Curriculum Framework

Education for Sustainable Development

Curriculum Framework
Education for Sustainable Development

2nd updated and extended edition, 2016

edited by

Jörg-Robert Schreiber and Hannes Siege

A contribution to the Global Action Programme

Education for Sustainable Development

Result of the joint project of the
Standing Conference of the German Ministers of Education and Culture (KMK) and the
German Federal Ministry of Economic Cooperation and Development (BMZ)

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*   taken unchangend from the 1st edition

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Foreword

Global sustainable development – a concern of educational policy

On 11. 06. 2015, we adopted the Curriculum Framework for Education for Sustainable Development in the plenum of the Standing Conference of the German Ministers of Education and Culture (KMK). On this occasion we took the opportunity to review more than a decade of constructive cooperation between experts in charge of development cooperation and in charge of education.
In 2007, the plenum of the Standing Conference of the German Ministers of Education and Culture adopted the first edition of the Framework. Meanwhile, this Framework has been implemented in many projects of the German federal states, partly supported by the German Federal Ministry for Economic Cooperation and Development (BMZ). An evaluation in 2013 showed encouraging results.

Target of the new edition is an extension and update of the Framework. The new Framework does not fundamentally change the approach and orientation of the 2007 version. In principle, the Framework remains integrated into the international pursuit of sustainability; it remains closely linked to the didactics of school subjects and to the competency model. But all of these elements have been updated and supplemented by several school subjects of Secondary Level I. Among those, we find subjects without any immediately apparent connection to global sustainable development, like, for example, Mathematics and Sport.
The chapter "Sustainable Development as task for the whole school" gives hints on how to integrate sustainability into the organisation and structure of daily school life.
Since 2011, within this project of KMK and BMZ, more than forty authors have contributed to this book of about 500 pages. A task force with representatives of science and civil society has accompanied this project.

The Curriculum Framework shall continue to provide conceptual support to the education systems and to the federal states' development of curricula, to teacher training on all levels, to textbook authors and editors of school supplies. It shall offer a guideline for schools to design profiles or full-day programmes, for their quality assurance and for the participation of external governmental and non-governmental competency. Last not least, the Framework provides a sound basis for continuing the successful cooperation of education and development.

Minister of State Brunhild Kurth
President of the Standing Conference of the German Ministers of Education and Culture

Global sustainable development – a concern of development politics

"Since its publication in 2007/2008, the Curriculum Framework has had considerable influence on the development and practice of Global Learning and hence on Education for Sustainable Development."

This is the result of an evaluation commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). The positive conclusion has encouraged the Standing Conference of the German Ministers of Education and Culture KMK and BMZ to publish the 500 page updated and extended new version of the "Curriculum Framework for Education for Sustainable Development".

In the new edition of the Curriculum Framework, adopted by the KMK plenum in 06/2015, we have put special emphasis on including the "Post-2015" Agenda on sustainable development. This agenda reaches far beyond classical development politics and the Millennium Development Goals which will expire by this year. It connects all dimensions of sustainability and is valid for all countries worldwide, not just for the developing countries. The new goals, to be adopted by the UN General Assembly in September, provide the chance for a new pact on the world's future with industrial and emerging economies contributing in terms of a global partnership. This partnership, however, can only come true if people learn to see themselves as parts of One World. Hence, for the first time, Education for Sustainable Development is included as an explicit goal.

Therefore it is my concern that our shared responsibility for a good future for all human beings on this planet will be addressed by education in Germany. This Framework is an important instrument to implement this goal. Within Global Development Education pupils and students should acquire core competencies such as the ability to change perspectives or to develop empathy and learn to see themselves as "Global Citizens" of the One World.

In order to further stimulate the debate about our German contribution to the implementation of this Agenda, the BMZ has launched the Charta for the Future to trigger a broad-based dialogue together with many stakeholders from civil society, politics, churches, business and science. In 2015 and 2016, we will organise the "ZukunftsTour EINEWELT – Unsere Verantwortung" (Future Tour ONE WORLD – our responsibility) to introduce and discuss the topics of the Charta for the Future in all federal states.

Here I would like to thank the federal states for their high level of willingness to support us in advancing Global Development Education. This way we can join our efforts to root the topics of sustainable development in society.

Dr. Gerd Müller
Federal Minister for Economic Cooperation and Development

The joint project of the KMK and BMZ
was launched during the KMK plenary session on 4. 03. 2004, in Berlin by Germany's Ministers of Education and the Federal Minister for Economic Cooperation and Development. On 12. 5. 2011, an update and extension of the Curriculum Framework for Education for Sustainable Development was passed by the KMK.

2. updated and extended edition:

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List of acronyms and abbreviations

AA	Federal Foreign Office
AFB	Range of requirements
agl	Arbeitsgemeinschaft der Eine-Welt-Landesnetzwerke in Deutschland e.V./Association of the One World working groups in Germany
ALLBUS	German General Social Survey
ASA	Work and study programmes
ASP-net	Associated Schools Project (of UNESCO project schools)
BMEL	Federal Ministry of Food and Agriculture
BIBB	Federal Institute for Vocational Education and Training
BINK	Educational institutions and sustainable consumptions
BLK	Federal states' Commission on Education Planning and Research Promotion
BMFB	Federal Ministry of Education and Research
BMZ	Federal Ministry of Economic Cooperation and Development
BNE	Education for Sustainable Development (ESD)
BpB	Federal Agency for Civic Education
BRICS	Brazil, Russia, India, China and South Africa
BMUB	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
CSD	Commission on Sustainable Development
DAAD	German Academic Exchange Service
DaF	German as a foreign language
DBU	German Federal Environmental Foundation
DESECO	Definition and Selection of Competencies
DOSB	German Olympic Sports Confederation
DSW	German Foundation for World Population
DUK	German UNESCO commission
EfA	Education for All
EFQ	European Qualifications Framework
ENSA	School Exchange Programme for Development Education
EMAS	Eco-Management and Audit Scheme
FEB	Development education promotion programme
FIFA	Fédération Internationale de Football Association
G7(8)	USA, United Kingdom, Canada, Japan, France, Germany, Italy, (Russia)
G20	Group of the twenty most important industrial and threshold countries
GER	Common European Framework of Reference for Languages
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH/German Society for International Cooperation
HRK	German Rectors' Conference
ICILS	International Computer and Information Literacy Study
IGLU	International Reading Literacy Study
IGU	International Geographical Union
IPCC	Intergovernmental Panel on Climate Change

IStGH	International Criminal Court
IQB	Institute for Quality Development in Education
IZEW	International Centre for Ethics in the Sciences and Humanities (Tübingen University)
KMK	Standing Conference of the Ministers of Education and Cultural Affaires of the federal states/Länder in the Federal Republic of Germany
KfW	Kreditanstalt für Wiederaufbau/Reconstruction Loan Corporation
LAA	Trainee teacher
LEB	Lifestyle – ethics – religion
MDGs	Millennium Development Goals
MINT	Mathematics, Computer Sciences, Natural Sciences, Technics
NRO	Non-Governmental Organisation (NGO)
OECD	Organisation for Economic Cooperation and Development
OWG	Open Working Group (UN working group for the drafting of the SDGs)
PASCH	Schools: Partners for the future
PISA	Programme for International Student Assessment
RNE	German Council for Sustainable Development
RSU	German Advisory Council on the Environment
SDGs	Sustainable Development Goals
SKEW	Service Agency Communities in One World
UN	United Nations
UNCED	United Nations Conference on Environment and Development (Rio 1992)
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
VENRO	Umbrella organisation of development and humanitarian aid non-governmental organisations (NGOs) in Germany
VN	Vereinte Nationen / United Nations
WAP	World Action Programme
WBGU	German Advisory Council on Global Change

BW	Baden-Wuerttemberg	BE	Berlin
HB	Bremen	HE	Hesse
NI	Lower Saxony	RP	Rhineland-Palatinate
SN	Saxony	SH	Schleswig-Holstein
BY	Bavaria	BB	Brandenburg
HH	Hamburg	MV	Mecklenburg-Western Pomerania
NRW	North Rhine-Westphalia	SL	Saarland
ST	Saxony-Anhalt	TH	Thuringia

Abstract

Education as foundation for sustainable development
The Curriculum Framework for Education for Sustainable Development (ESD) helps to implement the national strategy "from project to structure". It is a contribution to the new UNESCO Global Action Programme on Education for Sustainable Development following the UN ESD-decade and to the United Nation's 2030-agenda with the sustainable development goals (SDGs). Its focus is on ensuring that – in times of rising global challenges – quality of school education becomes the foundation for sustainable development.

A project of the Standing Conference of the Ministers of Education and Cultural Affairs and of the Federal Ministry for Economic Cooperation and Development
The Curriculum Framework is the result of the joint initiative of the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) and of the Federal Ministry for Economic Cooperation and Development (BMZ). On 04.03.2011, the KMK's school board agreed to updating the Framework first published in 2007 and to the extension into further school subjects. The evaluation of the utilisation of the first edition and experiences gained from implementation projects were to be taken into account. As previously, the BMZ was in charge of financial support and the organisational implementation of this project by Engagement Global (EG), under the guidance of the KMK ESD reporters. The working groups, composed of about 30 specialists in school subject didactics from universities as well as of teachers, was accompanied by a project group of representatives from the ministries of cultural affairs, from science and non-governmental organisations. The second edition of the Framework of Orientation is the result of a working process of approximately four years, including a multitude of suggestions in the course of a professional hearing on 03., 04.09.2014. On 11.06.2015, this new edition was adopted by the KMK plenum.

Inclusion of all school subjects
Following KMK's instructions, the extended new edition of the Framework refers to Primary Level and Secondary Level I and provides basics for the extension into Secondary Level II. This edition answers the quest for an extension of the learning area by the subjects German language, New foreign languages, Fine Arts, Music, History, Mathematics, Natural Sciences (Biology, Chemistry, Physics) and Sports. The chapter for primary education was updated as well. The chapters on the subjects Geography, Political Education, Religion/Ethics and Economy as well as on Vocational Education have been taken from the first edition without changes. In principal, all subjects until lower secondary school certification are now being included in the learning area of Global Development. An annotation and additional bibliography in the chapter on Vocational Education refers to last years' developments and to the need for action.

Tasks of the learning area Global Development
By a stronger practical orientation, the target groups of the new edition are – more than before – stakeholders at schools and their cooperation partners. The objective is to link this learning area with the schools' quality development in the context of self-reliant schools.

Here, learning area does not refer to a specific group of school subjects with an allocated number of lessons. Instead, the didactical concepts of the subjects are to be re-oriented step by step, the coordination between subjects facilitated, inter-subject and project-based forms of education inspired and a relationship with out-of-school activities or with life at schools strengthened. The Curriculum Framework is meant to be an impulse generator for education and administration at all levels and for educational service institutions and partners of cooperation. It is a frame of reference for the development of teaching/educational plans and school curricula, for the design of school lessons and out-of-school activities, for area and subject specific requirements and their evaluation and – even more so in the new edition – for school administration and the education of teachers.

Being challenged in a dynamically changing globalising environment, children and youth are as learners at the centre. From the perspective of the existing subject structures, it is shown how an education based on context and Lebenswelten (lifeworlds) can be designed by inter-subject coordination and increasingly self-organised modes of learning – an education oriented towards the fundamental principle of sustainable development. The point is not to add more themes, but to strengthen the subjects' contact to reality (and its perspective for a sustainable future). Competency based sample lessons for the newly included subjects may show how these targets can be achieved without an unrealistic extension of requirements at school.

Orientation at the fundamental principle of sustainable development

The learning area Global Development is a substantial part of Education for Sustainable Development (ESD); it supports the integration of ESD into school education. The overall orientation at the fundamental principle of sustainable development is based on a global consensus existing for more than 20 years. Following the principle of perspective change, as many different perspectives as possible are being included in the shaping of a sustainable future.

Unlike school subjects, the learning area Global Development is hardly based on empirically grounded concepts of reference sciences that have been differentiated over many years. Hence, it is mainly oriented at national and international resolutions on sustainable development and at a didactical concept of dimensions of development which is based on the principle of sustainable development that has been accepted and gradually extended by the community of states since the 1992 Rio Conference on Environment and Development. On the background of different interests of actors and taking into account cultural diversity, the concept provides orientation for the analysis of decisions and processes on different levels as well as insight into their interconnectedness. It needs to be taken into account however that – unlike in politics – the central principle of sustainable development in education is not meant to be a primarily normative sustainability paradigm in terms of "guarding rails" and defined limits of planetary carrying capacity or even desirable patterns of behaviour but rather to provide orientation for analysis, evaluation and action in processes of learning.

Education target, guiding principles, competencies and theme areas

The superior education target in the *learning area of Global Development* is to acquire basic competencies for a sustainable design of private and professional life, for the participation in society and for shared responsibility in a global context. The Curriculum Framework defines eleven core competencies in the fields of *Erkennen (Recognising) – Bewerten (Assessing) – Handeln (Acting)*, to which various competencies of school subjects refer, which are relevant for the learning area. Competencies are being acquired in dealing with themes in the process of learning. These are listed in a principally open catalogue of 21 theme areas that are relevant for Global Development Education.

The didactical approach for reaching these targets is based on five guiding principles:
- Orientation at the fundamental principle of sustainable development
- Analysis of development processes on different levels of action
- Appreciation of diversity
- Ability to change perspective
- Context- or Lebenswelt (lifeworld)-orientation.

Learning topic and basic assumptions

A learning area with globalisation as topic that connects local with global processes and encompasses all subjects at school is permeated by terms and basic assumptions like the understanding of sustainable development – which cannot be explained in detail in each context. Seven thematic boxes are inserted to explain such terms, with basic definitions that are valid for the whole Framework:
1. Global change – a challenge for our capacity to learn
2. Buen Vivir and sustainable development
3. National boards and resolutions on ESD
4. Eurocentrism
5. Global governance and the paradox of sovereignty
6. Sustainable Development Goals (SDGs)
7. Inclusion

Sustainable development (as key term) is not equated with growth but needs to be comprehended as sustainable development towards a quality of life for everyone, taking ecological conditions into account.

The six chapters of the Framework deal with interconnected yet separate subjects and can also be approached separately for implementing the aims of the learning area:

Chapter 1: Conceptual foundations of the Framework

Based on national and international resolutions and on scientific knowledge regarding global change, subjects and elements of the didactic concept are being shown. This concept is characterised by the coherent structure of the fundamental principle of sustainable development with its four dimensions economy – social affairs – environment – politics and respective target dimensions. It provides orientation for autonomous recognition, evaluation and action on all levels. There is reference to development politics and existing strategies of sustainability.

Chapter 2: Basic conditions at schools and educational challenges

Recent studies help to understand the change of Lebenswelten (lifeworlds) and the relationship of children and youth to globalisation and to values like sustainable development. Here, a focus lies on digital media and their utilisation which are particularly important for the learning area. Perception of the diverse conditions prevailing at schools is described as a precondition for mastering educational challenges of the learning area, e.g. for the forming of identities, for the development of value concepts and the ability to change perspective.

Chapter 3: Competencies, themes, standards, design of lessons and curricula

Eleven core competencies in the areas Erkennen (recognising), Bewerten (assessing) and Handeln (acting) are being deduced from the general education target and from the guiding principles of the learning area, and criteria for their selection are listed. In a similar way, 21 relevant thematic areas are being defined. The connection of selected competencies with adequate context-themes relevant to the learners' lives are in the focus of suggestions for the concrete design of lessons. In a sub-chapter, tools are offered for the construction of an internal school curriculum for Global Development Education.

Chapter 4: Implementation in school subjects and on different education levels

Here, apart from the unchanged texts of the first edition (Political Education, Geography, Religion/Ethics, Economy and Vocational Education) contributions for primary school level and on German language, New foreign languages, Creative Arts, Music, History, Mathematics, Natural Sciences (Biology, Physics, Chemistry) and Sports are to be found. They all describe the added value of the respective subject to the learning area, list subject-related competencies for the eleven core competencies, propose suitable topics and offer a competency oriented sample lesson.

Chapter 5: Sustainable Development as task for the whole school

Apart from the content-related coordination of school subjects within the learning area of Global Development the institution school as a whole gains in quality and outreach by aligning its profile with sustainability. This can encompass – as the situation may be – steering of the school development and school management, strengthening of the school boards and cooperation of actors, networking and partnerships as well as students' companies and resource management or the sustainable construction and furnishing of the school buildings. Inspiring examples from different parts of Germany as well as helpful contact information is given.

Chapter 6: The learning area Global Development in teacher education

For the generally recognised need to improve teachers' education in its structures and contents in order to strengthen Education for Sustainable Development, approaches in the three stages of teachers' education and training are presented. The requirements are being shown and proposals offered for handling the challenges in shared responsibility (universities, public institutions, professional associations etc.) as well as examples from different federal states of successful steps for the inclusion of the learning area Global Development into the teachers' education.

Implementation Concept

Mainstreaming the Curriculum Framework into new learning concepts

The 2nd edition of the *Curriculum Framework*: Education for sustainable development is now available in German and English, in printed and digital form[1]. A broad-based educational implementation has started, supported by the Federal Ministry for Economic Cooperation and Development (BMZ), through information events, conferences, seminars and projects, in cooperation with the 16 German federal states and civil society. The Curriculum Framework is targeted at curriculum designers, planners and senior executives at different levels of the educational system, and also directly at schools and their partners. Its practical implementation requires further support. Teachers and students need new project models, textbooks and learning material. In order to produce them, the close cooperation between subject didactics, teaching practice and textbook publishers is needed. Cross-curricular topics (e.g. diversity of values, cultures and living conditions; globalisation of economy and labour; peace and conflict; global environmental changes, cf. the 21 thematic areas of the Curriculum Framework) can be the focus, just as specific school subjects or the cooperation of subjects (see e.g. Meyer, C. (Ed. 2016): Diercke Geographie und Musik. Zugänge zu Mensch, Kultur und Raum, Braunschweig).

In any case, the didactical concept outlined in chapter 1 of the Curriculum Framework, and the competency based approach of chapter 3 should be addressed and implemented with the recommended student-oriented approaches. A particularly important contribution to educational transformation is a common agreement on values and objectives. Such an agreement can be seen in the global community's resolution on sustainable development goals (SDGs) and in the UNESCO impulses for the implementation of the Agenda 2030 in education. This basic understanding is integral to the Curriculum Framework and can also be found in the international and German efforts to implement the UNESCO Global Action Programme on Education for Sustainable Development.

In an increasingly globalised world, the principles of sustainable development have become the central values of a vulnerable and extremely endangered environment and humanity. The Agenda 2030 has declared sustainable development to be the joint objective of the 17 SDGs. The Agenda links this fundamental principle to the universal human rights and to the learning objective of global citizenship. The significance of education for the achievement of the SDGs is emphasised and determined by target 4.7. Here, Education for Sustainable Development (ESD) is mentioned as a key instrument for achieving these goals.[2]

It is a concern of the Curriculum Framework to connect different educational traditions like Environmental Education and Global Learning within ESD. In the desired transformation process the comprehensive sustainable development principle will be the value centre and common starting point of all school subjects and school activities (see graph).

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[1] The German edition can be ordered free of charge from Cornelsen Publishers:
http://www.cornelsen.de/lehrkraefte/reihe/r-7807/ra/titel/9783060656882, 7.10.2016
The English version (pdf) will be placed for download on:
http://www.engagement-global.de/globale-entwicklung.html and www.globaleslernen.de, 27.10.2016

[2] Target 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
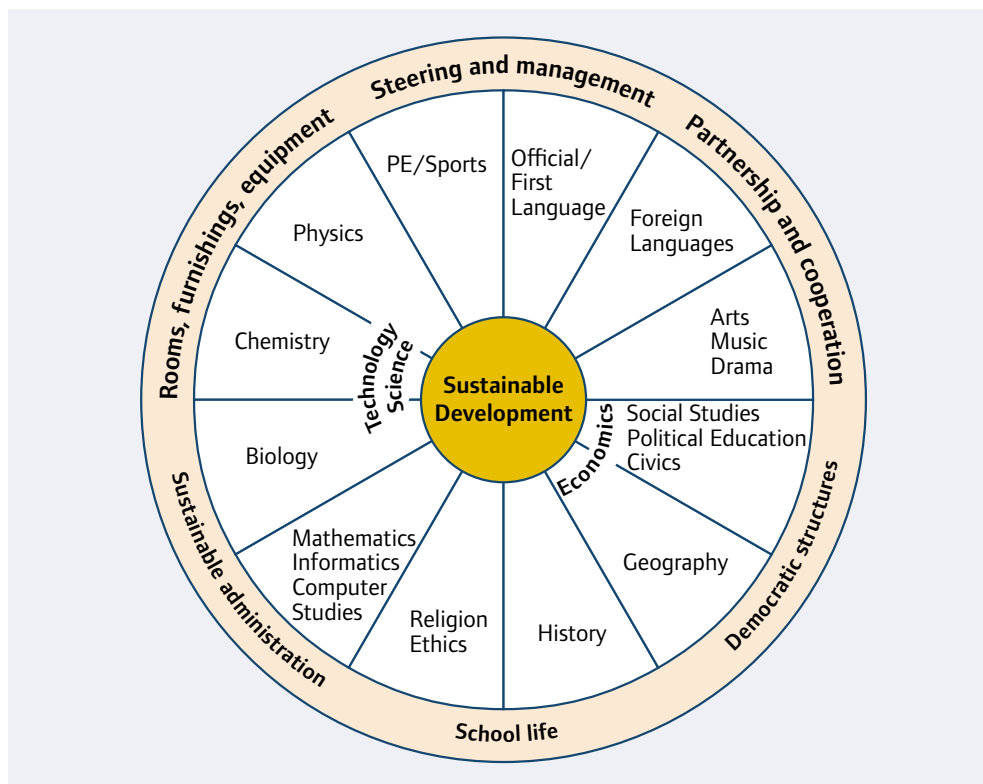
According to the Curriculum Framework learning processes at schools are not only based on common values, they also share common objectives: "Following the guiding principle of sustainable development, [they] aim at developing basic competencies for shaping one's personal and professional life, for active involvement in the transformation of society and for accepting shared responsibility on a global level."(chapter 3, p. 87). Moreover, relevant educational topics need to be related to the students' lifeworlds (Lebenswelten) and can usually not be taught meaningfully from the exclusive perspective of one school subject. Appropriate didactical and organisational forms of cross-curricular and subject-linking learning need to be developed and enhanced. Even where the chance is limited to implement these forms, the principle of sustainable development will be the foundation of all subjects and supplementary educational activities as well as of school management within a whole school approach.

To achieve these goals, the German BMZ and Engagement Global cooperate with the Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP), a UNESCO category 1 institute. MGIEP commits itself to a better integration and structural embedding of Education for Peace, Sustainable Development und Global Citizenship (EPSG). Even if this approach may seem unique and bold, it seems to be existential and has many features in common with the concept and impulses of the Curriculum Framework. The strong focus on peace can also be found in the Curriculum Framework, namely in thematic area 16 Peace and conflict. The goal-perspective "Good Governance" of the sustainable development principle embeds this focus into a larger context.

1 Conceptual foundations of the Curriculum Framework

Dieter Appelt (until 2013), Hannes Siege

1.1 Tasks and target of the Curriculum Framework

Severe environmental changes like the hazards of global warming, the shortage of natural resources and the loss of biodiversity as well as the dimension of global poverty, an increasing restriction of political rights and civil liberties in many parts of the world, wars and the threat by terrorism as well as the risks and crises of the financial systems are political, economic, social and ecological challenges. They intensify the awareness that a sustainable globalisation can only be designed with the objectives of sustainable development and new understanding of growth (see BOX 1 Global change - a challenge for our capacity to learn). The advancement of the Rio process for sustainable development after 2015 in connection with the follow-up programmes of major UN projects like the *Millennium Development Goals* (MDGs) put increasing emphasis on *Education for Sustainable Development* (ESD). Within this context, the UNESCO points out that it is in everyone's interest to make sure that the quality of education is in the centre of a development agenda "Post-2015" because it is the most important transformative force for sustainable development.[3]

At the same time, doubts arise regarding the possibility to control social change towards sustainable development within the present general framework. There is an increase in understanding that climate change cannot be totally avoided any more, that an effective delink of economic growth from the consumption of resources is not in sight, that several planetary limits have already been transgressed and that we hence also need to focus on developing strategies to adapt to the inevitable facts.[4]

The Earth Summit of Rio in 1992 was the starting point for the international acceptance of the guiding principle of sustainable development and for the necessity to attune social, economic and ecological objectives. In Germany, notably the BMZ and non-governmental development organisations (VENRO) emphasised – quite in line with the resolutions of the UN-steered follow-up process – the political perspective of "good governance" as additional important goal which got into focus during the follow-up conference in Johannesburg 2002. Since the 1990s, the guiding principle of sustainable development has been increasingly acknowledged by German politics and civil society.

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[3] UNESCO (2014): Position Paper on Education Post 2015, p. 1: "Education is a right that transforms lives when it is accessible to all, relevant and underpinned by core shared values. Because quality education is the most influential force for alleviating poverty, improving health and livelihoods, increasing prosperity and shaping more inclusive, sustainable and peaceful societies, it is in everyone's interest to ensure that it is at the centre of the post-2015 development agenda." (Irina Bokova)

[4] See the main expertise of WBGU (2011) on the Rio+20 conference (2012): http://www.wbgu.de/fileadmin/templates/dateien/veroeffentlichungen/hauptgutachten/jg2011/wbgu_jg2011.pdf, 27.10.2016

| BOX 1 | **Global change – a challenge for our capacity to learn** |

Since the end of the Cold War four mutually reinforcing waves of global change create a new reality of the international system:

1. **networked global economy:** the accelerating economic globalisation which creates manifold chances but at the same time global vulnerabilities and risks;

2. **diffuse power structures:** The tectonic shifts of power towards the emerging countries, most of all China, India, Brazil, which undermine the Western dominance and create polycentric power constellations and blockages;

3. **Anthropocene – the geological epoch of mankind:** the realisation that mankind has become the driving force in the earth system, and that it is likely that within this century there will be a change in the earth system with incalculable effects for nine Billion people, if the global economy will go ahead on the mainstream growth path producing greenhouse gases and consuming natural resources;

4. **Communication infrastructures for the global society:** For the first time in the history of mankind the new communication technologies make a global exchange of information, knowledge and news possible in real-time. New, virtual, cross-border cooperation areas are thus created and at the same time hitherto unknown modes of data control and supervision.

In the new international system of an extremely cross-linked world, we have not yet found or invented a political order that could provide security, prosperity and democracy for as many global citizens as possible.

The 21st century is marked by an emerging global society with a so far unknown density of global cultural, economic and political networks. A global market economy is arising which can be beneficial also for non-Western societies, but which is impending to transgress the limits of the earth system.

Global systemic risks are challenging a political world order which is diffuse at the beginning of the 21st century and doesn't have a clear centre. The problem solving strategies of this world order may take very different forms like juridification (e.g. the establishment of the IPCC), informal networks of coordination (like G 7, G 20, BRICS) or relapses to sometimes anachronistic power politics (like currently in the Ukrainian crisis).

We are living in a "time between" – between the era of the nation states with most people's lives basically depending on the dynamics within their own nations, as long as "external peace" was assured, and the era of an extremely cross-linked global society, which the nation states have but limited chances to "steer". But at the same time we are living in a transition period. This period is crucial for the question whether humanity will learn to accept responsibility for the stability of the earth system and hence for the livelihood of many future generations.

The creation of a global culture of cooperation is the precondition for peacefully designing the global interdependencies of the 21st century. It is the precondition for checking the global systemic risks and for stabilising the global common goods (most of all the earth system, but also the international financial markets) and to use them on the basis of generally accepted criteria of fairness.

Dirk Messner, Director of the German Development Institute (DIE), co-chairman of the German Advisory Council on Global Change (WBGU)

Federal and federal states/Länder governments align with this principle. In 2002, the German federal government launched the first national sustainability strategy[5], which is continuously developed and in which ESD will be given growing importance. Sustainability strategies can be important political tools on different levels for achieving education goals (globally, on the European and national level, for the federal states/Länder and communities; see Bertelsmann Stiftung 2014).[6]

Following the increasing awareness of the problems caused by a very dynamic globalisation – of ecological challenges, poverty and human rights violations – Environmental Education and Global Learning have consequently aligned their concepts towards sustainability. Processes of education are to be focussed on a guiding principle with four target dimensions of development – economic performance, social justice, ecological compatibility and good governance – which provide orientation for responsible evaluation, judgement and action (see fig. 9, p.89). In light of the target conflicts between the four dimensions of development and the need for coherence, we are searching for sustainable synergies and ways to overcome (or alleviate) such conflicts against the background of a variety of cultural and socio-economic situations and interests as well as human rights.

Education for sustainable development (ESD) has given important stimuli and had an integrating impact in the context of the UN decade with the same name (2005–2014). In the passed years, schools have integrated ESD in a variety of ways into their education portfolio, and they are on their way to fix this in their structures beyond singular projects. The extended new edition of the *Curriculum Framework for Education for Sustainable Development* is meant to support the acquisition of respective competencies in as many subjects as possible and to realise sustainability at school, not only during lessons, but also in school administration and management (see chapter 5).

In view of growing challenges, children and youth need to develop sustainability competencies for their own life and environment and for their professional and social future perspectives. Systems of education need to enable such qualifications, as the globalisation of economy and society constantly changes the fields of activity and hence also the profiles of qualification for the employees in almost all sectors and fields of profession.

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[5] See: https://www.bundesregierung.de/Content/Infomaterial/BPA/Bestellservice/Globale_Ziele_nationale_Verant-
    wortung_25-05-2106.html, 27.10.2016
[6] Bertelsmann Stiftung (Ed. 2014): Nachhaltigkeitsstrategien erfolgreich entwickeln, Gütersloh
    http://tinyurl.com/nam6h8w, 27.10.2016

The **guiding principles for Global Development Education/ESD** in order to realise these objectives are:
· Orientation towards the principle of sustainable development
· Analysis of development processes[7] on different levels of action
· Appreciating and handling diversity
· Ability to change perspective
· Context- or Lebenswelt (lifeworld)-orientation

The overall orientation towards the principle of sustainable development is based on a global consensus existing for more than 20 years. Following the principle of multiperspectivity, as many different perspectives as possible are being included in the shaping of a sustainable future. (see BOX 2 Buen Vivir and sustainable development).

Global Development Education/ESD is designed to be interdisciplinary and subject-connecting. It has substantial features of a domain[8]: a distinctive scope of themes, a specific access to the world and a foundation on a didactic concept.
The framework for orientation refers to the Primary Level and Secondary Level I and provides basics for the extension towards higher secondary education (Level II). With the (unchanged) text on vocational education from the first edition (2007), it also provides support in this field. The subject of learning and the conceptual basics are being described (chapter 1), the framework for the implementation within educational or teaching plans and school curricula are defined (chapter 3), and, taking into account existing education plans and standards, it is connected with the curricula of the respective school subjects (chapter 4). The Curriculum Framework for orientation offers competency oriented sample lessons for the implementation in different school subjects and in subject-linking projects. Furthermore, it gives support for the design of lessons and extracurricular activities, for cooperation with partners from civil society and for specific requirements and their monitoring in learning fields and subjects. The Framework also describes the schools' basic conditions (chapter 2) as well as the challenge of approaching sustainable development as an integrated institution (chapter 5) and shows the consequences and requirements for teacher education (chapter 6).

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[7] This (as well as terms like *development project, development objective* etc.) explicitly includes *developments* in the whole world. Development is not – unlike frequently in the context of development politics – restricted to events/measures in developing or newly industrialised countries

[8] Regarding the term domain in the context of models of school competency, see: Klieme, E. et al. (2003): Zur Entwicklung nationaler Bildungsstandards, p. 59

BOX 2   Buen Vivir and sustainable development

In a recent meeting of the members of the *Suma Uta* network of community elders to exchange views on *Buen Vivir* or Suma Jakaña ("virtuous walking" in Aymara), each of the 15 participants, women and men, provided a different version emphasizing what they considered its main characteristic. Finally they all agreed that each of the 15 definitions was essential to the understanding of what *Suma Jakaña* actually is. If only one of them was left out, they said, it would not be *Suma Jakaña*. The lesson we can distil from this exercise is the futility of attempts at a precise, hence limited and limiting, definition and the impossibility of encapsulation lively mutual learning in the framework of planning aimed at externally fixed objectives.

With their co-authoring of a notion of *Buen Vivir*, the *Suma Uta* elders would have agreed with David Choquehunca, the widely respected Bolivian foreign minister who has been reported as saying that *"Buen Vivir means sharing […] living in community, in fraternity and, especially, in complementarity […] not competing, living in harmony among peoples and with nature, producing for our needs protecting the environment […] [to] recover the health of Mother Earth."*

Buen Vivir thus is not a utopia. It is a personal experience lived within communities that share a culture, a cosmovision and a way of life. Even if it is a culture-specific expression of the wisdom of the indigenous peoples of the central Andes, the notion of *Buen Vivir*, understood as good living inheres in all cultures. Its present celebrity should serve as a reminder of its absence in the dominant development discourse where it should squarely belong as the central component of the now invisible cultural pillar of sustainability. In consequence, in the central Andes, Buen Vivier is tantamount to sustainable development.

Along with community, another abiding feature of definitions of *Buen Vivir* in the central Andes is its constant association with living in peace. Peace appears to be the transcultural context in which good living is experienced by the local communities and may thus provide an indispensable platform for intercultural dialogue regarding sustainability.

As a working concept, *Buen Vivir* has been applied in framing the construction of two central Andean countries: Ecuador (2008) and Bolivia (2009). As such it has mainstreamed in public consciousness the questioning of the belief that economic growth, tantamount to "living better", necessarily leads to *Buen Vivir*. For the indigenous peoples of the central Andes, it has made clear, that growth based on the exploitation of natural resources means the loss of access to their ancestral lands, and thus, the demise of a mode of living that has proved to be sustainable over millennia.

Jorge Ishizawa, coordinator of the Proyecto Andino de Tecnologias Campesinas-PRATEC in Peru (development dialogue 59, 2012, with kind permission of Dag Hammarskjöld Foundation)

1.2   Development of the concept

1.2.1   Reference points of Global Development Education in the context of Education for Sustainable Development

Unlike in the traditional school subjects, Global Development Education needs to be described, i.e. the challenge of global development in view of our sustainability (see BOX 1 Gobal change - a challenge for our capacity to lean). While school subjects are clearly focused on one or more reference sciences, Global Development Education is mainly defined by:

- resolutions on international and national levels in different fields of politics, particularly development, economic, social and environmental politics
- scientific theory and current analyses of relevant sciences in these fields as well as of educational studies
- demands of orientation and qualification regarding globalisation and sustainable development, on the levels of society and the individual
- the reference to objectives of sustainable development as well as concepts and programmes of Education for Sustainable Development
- the compatibility with the didactic concepts of involved school subjects

1.2.2   Update and extension to the Framework

On 11.06.2015, the updated and extended Framework was adopted by the KMK plenum. It is a follow-up of the ESD decade – 2005 to 2014 – and includes the work of the federal states/Länder and civil society for its implementation. The effects of the Framework have been evaluated in 2012/2013 according to the decision of the KMK-Amtschefkonferenz/ Committee of the Permanent Secretaries of the KMK, dated 13.05.2011. The results of this evaluation[9] have been considered by the updated and extended version of the Framework. Information from the following areas has been collected:

1. Distribution of the Framework in its online and printed version
2. Utilisation of the Framework in ministries and responsible institutions of the federals states
3. Utilisation of the Framework by non-governmental organisations
4. Inclusion of the Framework in teacher education in the first, second and third stage and in research
5. Publicly (co-)funded implementation projects on the Framework

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[9]   Schoof-Wetzig, D. for Engagement Global (2014): Auswertung der Nutzung des Orientierungsrahmens zum Lernbereich Globale Entwicklung im Rahmen einer Bildung für nachhaltige Entwicklung www.engagement-global.de/globale-entwicklung.html, 27.10.2016

In these areas the framework produced effects showing that the chosen design of the field of education has to guide the update, extension and implementation through the description of the contribution of school subjects. In addition, the need has been discerned to increasingly include extracurricular fields of activity with regard to school development. This need will be taken into account by including a new chapter 5 "Global Development Education as a task for the whole school". The request to put more emphasis on teacher education is complied with in chapter 6.

For the first edition of the Framework the responsible KMK-BMZ project has produced several evaluations and expert studies.[10] They are available on http://www.engagement-global. de/globale-entwicklung.html, supplemented by further professional contributions on Global Development Education. The central portal on Global Learning (www.globaleslernen.de) offers a section for all practical questions, particularly teaching material. The extended new edition of the Curriculum Framework is an answer to the general request and KMK's instruction to augment Global Development Education by including (on Secondary Level I) the subjects German Language, New Foreign Languages, Fine Arts, Music, History, Mathematics, Natural Sciences (Biology, Chemistry, Physics) and Sports. The chapter for Primary Education was updated as well. The chapters on the subjects Geography, Political Education, Religion/Ethics and Economics have been taken from the first edition without changes. In a preliminary note and an additional bibliography, the 1st edition chapter on Vocational Education refers to recent developments and to the need for action.

1.2.3   International and national resolutions

International resolutions
The *United Nations Conference on the Human Environment* in Stockholm 1972 has paved the way for an environment agenda, giving voice to the growing concern that natural resources and hence also economic growth are limited.[11] But the Stockholm agenda was mainly noticed in industrialised states, with little influence on developing countries at that time. One result of the conference was the foundation of UNEP (United Nations Environmental Programme), bringing the environmental agenda closer to the developing countries. Following the Stockholm conference, environmental education came up and strengthened the overall awareness of environmental challenges.

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[10] e.g.
  · Documents of the 3. KMK-BMZ Conference of experts, 2004:
    Ferdowski, A.: Nachhaltige Entwicklung – Die (welt)politische Dimension
    Loose, O.: Nachhaltige Entwicklung – Die gesellschaftliche Dimension
    Overwien, B.: Sichtung des Sach- und Diskussionsstandes zur entwicklungspolitischen Bildung an Schulen
    Rauch, T.; Tröger, S.: Nachhaltige Entwicklung – Die gesellschaftliche Dimension
    Wolff, P.: Nachhaltige Entwicklung – Die wirtschaftliche Dimension
  · Documents of the 4. KMK-BMZ Conference of experts, 2006:
    Knoerzer, M: Lehrplananalyse Grundschulen
    Schmitt, R.: Befragung von 30 Repräsentanten zur entwicklungspolitischen Bildung an Schulen
[11] Meadows, D.H.; Meadows, D.L.; Randers, J. et al. (1972): The Limits to Growth: a report for the Club of Rome's project on the predicament of mankind, New York.

Almost simultaneously, UNESCO's General Assembly of 1974 passed a *Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms*. With its competency objectives and demand for a "global perspective" regarding all areas of education and life-long learning, this is regarded as an important reference document of "global education", becoming a programmatic voice in the 1970s. Drafted 40 years ago, UNESCO's recommendation is still paramount for the understanding of Global Learning (see Seitz, K. 2002, p. 367 f). In 2012, the UN General Assembly reinforced human rights education and thereby attached new importance to the UNESCO recommendation.[12]

Later, the *United Nations Conference on Environment and Development* of Rio 1992 was the starting point for the international acceptance of the model of sustainable development as combination of developmental and environmental aspects, including social and economic dimensions. The summit led to the passing of the *Agenda 21*, an action agenda for global sustainable development. "The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations." (Rio Declaration on Environment and Development, Principle 3).[13]

The following basic principles are linked to the Agenda 21 and the guiding principle of sustainable development:
· **Responsibility of the generations:** Responsibility for future generations, but also for balance within presently living generations,
· The **principle of coherence**, meaning the link of social, economic and ecological objectives,
· The **principle of participation**, meaning that different stakeholders (business, science, social groups, individual citizens) are better included in the development and implementation of sustainability strategies, and
· The **common but different responsibility** of industrialised and developing countries.

The resolutions that were passed in 1992 in Rio and at the follow-up conferences like in Johannesburg (2002) and Rio+20 (2012), are parts of the political reference framework of the international community, even if many stakeholders complain that in the 20 years between the two summits of Rio, hardly any programmatic or binding political progress has been achieved. The *Earth Summit Rio+20* (2012) mainly focussed on balancing out the economic and ecological dimensions of sustainable development as "green economy", in order to connect the fight against poverty with the ecological challenge. In the final declaration, the international community did yet not make major progress regarding the most severe ecological challenges like climate change and the loss of biodiversity. Nevertheless, they confirmed the main tenor of the *Millennium Development Goals* (MDGs) to fight poverty. Hence, the final document of Rio+20 points out in § 2 that the international consensus has

[12] United Nations (2011): United Nations Declaration on Human Rights Education and Training, (Resolution A/RES/66/137)
https://documents-dds-ny.un.org/doc/UNDOC/GEN/N11/467/04/PDF/N1146704.pdf?OpenElement, 27. 10. 2016
[13] United Nations (1992): Rio Declaration of Environment ansd Development
www.un.org/documents/ga/conf151/aconf15126-1annex1.htm, 27. 10. 2016

moved on from an environmental agenda towards a development agenda. §2 states: "Eradicating poverty is the greatest global challenge facing the world today and an indispensable requirement for sustainable development. In this regard we are committed to freeing humanity from poverty and hunger as a matter of urgency."[14]

This change of focus in international consensus towards an agenda of fighting poverty, on the basis of economic growth, demonstrates the growing influence of developing countries, particularly newly industrialising countries like India, China, Brazil. One of their concerns is the call for binding standards of emissions from industrialised countries – a call that poorer countries regard as a kind of luxury problem of the industrialised nations. Especially the newly industrialised countries argue that such standards will inhibit their economic growth and hence their fight against poverty. Furthermore, critics say that those who have hitherto caused the problems of climate change by their unsustainable lifestyle, don't have the right to impose restrictions on those whose modes of production and consumption has contributed but little to the problems. Also, they would suffer most from the negative effects of climate change.

Any compromise in the field of climate policy ultimately has to care not only for a common understanding, based on scientific realisation, of that something needs to be done (e.g. to reduce the global emissions of CO_2); it also needs to show how the principle of "common but different responsibility" between industrialised and developing and threshold countries, passed in Rio in 1992, can be implemented in practice. The results of the Conference Rio+20 have particularly disappointed those who had hoped for progress regarding the international agreement on CO_2 emissions. In addition to the efforts of the last global conferences, efforts have been made to achieve the UN *Millennium Development Goals* – MDGs[15] until 2015, in particular with regard to the eradication of poverty (MDG 1). Furthermore, MDG 7 is targeted at "ecological sustainability" whereas MDG 2 and MDG 3 focus on education. Here, education is not aiming at "learning sustainability" but focused on basic competencies like reading, writing, arithmetic and natural science as preconditions for sustainable development.

Often, despite the agreed monitoring and indicators, the MDGs have been criticised as being too limited. This critique refers to the fact that sustainability is explicitly mentioned only in the context of ecology and that, unlike the objectives of sustainable development – as for instance the aim to reduce the CO_2 emissions – the MDGs don't include any objectives for or commitments of the industrialised countries.

[14] Rio + 20 Declaration 2012: The Future we want
      https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf, 27. 10. 2016
[15] http://www.un.org/millennium/declaration/ares552e.htm, 27. 10. 2016

In 2013, the United Nations' General Assembly has committed to pass a *"Post-2015" development agenda* in autumn 2015 to be valid for another 15 years. In order to prepare for the much awaited combination of *Sustainable Development Goals* (SDGs) and *Millennium Development Goals* (MDGs), an unusually wide process of intergovernmental, scientific and non-governmental consultations was initiated[16]. During this process, the United Nations' "High Level Panel" offered the following framework proposal for a new target system:

1. **Leave no-one behind** – eradication of all kinds of extreme poverty until 2030
2. **Put sustainable development at the core of politics** all over the world
3. **Transform economies for jobs and inclusive growth** – put an end to growth without employment effects
4. **Build peace and effective, open and accountable institutions for all**
5. **Forge a new Global Partnership** for change in international politics in order to respect the strong interdependencies.

The new basic qualities of this proposal are:
* the universality of the global "Post-2015"-Agenda agenda; all countries share the responsibility and have to contribute accordingly,
* an equitable global partnership based on common values and a structural transformation as new paradigm in order to stay abreast of the growing global dependencies and interdependencies between actors and sectors,
* global framework conditions like the stabilisation of the financial system, actions against climate change, peace and security[17]

The defined goals (see BOX 6 Sustainable Development Goals (SDGs)) that have been identified in an open process with global participation convey a comprehensive understanding of sustainability. The SDGs define sustainability goals which in total are targeted at a "good life" for everyone. In the context of the "Post-2015" Agenda, they are to be checked by using indicators which themselves account for the emerging critique against traditional indicators of progress (such as GDP) and against the equation of growth with sustainable development[18] (see Martens, J. and Obenland, W. 2014).

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[16] See i.a. www.worldwewant2015.org, 27.10.2016
[17] See Rödiger-Vorwerk BMZ, for Bundespräsident a.D. Prof. Dr. Horst Köhler, UN High-Level Panel on the Post-2015 Development Agenda (06/2013): A new global partnership: eradicate poverty and transform economies through sustainable development, Short Summary of the Report
[18] The German Parliament Enquête Commission "Growth, Prosperity, Quality of Life" says in their final report of 2013 (http://link.springer.com/article/10.1007/s40309-014-0058-1, 27.10.2016) that it is about prosperity for all citizens, and that economic growth and the focus on increasing the GDP are no political goals

Education for Sustainable Development (ESD) plays a crucial role in the context of these efforts of the international community to come to a procedural consensus for a better integrated and more effective *Global Development Agenda "*Post-2015*"*. For example, in 2014, the UNESCO adopted a global action programme on ESD which is initially valid – after the phasing out of the ESD global decade (2005–2014) – from 2015 to 2019. This action programme shall directly contribute to the "Post-2015" development agenda and connect with a follow-up programme of the UNESCO Initiative *Education For All* (2000–2015). The *Global Education First Initiative* of the United Nations' General Secretary mentions three priorities: Every child in school, Quality of learning, Global Citizenship. It states: "It is not enough for education to produce individuals who can read, write and count. Education must be transformative and bring shared values to life. It must cultivate an active care for the world and for those with whom we share it. Education must also be relevant in answering the big questions of the day. Technological solutions, political regulation or financial instruments alone cannot achieve sustainable development. It requires transforming the way people think and act. Education must fully assume its central role in helping people to forge more just, peaceful, tolerant and inclusive societies."[19]

The Curriculum Framework for Education for Sustainable Development contributes to the implementation of the UN decade *Education for Sustainable Development* (2005–2014) and to the realisation of the ESD *World Action Programme* (WAP) starting in 2015. The new ESD *World Action Programme* shall be implemented decentrally, based on the experiences of the ESD decade. It is focused on providing qualitative education which is oriented at the relevance of current issues. As transformative education it is targeted at aligning societies towards sustainable development. At the national closing conference of the ESD decade in Bonn in 09/2014, governmental and non-governmental actors – as before at VENRO's[20] civil society ESD closing conference – voted for a strong commitment to the upcoming implementation of the ESD *World Action Programme* and for an ESD concept "with a comprehensive and transformative challenge for the education system".[21]

Education for Sustainable Development (ESD) includes all activities that are oriented towards the fundamental principle of sustainable development. It connects different traditions of education and different focuses, such as **environmental education, Global Learning**, consumer education etc.[22] The programmes of BLK and Transfer 21[23] as well as the world decade *Education for Sustainable Development* (ESD) have addressed the inclusion of

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[19] www.globaleducationfirst.org , 27. 10. 2016
[20] http://venro.org/uploads/tx_igpublikationen/Abschlussdokumentation_BNE-Konferenz_2014.pdf , 27. 10. 2016
[21] http://www.bne-portal.de/sites/default/files/2014_Bonner_Erklaerung_deutsch_0.pdf , 27. 10. 2016
[22] See UNESCO (2013): World Action Programme Education for Sustainable Development
  http://unesdoc.unesco.org/images/0023/002305/230514e.pdf , 27. 10. 2016
[23] Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK 1998): Orientierungsrahmen Bildung für eine nachhaltige Entwicklung

global contexts with regard to the world climate and complex social conditions for the global preservation of biodiversity and thus widened environmental education. Global Learning, traditionally more focusing on social, economic and human rights aspects of development, has increasingly opened for the discussion of ecological problems.[24]

The **KMK report** *On the situation and perspectives of Education for Sustainable Development* (2012)[25] comes to the conclusion that ESD has to a large extent been included in the educational/teaching plans of the federal states/Länder; it also states that the KMK-Framework offers structural support for the cross-curricular and subject-linking integration of ESD at schools. The federal states have emphasised the significance for an improved cooperation within the school and particularly with external educational actors. There is a clear plea that ESD should be the central task of education and civil challenge beyond the end of the UN decade (2005–2014). Many stakeholders regard the strengthening of teacher education and the inclusion of external educational actors as very essential. Some federal states have asked for the development of a comprehensive ESD strategy – without closing against different approaches (e.g. nature and environmental education, Global Learning).

On **05. 03. 2015**, the **German Bundestag** has adopted a resolution to call the federal government "to support the World Action Programme (WAP) *Education for Sustainable Development* and to intensify the existing efforts to implement Education for Sustainable Development."[26]

The Federal Ministry of Education and Research (BMBF) has announced the intention to implement this resolution and to face the challenge of the **Future Strategy ESD 2015+**[27] "from project to structure". A national action plan of the WAP is to contribute substantially to the implementation of a global agenda on sustainable development ("Post-2015" Agenda of the United Nations).

In its recommendation for the Federal Government, the Advisory Board for Sustainable Development (Rat für nachhaltige Entwicklung) states, that "in Germany, 'sustainability' is not yet a fundamental principle of action and decision". It further says, that global human rights policy, climate policy, biodiversity policy and the World Action Programme on ESD have to become "one" process.[28]

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[24] For non-governmental providers, Michelsen, G.; Rode, H.; Wendler, M.; Bittner, A. have empirically determined a convergence of both perspectives (2013): Außerschulische Bildung für nachhaltige Entwicklung: Methoden, Praxis, Perspektiven; eine Bestandsaufnahme am Beginn des 21. Jahrhunderts (DBU-Umweltkommunikation). München

[25] http://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2012/2012_12_13-Bericht-BNE-2012.pdf , 27. 10. 2016

[26] http://dip21.bundestag.de/dip21/btd/18/041/1804188.pdf , 27. 10. 2016

[27] http://www.bne-portal.de/de/node/485 , 27. 10. 2016

[28] http://www.nachhaltigkeitsrat.de/fileadmin/_migrated/media/RNE_Stellungnahme_Deutsche_Nachhaltigkeits-Architektur_und_SDG_26-05-2015.pdf , 27. 10. 2016

BOX 3   National boards and resolutions on ESD

For the implementation of international resolutions on sustainable development, the German federal government has created several boards, commissions and advisory councils:
- Bundestag Enquête Commission on the "Protection of Humanity and the Environment", which presented its final report in 1998 (see below)
- Bundestag Enquête Commission on "Growth, prosperity, quality of life – Ways to sustainable economy and social progress in the social market economy" which presented its final report in 2013 (see below)
- Board of experts for environmental matters (SRU, since 1971)
- Scientific Advisory Council on Global Change (WBGU, since 1992)
- Board of secretaries of state for sustainable development (since 2001)
- Advisory Board for sustainable development (since 2001)
- Bundestag Advisory Group on sustainable development (since 2005)

Governmental and non-governmental resolutions, reports and declarations:
- Enquête Commission of the German Bundestag on the "Protection of Humanity and the Environment": "The Concept of Sustainability", 1998
- Bundestag Enquête Commission on "Growth, prosperity, quality of life – Ways to sustainable economy and social progress in the social market economy" which presented its final report in 2013 (Bundestag document No. 17/13300)
- German Federal Government, National Sustainability Strategy, 2002 plus progress reports 2008 and 2012
- Federal Ministry of Education and Research: "Reports of the Federal Government on Education for Sustainable Development", 2002, 2005, 2009 and 2013
- German Bundestag: Resolution of the Action Plan on the UN Global Decade Education for Sustainable Development (1.7.2006, Bundestag document 15/3472)/Resolution on "Education for Sustainable Development", (26.4.2012, Bundestag document 17/9186)/Answer of the Federal Government to a brief enquiry "From the decade to the World Action Programme: Education for Sustainable Development" (16.4.2014, Bundestag document 18/1211)/ Resolution "Education for Sustainable Development – facing the future with the World Action Programme" (5.3.2015, Bundestag document 18/4188)
- German National Committee for the UN Decade Education for Sustainable Development: National action plan for Germany, 2011; position paper "Zukunftsstrategie BNE 2015+" (future strategy ESD 2015+), 2013
- Recommendation of the Standing Conference of the German Ministers of Education and Culture (KMK) and the German UNESCO Commission on "Education for Sustainable Development at school" (2007)
- Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the federal states/Länder in the Federal Republic of Germany/Kultusministerkonferenz (KMK)
- Standing Conference of the Ministers of Education and Cultural Affairs of the federal states/ Länder in the Federal Republic of Germany/Kultusministerkonferenz (KMK)
- Association of the German Development Non-Governmental Organisations – VENRO: Discussion papers on the start (2005), halftime (2009) and closing of the UN decade "Education for Sustainable Development" (2014)
- Resolutions of the German states' Minister Presidents on development politics 2008, 2014: www.entwicklungspolitik-deutsche-laender.de
- Several resolutions of the German federal states/Länder on ESD; compilation: http://www.wusgermany.de/index.php?id=2205

1.3   Global development as object of the Framework

1.3.1   The target dimensions of the fundamental principle of sustainable development

The resolutions of Rio and Johannesburg are a mixture of programmatic objectives like the *Agenda 21* of Rio 1992, the very detailed catalogue of measures of Johannesburg 2002 and the compromise formula of Rio+20, 2012. In order to connect and unite these resolutions and efforts, the definition of the fundamental principle of sustainable development needs to remain abstract, if it wants to define future-open basic principles for the long-term process of sustainable development.

Rio Declaration on Environment and Development (Rio Declaration) 1992
Principle 3: The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.
Principle 4: In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.
As many other parts of the Declaration, *Principle 7* mentions the "common but differentiated responsibilities" of States.

Earth Summit 2002, Johannesburg
"Since the Rio Earth Summit in 1992, sustainable development has emerged as a new paradigm of development, integrating economic growth, social development and environmental protection as interdependent and mutually supportive components of long-term development."[29] The fundamental principle of sustainable development is augmented by political, legal and cultural dimensions: "Peace, security, stability and respect for human rights and fundamental freedoms, including the right to development, as well as respect for cultural diversity, are essential for achieving sustainable development and ensuring that sustainable development benefits all."[30]

World Summit Rio+20, 2012
Principally, the Earth Summit of Rio 2012 has confirmed the resolutions of the preceding conferences; but it emphasises stronger than before the need of turning away from unsustainable patterns of consumption and production:

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[29] United Nations, Johannesburg Summit on Sustainable Development 2002, Foreword to the Catalogue of Measures, by Nitin Desai, General Secretary of the Earth Summit: https://sustainabledevelopment.un.org/content/documents/critical_trends_report_2002.pdf , 27.10.2016
[30] Report of the Earth Summit on Sustainable Development, Johannesburg, 2002, p. 15 http://www.bmub.bund.de/fileadmin/bmu-import/files/pdfs/allgemein/application/pdf/johannesburg_declaration.pdf , 27.10.2016

§ 3. We therefore acknowledge the need to further mainstream sustainable development at all levels, integrating economic, social and environmental aspects and recognizing their interlinkages, so as to achieve sustainable development in all its dimensions.

§ 4. We recognize that poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development.[31]

1.3.2   Understanding the target dimensions as dimensions of development

In order to make the topic of globalisation accessible for education, we can demonstrate that the four target dimensions of sustainable development (social justice, economic performance, good governance and ecological compatibility)[32] are four dimensions of development in the social, economic, political and environmental area that need to be focused and coordinated for a sustainable future development (see Fig. 1, p. 38).On the background of different interests of actors and taking into account cultural diversity, the concept provides orientation for the analysis of decisions and processes on different levels as well as insight into their interconnectedness. It needs to be taken into account that – unlike in politics – the fundamental principle of sustainable development in education is not meant to be a primarily normative sustainability paradigm of "guide rails" or defined limits of carrying capacity but rather to provide orientation for analysis, evaluation and action in the process of learning.

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[31] Resolution of the UN-General Assembly (27. 7. 2012): The Future we want, §§ 3 and 4
     http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E, 27. 10. 2016
[32] These four interdependent dimensions have also repeatedly been highlighted by the Sustainable Development
     Solutions Network (SDSN)

World

Transnational
unit

Nation, State

Region

Community

Family,
Small Group

Individual

Social Affairs
Themes:
Demographic development
Urban-rural relations
Culture/lifeworld
Religions
Language/communication
Mobility
Socialisation/education
Solidarity systems
Health

Economy
Themes:
Economic system
Economic sectors
Informal structures
(e.g. subsistence, petty business)
Foreign trade
Commoditiy markets/Trade
Financial markets/Labour market
Technology/Energy
Agriculture

Politics
Themes:
International structures
State structure
System of rule
(e.g. forms of democracy)
Legal system
Lobbies/representation
of interests (e.g. political
parties, NGOs)
Internal and external
security

Environment
Themes:
Natural space, Lithosphere
Soil
Biosphere/flora, fauna
Air/climate, water
System relation human
 being-nature
(e.g. use of resources)

Individual Family, Small Group Community Region Nation, State Transnational unit World

The quadrants indicate the respective levels through all the dimensions. According to the analytical
purpose and the current development it may be useful to select different levels and elements.

Fig. 1: Development dimensions

1.3.3   The structural levels (levels of action) of the development dimensions

To a large extent, acting within any of the four dimensions is determined by specific but not
isolated processes/steering modes on the respective level. In the context of the family, pri-
marily personal contacts convey how we are expected to act, based mainly on informal,
socio-culturally shaped role expectations. From the meso level upwards (see Fig. 2, p. 39),
formal rules (like legal norms) become more important. The analysis of actions and possibil-
ities to act has to be guided by the steering modes that are valid on each level, respecting
the interrelationships. Hence, the analysis of conditions for personal peacefulness within

one's closer social environment can contribute but little to the understanding of peace and war in the transnational context. The resolutions on sustainability often refer to the different levels, for example in the final report of Johannisburg 2002: "Accordingly, we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels."[33]

Macro level	World	Use of chances and active participation in globalisation in the context of the needs of sustainability. Active participation in the United Nations, WTO and other multilateral organisations as well as in bilateral development cooperation, peacekeeping etc.
	Transnational units	Utilisation of regional alliances (e.g. EU, African Union) and networks for cross-border agreements and conflict mediation
Meso level	Nation, state	Democratic consensus building and policy making for the alignment of all dimensions of development within society's process of searching for sustainable development
	Region	Dialogue between government, businesses and civil society, in order to overcome the self-reference of institutions and sectors and to build up synergy towards sustainability
Micro level "Life world"	Community	Ensuring local viabilities, utilisation of clear contexts between local stakeholders for the coordination of all dimensions of development
	Family, small group	Family and family-like communities as stabilisers in social change: gender roles, family division of labour, solidarity-management of phases and risks of life.
	Individual	Individual balance between one's own needs and diverging economic, social, political and ecological needs (e.g. as consumer)

Fig. 2: The levels of the dimensions of development are levels of action in the process of sustainable development.

1.3.4   The linkage of heterogeneous structures in the course of dynamic globalisation

Processes of globalisation are being reinforced by technical innovation and by economic and political interests. At the latest since the European colonisation of the world, processes of globalisation can be noticed. They have been speeded up considerably during the past decades and often democratic governance and legislation cannot keep pace with these processes. We can notice opposing trends in globalisation: On the one hand, harmonising effects are growing by global processes. Mainly the activities of transnational business corporations

[33] United Nations, Report of the World Summit on Sustainable Development, chapter I, Annex, Johannesburg Declaration on Sustainable Development, §5, Johannesburg, 2002

and companies in the fields of finance, trade, communication, marketing and tourism are responsible for these effects. Structures or global networks emerge with standardised work modes, professional standards, similar organisational structures and norms. Social networks set standards for communication, profile, aesthetics etc. and offer innovative transnational business models. As with share economy, hoped for sustainability goals like sharing and resource conservation might fall by the wayside.

On the other hand, in the local, regional or national context, traditional structures remain and develop. Thus, lifeworlds that hitherto did not have any connection are being connected, often creating conflicts, often without the needed time for adjustment. This happens between countries as well as within. We have winners and losers of globalisation: individuals, sections of the population and many developing countries. But most of all the dynamics of global change lead to the transgression of planetary limits to growth and to growing risks, and they require the protection of global public goods (see BOX 5 Global Governance and the paradox of sovereignty) and the compliance with universally valid "guide rails" for sustainable development. Conflicting interests and a critical imbalance of power at the expense of developing countries and within countries force even the industrialised countries to realise the global and domestic diversity and make them overcome their views of the universal validity of their own living conditions and values (see BOX 4 Eurocentrism) and have them review the existing models of development.

Real time communication via electronic media plays a crucial role in globalisation processes. For most users, the global exchange of data has not only become unlimited but also unpredictable regarding its potential consequences. Within only a few decades, the high-speed development of information technology as catalyst of globalisation has totally changed modes of communication as basis for processes in the society. This does not only apply to the technical opportunities but also to the ideas about freedom and self-determination. The unlimited exchange of data has become the basis for entrepreneurial success and has led to a vast push in commercialisation in many areas of life.

The effects of mass media, in particular advertisement and the propagation of certain lifestyles, have to be taken into account with their far reaching influence, especially on children and youth. Furthermore, the uncontrolled acquisition of data, data espionage and manipulation, in forms that are out of international control, have become a global threat.

BOX 4   Eurocentrism

As educated Europeans we know that our world maps show the world from a European perspective and that terms like *Near, Middle or Far East* or *underdevelopment* have been coined in colonial times from a European point of view. Are we aware that basic terms that we hardly scrutinise like *wealth, poverty, growth* and *progress* are almost totally eurocentric?

Let alone basic values, fundamental rights and political orders, like *self-determination, liberties* and *property rights* or *democracy* – we not only believe that their origin is European, but that they are universally valid. Travellers who not only visit Western style tourism centres repeatedly experience that the world "out there" looks much different and that the people and their values are much more diverse than they have thought.

We may observe that "European thinking" – as we perceive it – will lead to social and economic "progress" in many societies of the Global South, whereas we know how dubious the foundations of such progresses may be – progresses that quite often are meant to be "catch-up development" und are hardly appreciated as indigenous success; these observations will create ambivalent feelings.

Nevertheless, *eurocentrism* is more than the sum total of prejudices and hence a usual kind of ethnocentrism, i.e. a behaviour interpreting the "other" or the "alien" against which we want to stand aloof on the background of traditions and values of our own cultural reality. *Eurocentrism* is a complex phenomenon of modern times, historically also legitimising the expansion of power and dominion, linked to the intention to convince other cultures of the validity of the own ideologies.

As an important term, *eurocentrism* had developed no earlier than in the late 1980s, in conflict with (post)colonialism, development aid and cultural relativism. This shows that we have only made small steps to realise global diversity, to reduce ethnocentric bias and to reflect our history. Even today we perceive and judge non-European societies mainly from the perspective of European values and convictions. To perceive the strange only with terms of the own not only deprives us of the chance to realise the diversity of the global society and to better understand oneself; it is also the starting point for injustice.

Whereas relativism (e.g. with regard to the universal validity of human rights) as well as idealisation of the strange and political correctness demonstrate our efforts to let go of eurocentric thinking, they still show our insecurity regarding the adjustment of our own identity to the perceived socio-cultural diversity.

Unreflected *eurocentrism* and a self-confident commitment to cogent principles form an important area of conflict in Education for Sustainable Development. Hence, to strengthen the competency to change one's perspective plays a central role within the learning area Global Development, being one of its five guiding principles.

Jörg-Robert Schreiber

Global companies make use of the global communication facilities in order to dissect produc-
tion processes and re-organise them internationally, at the respectively lowest factor costs.
Also global scientific cooperation, networking non-governmental organisations or tourism
operate in conditions that facilitate the factual and intercultural communication via direct
digital contact. Apparently, the effects of global social networks – like globalisation as
such – are overwhelmingly complex and contradictory. Thus, increasingly unlimited commu-
nication leads to more and faster agreements but – e.g. – not automatically to less racism.

If messages are disseminated via mass media almost without context, there is often a lack of
mutual understanding between different socio-cultural environments. This is more and
more the case because, in the context of global communication, the producers of TV pro-
grammes or films, journalists, news editors or bloggers often cannot evaluate the ways of
dissemination and the impact of their media.

Thus, intercultural or transcultural communication in the context of globalisation has to
face a huge challenge in order to avoid cultural and power conflicts and to give sustainable
development a chance. This applies to the media world and also to the global dialogue of
religions and to education. It is in their joint responsibility to strengthen the global commu-
nication's potential for understanding.

1.3.5   Coherence of the dimensions of development as a central challenge

The starting point for the coherence demand in ESD were the resolutions of Rio (1992) and
Johannesburg (2002). In Johannesburg, the avoidance of "unsustainable" developments by
improved coordination was strongly emphasised. This focus was confirmed at the Rio+20
Conference in 2012. The demand to improve the coherence of coordination of the develop-
ment components is connected to the following objectives:
- realisation of environment and development (in society, economy/business and
  politics) as equally ranking and interdependent objectives
- generation of synergies by coordinated measures in the different development
  dimensions
- avoidance, solution or decrease of target conflicts between the components/
  dimensions that might jeopardise the success of sustainable development

For *Sustainable Development Education*, these objectives mean a special challenge, given the
high complexity of unresolved development issues. This requires merging knowledge from
politics, economics, social sciences, natural sciences etc. Due to the dynamics of globali-
sation hardly any field of science is exempt from this change, and more or less all school
subjects are affected. The extension of the Curriculum Framework is a response to this fact.
Each of these academic and educational perspectives leads to a specific view on sustainabil-

ity. In this process they follow their own paradigms. The increasing specialisation impedes the needed interdisciplinary or cross-curricular cooperation and underscores the need for integrative approaches.

The dependence of sustainable development on improved coherence, on cooperation and synergy directs the focus to the relationship between the dimensions of development and their actors. As a rule, professional target strategies are led by self-interest and often operate intransparently. Even if objectives of sustainable development are being pursued, conflicts between important projects and functions in the respective development dimensions ensue:
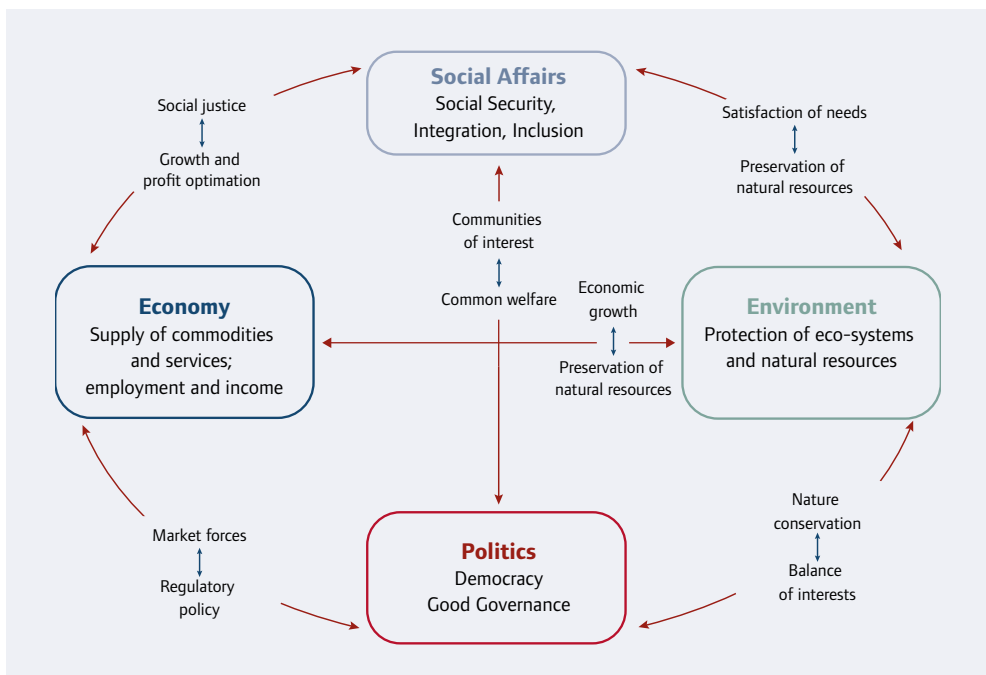
Fig. 3: Target conflicts between the dimensions of the sustainable development paradigm

Occasionally the view is held that sustainability could be achieved by pursuing the respective objectives of the of development dimensions in parallel. Such a **one-dimensional model** would mean that it is possible to define and achieve objectives of sustainability by isolating single development components (like economic sustainability, ecological sustainability etc.). Such objectives and development projects would exist in parallel or – in case of claims for dominance – conflict with each other.

Unilateral ecological "guide rail" models are an example. They don't rely on the equivalence of development dimensions and assume that ecological "guide rails" form a corridor of development by defining the limits to unsustainable development. In the same way, political, social and economic "guide rails" can (and must) be defined, e.g. for the limits to extreme poverty[34], as has already been done with respect to human rights and other agreements under international law. The United Nations' efforts towards an effective global development agenda "Post-2015" emphasise the inclusive character of the sustainability goals. They are not to be seen in isolation but to be understood as integrative holistic goals[35].

An **integrative model** is closer to the concept of coherence and also gives priority to the political implementability of a sustainability strategy. The Enquête-Commission of the German Parliament *Protection of Mankind and the Environment* has already pointed out in 1998: "An environmentally dominated policy of sustainability will always lose out in the societal trade-off process whenever other problem complexes prove to be more immediate, more noticeable or more virulent, and thus more urgent and more attractive for political action. Even if it is able to win acceptance, it will be without effect, since only a policy of integration (…) of the dimensions will in the end be able to overcome the conceptual weakness of an environmental discussion isolated from economic and Social Affairs. (…) In Germany, it is gradually being realised that the model of sustainable future-compatible development also addresses important lines of development beyond the environmental dimension. Because of the complex connections between (…) the dimensions or views of environmental, economic and social policy, they must be addressed in an integrated (…) manner.(…) The discussion tends towards interpreting sustainability policy as societal policy, which in principle and in the long term treats all the above-mentioned dimensions on the different levels of action as equal and equivalent."[36]

Education for Sustainable Development is offered by this principle access to issues of individual and institutional conflict resolution and balancing of interests. The construct of development dimansions that is embedded in the sustainable development principle alleviates multi-perspectivity as well as the analysis and evaluation of development processes. The model gives basic orientation to pupils and students for the development of true-to-life skills and competencies. On each level of action, target conflicts can only be resolved or alleviated if chances for a balance of interests and compromise are found and used in a complex reality.

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[34] The attempt to prioritise in this way is also demonstrated by the Final Declaration of the Earth Summit Rio+20, 2012: The future we want; outcomes of the conference. Here, the eradication of extreme poverty is regarded as precondition for development in all other areas

[35] See "Synthesis Report of the Secretary-General On the Post-2015 Agenda" dated 4.12.2014: http://www.un.org/ga/search/view_doc.asp?symbol=A/69/700&Lang=E, 27.10.2016

[36] Enquête Commission of the 13th German Bundestag (1998) on the Protection of Humanity and the Environment: The Concept of Sustainability: From Vision to Reality (final report), 1998, p.31 ff. http://dipbt.bundestag.de/doc/btd/13/112/1311200.pdf, 27.10.2016

Coherence at the various structural levels

With the increasing globalisation global and local phenomena are getting closer connected; therefore, it is meaningful to look at the coherence issue on the different structural levels (see Fig. 2, p. 39).

Individual level and Lebenswelt (lifeworld)

For most people, on the micro level the immediate Lebenswelt (lifeworld) includes – apart from the individual person – also the family or small group as well as their immediate environment of personal close and remote contacts, the neighbourhood, school or workplace, leisure contacts and the community. The design of this Lebenswelt (lifeworld) is mostly based on personal relationships. The four dimensions of development are brought together there through concrete personal behaviour. Every person faces economic, social, political and environmental challenges, which he or she must harmonise for the respective situation. This applies to lifestyle, diet, healthcare, housekeeping, education and societal, cultural and political activity and participation. Even at this level, conflicting goals must be consciously experienced and settled. Complex correlations have to be reduced to feasible sustainable behavioural alternatives.

On this Lebenswelt (lifeworld) level, the influences of globalisation become more and more effective. This can be experienced in interpersonal contacts (e.g. at school, as tourist, in intercultural encounters, in social networks), and also as effects of institutional, economic or governmental decisions regarding conflicts on globalisation, e.g. the issue of job competition, regarding mobility and alternative energies or the supply of consumer articles and the incertitude about how and under which conditions they have been produced.

The complexity of issues to be addressed at the Lebenswelt (lifeworld) level that arise in pluralistic society, in the context of competitive claims and possibilities, is increased considerably by global influences. Often, conflicting goals between local and global interests must be resolved (e.g., when buying fresh fruit in winter, our environmental considerations may be in conflict with the income opportunities of the poorer southern countries delivering these products). On the micro level, at school, in clubs or the city quarter, the challenges of sustainable decisions are often very concrete but not less difficult (in favour or against an asylum seekers' home close by? in favour or against higher wind turbines in my sight?).

The meso and macro levels

The meso and macro levels encompass the institutional structures including the national level. Here, it is primarily about institutional behaviour according to laws and regulations, but also civil disobedience/resistance against projects (that are personally rejected as unsustainable) or forms of direct democracy. Like governmental institutions, non-governmental organisations (companies, political parties, associations) with there interests can often be grouped to one of the four dimensions. They will work in the context of the specific targeting of the respective dimensions and will be shaped by their steering modes and by institutional self interests. These general conditions, particularly the self-reference of some institutions impede the individual's orientation at higher level sustainability principles. Instruments like technical/environmental impact assessments that are meant to assess the effects of projects in the development dimensions, are desirable for all major development projects and for a coherent design of policy.

On this level, diversity is more and more realised as an element forming society and thus becoming a guiding principle for legislation (e.g. protection against discrimination). But ethnic, religious and socio-cultural diversity are also motives for violent conflicts and racist assaults. Hence, coherent sustainable development on the meso and macro levels is also an eminently political challenge requiring a significant amount of clarification and education. Diversity has to be able to articulate itself via a maximum of self determination while at the same time securing the state's ability to act, which guarantees a democratically legitimate balance of interests. In order to strengthen the ability to act, the individual person has to make use of the democratic rights and has to connect with organisations and networks which effectively work for sustainable institutional decisions.

Global level

The global level is where the demand for coherence of the target dimensions of the sustainable development paradigm faces its greatest challenges, in view of the prevailing cultural, social, economic, political and environmental diversity, as well as the associated divergence of views and interests.

It is important for ESD and for Global Development Education that the global level is not just regarded as a remote level of activity which is limited to decisions made at the UN headquarters in New York, in the skyscrapers of the financial centres or at the big stock exchanges, at the G20 summits, at the headquarters of the WTO in Geneva, the World Bank in Washington or by the government centres of the global powers. Today, the global level can be found everywhere – in our supermarkets as well as in Lampedusa, in the high-tech factories and the football stadiums of the Champions League. It is mainly steered by digital communication processes which the classical media have increasing difficulties to follow and verify, even with respect to events that they regard as important. Everyday life depends on whether globalisation and globally effective processes can be realised, analysed and evaluated with the help of the sustainable development principle. Globally effective decision

processes cannot be understood via institutional knowledge. Nevertheless, in a confusing transition period from a nation state era to a highly interconnected global society (BOX 1 Global change – a challenge for our capacity to learn) it is important and very helpful to grapple with institutions and actors of Global Governance under the perspective of future sustainability.

The term **Global Governance** stands for forms and the dynamic process of the global steering system. According to Dirk Messner, it is the development of a system of institutions and rules and of new mechanisms of international cooperation, which allow for a constant handling of global challenges and cross-border phenomena.[37] The stakeholders involved like nationstates, regional groupings, central banks, UN organisations, NGO networks, science institutions, business associations and transnational concerns are extremely different as are the modes of their cooperation:
From world conferences and summits to fora and consultations, with results reaching from agreements that are binding under international law to voluntary declarations of intent. The whole of the supranational, national and non-governmental coordination efforts on the global level are oriented towards existing international law and largely towards the sustainable development principle but often also towards self-interests. The problem with this system, which is not only very complex but also open and mostly not institutionalised, is: The steering logic does not necessarily look for root causes or for responsibilities but primarily for problem solving chances that can be communicated as compromise. Furthermore, most processes are not holistically coordinated, mostly not even between the big UN programmes.

The removal of border barriers for trade, capital and workforce, the increase of risks that cannot be avoided by states alone or by interstate measures as well as the increasing demand for public goods like drinking water with the connected security needs have caused the United Nations Development Programme (UNEP) to put the concept of **global public goods** into the centre of Global Governance. Due to Inge Kaul, director of UNDP for development studies, it is about public goods that don't respect national borders: Their benefit and their costs can effect several groups, countries, peoples and generations (see BOX 5 Global Governance and the paradox of sovereignty). It is about stable financial markets, peace or the control of infectious diseases. The expanding trade with new global services and products, as e.g. emission certificates or insurance against terrorism, has fired the discussion. Civil society's direct and indirect chances to participate in the shaping of Global Governance have tremendously grown in the past decades; more than ever they depend on the development of competencies as they can be acquired in Global Development Education.

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[37] Messner, Dirk (2000): Globalisierung, Global Governance und Perspektiven der Entwicklungszusammenarbeit. In: Franz Nuscheler (Ed.): Entwicklung und Frieden im 21. Jahrhundert, p. 267–294

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BOX 5 Global governance and the paradox of sovereignty

Research for the **Governance Report 2013**[1] show that there are many isolated **steps to protect global public goods**, e.g. in the fight against global warming, the protection against international terrorism or the prevention of financial crises and pandemics – i.e. mainly in cases of public goods which are in crisis today. It's particularly striking that especially governmental stakeholders hesitate to adjust to new political needs, although more and more non-state stakeholder groups, i.e. civil society and private business, urge them to.

The way politicians, scientists, journalists and the public in general nowadays talk about international cooperation shows that it is often being perceived as being contrary to the core principle of today's world order: Non-interference of external powers with internal matters of the state, or, in other words, with national political sovereignty.

In many cases states already assume the role of a mediator between national and global demands. But they are careful because many regard this as a loss or transfer of national political sovereignty to international organisations or to global stakeholders. After all, to a high degree international cooperation still is a "power play". The reluctance to get involved in multilateral cooperation leads to a situation which we can call the **paradox of sovereignty**: The more persistent governments are in holding on to the conventional view of absolute sovereignty in the field of political dependence, the sooner they fail to meet the global challenges, and with each failure they more and more undermine their own chances to act politically.

It is becoming more and more apparent that non-adjustment of the states to today's political realities incurs high human, social, environmental and economic costs. The reason is that more and more political problems remain unsolved and an increasing amount of resources has to be used for the prevention and management of crises. These crises increasingly lead to rivalries between the nation states for resources, market shares and other positions of geo-political significance, including the remilitarisation of international relations. Nevertheless, there is increasing evidence for a growing awareness that the emerging trend towards multipolarity and economic openness needs new political approaches.

Therefore, it is most important to strengthen the basis of the present world order and to take the risk to expand the principle of sovereignty – towards a responsible exertion of sovereignty, i.e. towards a national governance that respects commonly agreed global norms and objectives and that is ready to cooperate actively and fairly in their realisation, nationally and internationally.

Inge Kaul, Hertie School of Governance

[1] Inge Kaul (2013): Meeting Global Challenges: Assessing Governance Readiness. In: Hertie School of Governance. 2013. Governance Report 2013. Oxford University Press: Oxford, U.K., pp. 33–58

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1.3.6 Balance between global and local

The significance of local, regional and national levels is underscored in the international sustainability resolutions. Personal chances for participation as well as accessible institutions and persons at all levels constitute an important potential for confidence, in view of largely anonymous global structures and relationships. In addition to opening up this potential, the interactions require new procedures for coordination among the areas for which various actors, such as corporations, political institutions, non-governmental organisations etc., are responsible. In this context the World Bank refers to "social capital", which consists of social networks and their institutional and cultural bases, being decisive for coherent development processes in the sustainability dimensions.
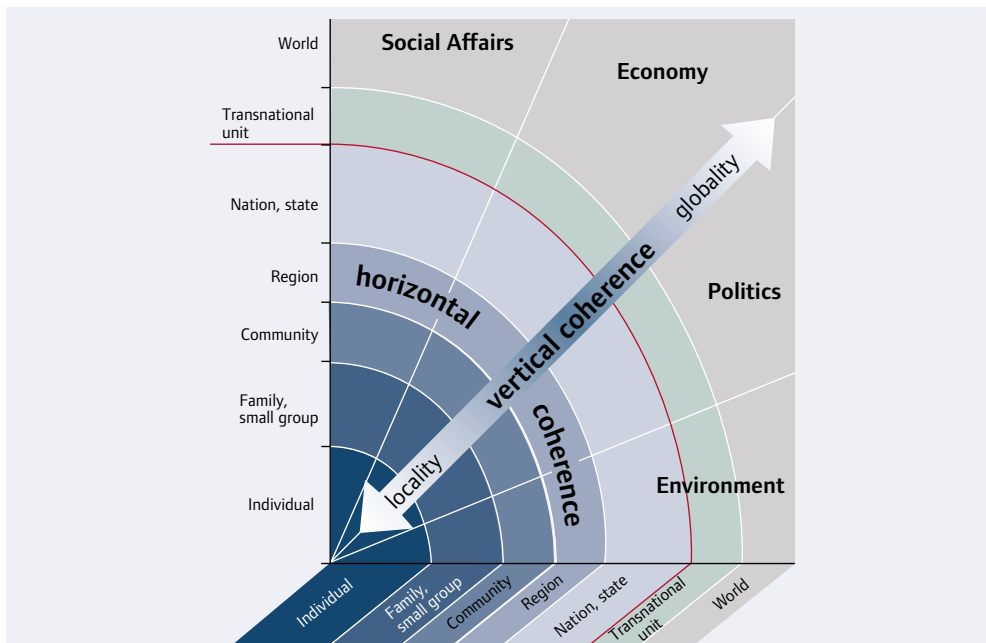
Fig. 4: Horizontal and Vertical Coherence

The interaction of locality and globality has to be shaped in all fields of activity. It is about the interactions of mobility behaviour with climate change, of a purchase decision and the fight against poverty or – vice versa – about the understanding and acceptance of governmental rules to secure each and everyone's sustainability. Often, the individual has the impression that his or her own contribution to overall developments is insignificant; on the other hand, it is often difficult from the macro perspective to take everyone's personal needs and chances into consideration. Hence, horizontal and vertical coherence constitute a major challenge for sustainable policy but also for the individual learning process and the resulting sustainable judgement and behaviour.

1.3.7 Development policy and global development

Until 2015, German development policy was oriented towards the Millennium Development Goals (MDGs) of the UN, which had been focused at the turn of the millennium on how the community of states would handle the central challenges at the beginning of the 21st century. The MDGs focus on the eradication of poverty as primary goal reflected the growing influence of developing and emerging economies.[38]

Together with the international community of states, Germany is committed to:
- the fight against poverty
- peace, freedom, democracy and human rights,
- a fair design of globalisation and
- the preservation of environment and natural resources.[39]

These four guiding principles of sustainable development of German development cooperation will remain valid after 2016, if the international community stays committed to implementing internationally agreed Sustainable Development Goals (SDGs) after the phasing out of the Millennium Agenda (see chapter 1.2.3 and BOX 6 Sustainable Development Goals (SCGs)).
The federal government supports the United Nations' efforts implement a global, universally valid SDG agenda with a coherent target system for 2015 to 2030. With its goals and universal principles, the development agenda "Post-2015" represents the transformation needed for global sustainability and hence the thematic fielf for ESD and Global Development Education.

Within the context of the creation of a "Charter for the Future" the German Federal Ministry of Economic Cooperation and Development (BMZ) has initiated a process in 2014 with wide public participation to show that development politics are not only relevant for the Global South but also in Germany: "The citizens, the federal government, the German Bundestag, the federal states/Länder, municipalites, business, civil society and science are all – within the competencies, responsibilities and means at their disposal – called to effectively contribute to sustainable development here in Germany and all over the world. Future sustainable politics begins here in Germany but it reaches far beyond."[40]

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[38] See chapter 1.2.3 on the critique of the MDGs
[39] See BMZ, homepage http://www.bmz.de/en/what_we_do/principles/index.html, 27.10.2016
[40] BMZ, Zukunftscharta,
http://www.bmz.de/de/mediathek/publikationen/themen/entwicklungspolitik_allgemein/zukunftscharta.pdf,
27.10.2016

BOX 6   **Sustainable Development Goals (SDGs)**

End poverty in all its forms everywhere

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Ensure healthy lives and promote wellbeing for all at all ages

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
* 4.7 by 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

Achieve gender equality and empower all women and girls

Ensure availability and sustainable management of water and sanitation for all

Ensure access to affordable, reliable, sustainable and modern energy for all

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Reduce inequality within and among countries

Make cities and human settlements inclusive, safe, resilient and sustainable

Ensure sustainable consumption and production patterns

Take urgent action to combat climate change and its impacts

Conserve and sustainably use the oceans, seas and marine resources

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Strengthen the means of implementation and revitalize the global partnership for sustainable development

UN-Open Working Group A/68/970, 2014
http://www.un.org/ga/search/view_doc.asp?symbol=A/68/970&Lang=E

*   Note: This is a sub-goal of the seven SDG 4 targets. In total, the OWG has proposed 169 concrete sub-goals (targets) within the 17 goals. In end-2014, the UN General Secretary presented them to the community of nations as a basis for the 09/2015 resolution of UN General Assembly.

Nevertheless, lacking the adequate international conditions, the poorest countries will not manage to avoid negative repercussions of globalisation on their own development. It will be difficult for them to stand up to international competition and to create own institutions which can steer their policy on the national level towards sustainability. Hence, goal eight of the MDGs – to develop a global partnership for development by an "open, rule-based, predictable, non-discriminatory trading and financial system" – will remain important.

International agreements will not suffice to enable sustainable development in developing countries. Particularly economic development and the reduction of absolute poverty demand comprehensive support measures from the countries of the North. The creation of institutions in the countries of the Global South should be supported in order to help them implement the many international agreements, e.g. regarding environmental standards. The key role in this process is with the competency of the Southern partners and with their readiness to be proactive. The large number of violent conflicts in developing countries that has prevented an orderly development process, or has wrecked previous development successes, underscores the significance of the political dimension of sustainable development.

In 2014, the federal government published the fourth implementation report of the action plan "Civil prevention of crises, conflict resolution and consolidation of peace."[41] With its reference to the precedence of the civil – in times of increasingly violent conflicts and an unprecedented level of refugees, peace and prevention of crises are given high priority as tasks of the government and civil society. Education and the formation of civilian structures are fundamentally significant (see thematic area "Peace and Conflict" in chapter 3.6). The need for a principle of peace policy, which is addressed in the current implementation report, can supplement and step up the implementation of SDG goal 16 "peaceful and inclusive societies" of the "Post-2015" Agenda (see BOX 6, Sustainable Development Goals (SDGs)).

[41] http://www.auswaertiges-amt.de/cae/servlet/contentblob/691220/publicationFile/199299/, 27.10.2016
Aktionsplan-Bericht4-de.pdf

In the past years, the "threshold countries"(emerging economies) have grown in impor-tance. Some of them, e.g. China, Mexico, Brazil, India and South Africa of the G20, have risen to the level of Global Players and play an increasingly important role in the agreements on the global development agenda. The BMZ directly addresses these countries as their global partners in development. "Only in close cooperation with them we can find answers to crucial problems like global environment and climate protection, peace and security as well as eradication of extreme poverty."[42]

In the Charter for the Future, drafted in 2014, the BMZ points out that the promotion of development cooperation needs more than the support by professional stakeholders of de-velopment institutions. In order to achieve the SDGs and to establish "Sustainability as a principle"[43] in all sectors and areas of society, we need education as a pivotal element of change. Education has to enable people to shape their own lives in a responsible way and to support them as citizens, consumers and producers in the sustainable transformation of their society. At the same time, people, in the Global North as well as in the Global South, need to see themselves as global citizens of the One World ("global citizenship"[44])

In the concept of "Development education and information", the BMZ has outlined the programme targets and methodologies as well as the institutional framework for the promo-tion of development education in Germany. This includes projects of Global Learning which are – like the BMZ policy in general – directed towards global sustainable development.[45]

Development cooperation is the responsibility of state institutions such as the BMZ or its implementing institutions, like KfW, GIZ, Engagement Global[46] and non-governmental organisations. These include political foundations, churches, and development NGOs, as well as business institutions. The German federal states/Bundesländer are participating with development programmes of their own, particularly in areas in which they have profession-al competence and staff available. Like the federal government, the prime ministers of the German federal states/Bundesländer[47] regard Global Development Education/ESD as an important foundation towards sustainable development.

[42] BMZ, Konzept der entwicklungspolitischen Zusammenarbeit mit globalen Entwicklungspartnern (2011–2015)
[43] BM Dr. Müller in the German Bundestag 29. 01. 2014
[44] Global Citizenship is a goal of Ban Ki-Moon's "Global Education First Initiative" 2012
[45] http://www.bmz.de/de/mediathek/publikationen/archiv/reihen/strategiepapiere/konzept159.pdf, 27. 10. 2016
[46] KfW, Kreditanstalt für Wiederaufbau; GIZ, Deutsche Gesellschaft für Internationale Zusammenarbeit; Engagement Global gGmbH, Service for Development Initiatives
[47] Resolution of the German states' prime ministers, dated dated 24. 10. 2008 and 12. 6. 2014
http://www.entwicklungspolitik-deutsche-laender.de/service/downloads/Beschl%C3%BCsse, 27. 10. 2016

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2   School conditions and educational challenges

Martin Geisz, Rudolf Schmitt

2.1   Lebenswelt (lifeworld) change

Students and pupils as well as teachers live in a world that is marked by constantly accelerating processes of globalisation. While we can immediately notice singular phenomena, we have only selective and limited capacity to realise the complexity and effects of globalisation. It is easy to recognise the spiralling possibilities to communicate, the growing supplies of consumer goods and the opportunities to travel the world, but also environmental changes, tensions and conflicts about which the media tell us. Not least the changes at our schools: many of them are more and more cosmopolitan and intercultural and meet the challenges and chances of social diversity and pedagogical inclusion. The expansion of our fields of action and constantly accelerating developments require changes in perception, in learning concepts, in the relationship between teachers and students and their participation in society.

The view on the lifeworld and living conditions of children and youth, for whom this concept is intended, is part of the continuous planning process of modern education at school. The *contexts* – i.e. the applications that are meaningful for the learners – should guide the selection of contents which are relevant for students and the society, and the design of processes of organising and learning at school. It is challenging to demand that the persons in charge are guided in their educational efforts by the perception of global change, of changes in society and adequate pedagogic options, apart from taking into consideration the concrete situation at school.

The respective situation at school is obviously the starting point for the curricular design and for the design and lesson-related as well as extracurricular activities in ESD/Global Development Education: Which social realities have to be taken into account? Which preconditions for learning and which expectations? Which potentials and problems? Here we need to strengthen the awareness of and effort for the principle of inclusion. Each situation requires its analysis and an answer to the question, which activities and focus points in the school profile we can start from (subject related profiles, partnerships, cooperations, mission statements).

It might also be helpful to step out of the well-known environment, to observe activities elsewhere and to study representative analyses on the preconditions for learning, and attitudes of children and youth.

BOX 7 Inclusion

The *UN Convention on the Rights of Persons with Disabilities* (2008) substantiates the universal human rights of people with disabilities, with the aim to support their equal opportunities in society. Germany was among the first states that signed this convention. When the agreement was ratified on 26.3.2009, the Convention on Rights of Persons with Disabilities became legally effective in Germany and binding under international law. Article 24 emphasises the right to inclusive education and hence the demand of an inclusive construction of educational systems.

Inclusive education means that all people – regardless of their gender, religion, cultural and social origin, cognitive, physical and psychological preconditions – are entitled to equal access to higher education, and that existing entry barriers have to be removed. This broad understanding of inclusive education is fixed to the Curriculum Framework as a cross-cutting theme.

As a pedagogical approach with the essential principle of appreciation and acknowledgement of diversity, the scientific foundation and acceptance of inclusive education has increased since the 1990s. At school it is about "the appropriate, non-hierarchical and democratic response to the existing heterogeneity of students" (see Boban; Hinz 2003: Index für Inklusion).

The implementation of inclusive education is one of the big challenges to our education system and its stakeholders. Institutions of formal and non-formal education and their activities should be designed in a way that the learning environment adjusts to the students and respects the individual personalities with their different preconditions. Such an orientation towards the students requires a high personal commitment but also differentiated material and activating methods of education which support the individual and at the same time cooperation.

The attempt is – by context and lifeworld related learning and teaching – to include persons with individual needs, especially people with disabilities and groups with poor access to education into the learning processes. In this way all people are to be supported in their role as stakeholders of sustainable development, and their participation in processes of society should be enabled and improved.

Inclusive education does not just start at school nor does it end with the leaving certificate. Inclusion is a task of the whole society; it has to gain in importance in daily life and needs to be embedded in our educational institutions.

With its inclusive approach and the appreciation of multifariousness ESD/Global Development Education, based on a holistic concept of lifelong learning, strengthens the handling of diversity and thus a fair society which is as free from discrimination as possible.

Katarina Roncevic, Behinderung und Entwicklungszusammenarbeit e. V. (bezev)

Youth and the future

The subjective sense of well-being of young people looking at their own future perspectives is an important indicator for their awareness and weighting of global development issues. Taking into account the views of their own future, a *UNICEF study of 2010*[48] hasn't found positive perspectives for the future of young people in Germany: "It is alarming (…) that a very high percentage of German children and adolescents have a sceptical view on their own career opportunities. Almost 25 percent expect that after school and vocational education they will work in a job with low qualification profile (…). There is no other industrialised country where adolescents are so drearily sceptical, although the rate of unemployment among young adults in Germany is lower than in most other OECD countries."[49]

The study offers a positive reference point for tackling those fears about the future: Almost 36 percent of the kids in Germany do like school – as they say themselves – "very much": Among the countries that have been studied, this percentage is higher only in Norway (41,7 %), the Netherlands, Austria and Great Britain (37 %). The result of the respective *UNICEF study of 2011–12*[50] is that 90 percent of the children evaluate their own condition and wellbeing as good, and that 70 percent of the children in all federal states/Bundesländer get along fine at school. The latest *UNICEF report (2013) on the situation of children in industrialised countries*[51] shows, though, how questionable the value of such studies might be. Many news media have summarised (apparently without detailed knowledge of the study) the result that German adolescents are ranking on place 22 only regarding happiness with their life with the headline "German adolescence – rich but unhappy", together with the supply of well-known reasons. But as in previous years, the rates of happiness were relatively high (only 16 % are unhappy) and not much different from the best-ranking countries.

In Germany the substantial share of 8 % of the children have experienced poverty; the number of refugee children is growing; children and adolescents who are at the edge of our education system are in a tenuous legal position. All these phenomena need to be examined with a differentiating view. A *UNICEF study (2014) on refugee children in Germany* remarks: "One third of all refugees coming to Germany are children and adolescents. It is estimated that more than 65,000 refugee kids with an unclear residence permit status are living in Germany.[*] These children are hardly noticed at all by politics, administration, media and a

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[48] Bertram, H.; Kohl, S. (2010): Zur Lage der Kinder in Deutschland 2010: Kinder stärken für eine ungewisse Zukunft. Deutsches Komitee für UNICEF, Köln

[49] Bertram, H.; Kohl, S.: see UNICEF-Studie 2010, p. 4

[50] Bertram, H.; Kohl, S.; Rösler, W. (2011): Zur Lage der Kinder in Deutschland 2011/2012: Starke Eltern – starke Kinder. Kindliches Wohlbefinden und gesellschaftliche Teilhabe. Deutsches Komitee für UNICEF. Köln

[51] See Spiewak, M.: Von wegen reich und unglücklich, ZEIT-Online 12.04.2013 (http://www.zeit.de/gesellschaft/zeitgeschehen/2013-04/unicef-bericht-unglueckliche-jugendliche-analyse), 27.10.2016

[*] ed. note: these figures have enormously grown since 2015

major part of the general public. Despite their particular living situation, there are no special support programmes for these kids and adolescents. Refugee children are primarily treated as an "annex" to their parents, not as independent personalities with own rights and very special child-specific needs."[52]

Youth and globalisation

The *Shell Study 2010*, already finds that most adolescents know the term "globalisation". It has become part of their vocabulary, and it is increasingly associated with personal advantages. In their day-to-day life, adolescents have the experience of globalisation. "Here we have to assume that, apart from the traditional experience with globalisation, be it on journeys or while following global media events (Olympic Games and world championships, catastrophes and conflicts etc.) (…) the internet is their significant global horizon of communication."[53] Globalisation processes are mostly seen positively. "Four out of five adolescents are still being formed and influenced by the view that globalisation means freedom, to travel, to study or work all over the world and to enjoy cultural diversity."[54]

But for adolescents globalisation is also associated with ecological destruction (63 %), unemployment (60 %), more crimes (55 %) as well as poverty and underdevelopment (53 %) (see Fig. 5, p. 61). Even though many adolescents do have a critical view on their own future perspectives they have a rather positive attitude towards globalisation, which is regarded as ambivalent by the authors of the study.

The Shell Study 2015 states a further rise in optimism among youth (except the socially weakest group of them) - despite the challenging environment all over the world.
The study notices a growing interest in political issues among youth of the age group 12 to 25: They are willing and open to actively notice global developments. This coincides with a growing respect for human diversity and with a growing awareness of the environment and of health issues, but also with increasing concerns with regards to international politics.
"The interest in politics has not been encouraged so much by any anticipated or experienced (social) crises, but rather by a positive view of the future in conjunction with one's own opportunities to act and shape one's life." (Summary of the Shell Youth Study 2015, p. 12, http://s01.static-shell.com/content/dam/shell-new/local/country/deu/downloads/pdf/shell-jugendstudie-2015-zusammenfassung-en.pdf)

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[52] Berthold, T., Deutsches Komitee für UNICEF e. V. (2014): In erster Linie Kinder – Flüchtlingskinder in Deutschland
http://www.unicef.de/blob/56282/fa13c2eefcd41dfca5d89d44c72e72e3/fluechtlingskinder-in-deutschland-unicef-studie-2014-data.pdf , 27. 10. 2016
[53] Deutsche Shell Jugendstudie 2010, p. 171;
http://s05.static-shell.com/content/dam/shell-new/local/country/deu/downloads/pdf/youth-study-2010flyer.pdf , 27. 10. 2016
[54] ibid.

"When I hear the word *globalisation*, I think of (…)"

Young people aged 12 to 25 who have heard about globalisation before (in %)

	2006	2010
Worldwide freedom of movement (traveling, working (…))	84	82
Cultural diversity	80	79
Destruction of the environment	63	56
Unemployment	60	66
Democracy	57	50
Higher crime rate	55	59
Peace	55	57
Poverty and underdevelopment	53	51
Economic wealth	53	37
Loss of one`s own home-culture	39	33

Source: Shell Jugendstudie 2010 – TNS Infratest Sozialforschung

Fig. 5: Globalisation from the perspective of young people

Types of students and lifeworlds

In his empirical research study *Globalisation from a youth perspective*, Uphues (2007) has introduced a typology of students of the Secondary Levels that can be helpful for planning and the design of lessons in Global Development Education. In the first study, 1061 students in Northrhine-Westphalia from class 7, 9 and 12 were interviewed about globalisation, with the help of a 30 item questionnaire. They got the highest scores in cognitive fields, followed by the affective field which is more related to the awareness of problems and responsibility of adolescents. Much lower are the scores in the conative field which monitors the willingness to act.

In 2010, the author showed – based on the findings of this study – that about 40 % of the test persons belong to the "type of the globally aware", who scores high in all three fields, most of all in the conative field. By trend, this type is female, studying at the higher levels of secondary schools (Gymnasium). Almost one third of the test persons can be defined as "globally indifferent type", with – at the most – medium scores in all three fields. This type is mostly to be found in the lower level classes of secondary school (Hauptschule). According to Uphues, the so called "globally sceptical type" – all other test persons – is relevant for school lessons. This type is characterised by high cognitive dissonances, with a wide range of knowledge but at the same time with little awareness of problems and responsibility and even lower readiness to consistent action. By trend, this type is male and often in a pubertarian development stage.[55] The research also gives insight into the factors that have an impact on the adolescents' view of globalisation: "The strongest positive influence on their overall attitude comes from their interest in social policy manifesting in their consumption of news, their eagerness to discuss, and their higher level of education (school form and grade). The personal contact with foreigners, be it in the circle of friends, in a multicultural neighbourhood or by contacts abroad, are also very important."[56]

Handling complexity in the global society

In a qualitative study Asbrand (2009) has examined how adolescents handle complexity in the global society and which ideas they develop about North-South relationships. The results can explain the notorious discrepancy between knowledge and action, because the methodology of the documentary interpretation (Bohnsack 2007) provides access to the theoretical and the implicit action-oriented knowledge of the interviewees. One essential result says that the ability to act depends on how adolescents handle uncertainty or which strategies they construct in order to reduce complexity. Adolescents who have studied global topics in the school lessons, share the values of justice and sustainability but more on a purely theoretical level. Their school knowledge will hardly be relevant for acting practically; when realising global problems they rather legitimise their own inaction with strategies of excuse (e.g. lack of money to buy fair-trade products) or by risk assessments (If I cannot be sure that my actions will generate the intended results, I rather choose the safe option of

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[55] Uphues, R. (2007), p. 245 ff.
[56] ibid., p. 246

inaction.). Contrary to these findings, adolescents who engage outside school, seem more capable to act. Through their membership in organisations (e.g. in a youth association) they gain in certainty, but at the price of loosing sight of the diversity of perspectives when taking their own world view for true. Towards the end of Secondary Level I, the interviewed secondary school students nevertheless reflect on the limits of knowledge and its perspectivity. According to Asbrand, school projects like a students' company connect the advantages of out-of-school peer learning (readiness to act in view of the complexity of the global society) with learning at school (acquisition of subject-related knowledge, identification of perspectivity). Furthermore, the practical work in a students' company gives students from courses of education other than higher level secondary school (Gymnasium) access to global issues which are difficult to communicate in school lessons due to the missing connection with the young students' every day experience.

Patchwork of values and life orientation towards what can presently be done
The Heidelberg Sinus-Institute study *Wie ticken Jugendliche? (How do young people think?)* of 2012 identifies seven lifeworlds of young people (conservative/middle-class, adaptive/ pragmatic, socio-ecological, experimenting hedonists, materialistic hedonists, expeditive and precarious). The study asks for the young people's lives and their daily routine. "Only those who know what moves young people can move them" the principals – like the *Deutsche Kinder- und Jugendstiftung* – point out.[57] The interviewees aged 14 to 17 describe their values and their attitudes towards themes like school, job aspirations, belief, commitments and the media. In part, their lifeworlds are significantly different from each other. Despite unclear future perspectives, most of them are very optimistic that they can master their future. One exception are adolescents from precarious environments who often cannot see any chance that they will find a vocational education or a job, and who furthermore feel they are excluded and stigmatised. As an overall result the study considers that the young people have a patchwork of values: Apart from an individualistic ethos of performance and an ego-centred wish of self-fulfilment, traditional values like security, sense of duty, family and friendship play a major role.[58] It is essential for reaching the objectives of Education for Sustainable Development to realise that most young people focus on the present time and on what is realistic and hardly on the transformation of society or global sustainability.

When learning processes are extended towards a global dimension, there is usually no search for types of students and affiliation to certain milieus in school practice. The results of youth studies nevertheless support the insight that the students' lifeworlds are generally less uniform than expected. They must be perceived in their heterogeneity in order to acknowledge the individual preconditions and aspirations, and can also become the starting point for perspective changes and challenging learning projects through communicative teaching and learning methods.

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[57] http://www.sinus-akademie.de/fileadmin/user_files/news/Pressemeldung_SINUS_Jugendstudie.pdf , 27. 10. 2016
[58] See http://wiki.dpjw.org/sowa/sites/default/files/Sinusstudie_Ergebnisse.pdf , 27. 10. 2016

In Kimmer's study (2014)[59] we can learn from the evaluation of volunteers' surveys on their "dedication to development politics" that those who are committed in this field of action are better educated than the average and show progressive and "idealistic" values with a strong focus on political participation. This study ascribes "idealistic" values to people who are motivated value-rationally and for whom it is important to "help the socially disadvantaged", to "develop their own creativity and fantasy", to be "tolerant with respect to different opinions" and to commit onself to protecting the "natural resources" of the modern society. The study also confirms that lived values are embedded in social contexts of action. The fact that school success in the field of Education for Sustainable Development is often seen where it is supplemented by external commitment and the connected personal experiences correlates with the general notion that lasting biographies of commitment mostly start at a young age.

[59] Kimmer, H., (2014): Freiwilligensurvey 2009: Bereichsauswertung "Entwicklungspolitisches Engagement"

2.2   Awareness of global problems and value attitudes

In its guiding principles and core competencies Education for Sustainable Development is geared to the requirements that everyone personally but also institutions of the society will have to face due to changes in the accelerating course of globalisation. What is new is the growing perception of the global dimensions in all developments and the question about their future sustainability. The awareness of global problems is being connected to the paradigm of sustainable development. As not only school but all parts of the society have to face this challenge, the question arises, which starting points formal education could take up.

Youth and sustainability

In 2009 already, the Bertelsmann study *Jugend und Nachhaltigkeit (Youth and sustainability)* has found that six out of ten young people do care about the topic of sustainability. For seven or more out of ten adolescents, poverty, malnutrition and lack of drinking water as well as climate change and ecological destructions are the biggest challenges which the world has to face. The study's authors are even more precise: "Is the world which we will leave for the future generations sustainable? From the point of view of the younger generation there are severe doubts about that. More than three fourth of all young people worry about the state of the world in 20 years, about four out of ten young people in Germany and Austria are even rather or very much worried. At the most, two out of ten of the young interviewees have a rather carefree view into the future."[60]

The *Greenpeace sustainability barometer – What moves youth?*, conducted by the Institute for environmental communication of Leuphana University Lüneburg 2011, concludes that the sustainability perspective has arrived among youth (aged 15 to 24). Regarding education the study says: "Sustainable development is focussed on environmental aspects, which are essential for mankind and the ecosystems. They are embedded in economic, social and cultural frameworks. This perspective has largely reached the minds of the young generation (…). If sustainability is taught at school, the lessons are challenging and perceived as useful for the students' future life, and they are welcome. These curricular aspects are particularly important, if changes of job profiles on the labour markets are taken into account. The awareness of sustainability is increasingly deemed a key qualification in many fields of economy."[61] Those in charge of the investigation feel that their view is confirmed by the follow-up study of 2014, which has even noticed a trend towards pro-active commitments in the past three years. In 2014, 59 % of the interviewees said that for them it makes sense

[60]   Bertelsmann-Stiftung (Ed.) 2009: Ergebnisse einer repräsentativen Umfrage in Deutschland und Österreich "Jugend und Nachhaltigkeit" Gütersloh/Wien, p. 6

[61]   Grunenberg, H.; Küster, K.; Rode, H. (2012): Greenpeace Nachhaltigkeitsbarometer – Was bewegt die Jugend? (Summary)
http://www.greenpeace.de/sites/www.greenpeace.de/files/Zusammenfassung_Nachhaltigkeitsbarometer_0.pdf, 27. 10. 2016

to be engaged in the struggle against climate change. This is 23 % more than in 2011, although the vast majority does not feel personally threatened, believing that mainly the poorer countries will have to suffer from the consequences of climate change. Throughout all groups and strata of society, 92 % of the interviewees support the energy transition. The same level of consent can be found in all types of schools. For young people, participation means that they can actively contribute to the change, e.g. by reducing their own level of energy consumption. The study of 2014 shows that at school ESD shows "very clear effects". Here, schools primarily have the task to explore the complexities and should deal with complex cross-curricular issues as early as possible. The current study even comes to the conclusion: "The more Education for Sustainable Development is offered, the greater the common commitment."[62]

Youth and consumption[63]

Children and adolescents between 6 and 19 years in Germany today have more than 20 Billion € per year at their disposal.[64] They are an important target group for advertising and marketing strategies. Curricular attempts to strengthen sustainable consumption patterns have to understand that kids and adolescents are autonomously deciding consumers, who consumption as a chance to form their identity. Shopping between fun and frustration has become an integral part of young lifeworlds. Young people spend money for clothes, trinkets, jewellery and cosmetics, for leisure activities, for drugs and communication. The social acceptance in their peer group has growing influence on consumption decisions. More than other age groups they define themselves through their style of consumption and have a strong brand loyalty. In this context, cutting their consumption is no option for young people. With their clothes and gadgets, they mark ou differences among each another or demonstrate with their outfit which group they belong to. It is a side effect of the commercialised daily life of youth that consumption shows what is right and what is inappropriate. Often consumption is decisive whether a young person will be included or excluded. The German Youth Institute's study *Youth and consumption*, whose origin is determined by support for sustainable development, states with the perspective of education: "These findings don't mean, though, that young people's consumption styles are unchangeable. On the contrary: Compared to adults, adolescents and young adults have not yet developed stable lifestyles. This points towards a potential for forming patterns of sustainable consumption!"[65]

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[62] Preview to the Greenpeace Nachhaltigkeitsbarometer (Sustainability Barometer) 2014, a representative study on the awareness for sustainability in Germany by Leuphana-University Lüneburg
http://gpurl.de/Nachhaltigkeitsbarometer-2014, 27.10.2016

[63] See the study Jugend und Konsum – Eindrücke aus dem aktuellen Stand der Jugendforschung und die Ergebnisse aus den BINK-Gruppendiskussionen
http://www.konsumkultur.de/fileadmin/user_upload/Handout_Jugend_und__Konsum.pdf, 27.10.2016

[64] https://www.schufamachtschule.de/de/themenundprojekte/kinderundkonsum/kinderundkonsum.jsp, 27.10.2016

[65] See footnote 61

For lessons within Global Development Education, the question arises how education and learning methods can handle conflicts between commercialisation, self-determination and the needs of sustainable development and how competencies for sustainable behaviour can be acquired. Young people will only be able to solve or tolerate this conflict if they are learning to a great extent autonomously. But for this learning it is necessary that they perceive the conflict with all its complex dimensions and accept the challenge.

2.3   Use of digital media and media-related lifeworlds

The use of media is very important for Global Development Education because the students have only limited chances to comprehend globalisation in all its diversity in real life situations. Whenever we watch TV, surf in the internet, use social networks, blogs and twitter, exchange news by mobile phone and write an SMS, shop via smartphone, use apps for all kinds of purposes – we always participate in the global exchange of data, which has not only become unlimited for most users, but also unpredictable regarding its potential consequences. Furthermore, the internet is the basis for entrepreneurial success and – in its "self-organisation" – a subject of Global Development Education.

When he was awarded the Peace Prize of the German Book Trade in 2014, the internet critic and proponent Jaron Lanier raised the question in his acceptance speech: "At the moment, is there more digital light than darkness?"[66] It can only be understood as a call for an open learning process within this digital field of global change. Within only a few decades, the high-speed development of information technology as catalyser of globalisation has totally changed modes of communication as basis for processes in the society. This does not only apply to the technical opportunities but also to our ideas of freedom and self-determination and to the delayed public perception of an enormous cross-border tapping of data which is legally questionable and has severe consequences for the individual and societal security. In general, the simultaneous life in real and medial worlds plays an important role for the design of school lessons and gains in importance for the learning area which focuses on global development (and hence on global communication).

School and digital media

As a cross-cutting task, media education is a particular challenge for the design and implementation of school curricula. Skills in computer application and information sciences are very important to improve professional career opportunities and for the participation in society. Schools have to meet the challenge to use the fast-growing supply of technical and pedagogical media (study platforms, digital textbooks and study material) to open up opportunities for individualised and communicative lessons within a lifeworld-oriented Global Development Education. This does not only require critical openness and the appropriate staff; it will also affect the whole system school (see chapter 5).

When the work with digital media emerges as a task at school, children and adolescents have already formed their own modes to handle some of these media out of school. But the results of the International Computer and Information Literacy Study ICILS 2013[67], published in November 2014, prove the popular assumption to be wrong that children and adolescents will automatically become competent users of digital media if they grow up in a world dominated by new technologies.

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[66] http://www.friedenspreis-des-deutschen-buchhandels.de/sixcms/media.php/1290/Peace%20Prize%202014%20Speeches.pdf , 27.10.2016 (p. 8 ff.: Translation from the German version of Lanier's speech; in the English version, the quoted sentence is missing.)

[67] http://www.waxmann.com/fileadmin/media/zusatztexte/ICILS_2013_Berichtsband.pdf , 27.10.2016

Often teachers have only limited knowledge of the modes and scope of students' media use. Quite often mobile phones and smartphones as well as WLAN hotspots with free access are also deemed annoying and risky and hence their use at school is often limited. At the same time, teachers work at the improvement of their own media competency, to enable meaningful applications in lessons and to qualify students for the use of digital media. In the past decade, teachers' competency in the use of digital media and the media-technical equipment at most schools have been considerably improved. Anyhow, at German schools the rates of participation in training programmes for the use of IT in lessons, the utilisation of the existing technical infrastructure and the technical and pedagogical support are comparatively low (see ICILS 2013). Most German schools are still far from achieving the goal of a campus-wide access to WLAN and from the possibilities of Bring Your Own Device (BYOD).

In the study Jugend 3.0 (2014) on the use of the internet by youth aged 6 to 18, the Federal Association for Information Technology, Telecommunications and New Media came to the conclusion that during primary education many pupils have their first contact with basic possibilities of using the internet (mainly privately). For more than two thirds of the students at the end of secondary education Level I most of these applications still play a basic role.

Question: "How do you use the internet, at least occasionally?"
(multiple answers possible)

6–7 years   **16–18 years**

Activity	6–7	16–18
Use social networks	0	85
Watch/download films/videos	55	85
Search for information (school, training)	12	83
Listen to / download music	16	80
Chat with friends	0	76
Search for information (private interests)	5	68
Send emails to friends	2	63
Obtain information on current issues	0	60
Play online games	56	51
Phone, e.g. skype	11	48
Shop online	2	42

Data base: 830 children and youth between 6 and 18 years,
figures in per cent

Source: BITKOM: Jung und vernetzt. Kinder und Jugendliche in der digitalen Gesellschaft, Berlin 2014, p. 17,
https://www.bitkom.org/Publikationen/2014/Studien/Jung-und-vernetzt-Kinder-und-Jugendliche-in-der-
digitalen-Gesellschaft/BITKOM-Studie-Jung-und-vernetzt-2014.pdf

Fig. 6: Activities and applications in the internet

The same study shows that 85 % of the secondary level students who are 12 years or older own a smartphone, which is more or less equivalent to this age group's use of TVs and computers.

Question: "Which of the following divices to you use at least occasionally?" *
(multiple answers possible)

Data base: 962 children and youth between 6 and 18 years
cumulative data; figures in per cent
Source: BITKOM „Jung und vernetzt", see Fig. 6, p. 70
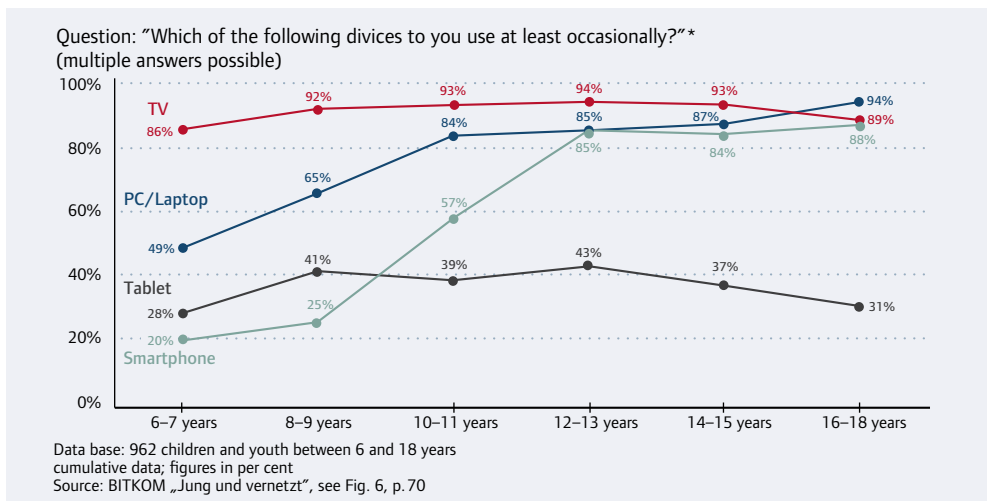
Fig. 7: Use of consumer electronics and communication media

It is telling that the main modes of private internet use by students significantly differ from its use by teachers.

Clear differences in in the priorities of private internet use by teachers and students

I use the internet in my leisure time for (…)	Teachers	Students
Writing emails	94 %	56
Reading latest news from politics and economy	65	14
Shopping online	65	27
Reading event notes	60	40
Watching short videos, e.g. on Youtube	46	84
Phoning via internet	36	34
Surfing for fun	33	61
Using social networks	31	70
Downloading music	21	53
Watching TV or movies	20	39
Chatting with friends	16	72
Reading and writing blogs	14	15
Reading news about stars and celebrities	12	24
Playing computer games	11	62

Data base: Federal Republic of Germany, teachers at general schools,students secondary levels I and II

Source: Research study by the Institut für Demoskopie Allensbach for the Deutsche Telekom Stiftung;
Deutsche Telekom Stiftung (2013): Digitale Medien im Unterricht. Möglichkeiten und Grenzen
http://www.ifd-allensbach.de/uploads/tx_studies/Digitale_Medien_2013.pdf

Fig. 8: Digital media at school – possibilities and limitations

The use of computers for teaching purposes at school
The findings of the ICIL-2013-Study, that Germany is the country where teachers make the least use of computers compared to all other 19 participating countries, surprise – despite an average technical equippment.
The study's findings show that – regarding the respective media competencies – the participating 8-grade-classes perform average compared to the EU comparison group. It stands out that 8 of the 21 participants (e.g. the Czech Republic, Denmark and Poland) perform significantly above the German median; the results of German school classes show well-known problems (low percentage of excellent performance, educational discrimination of lower and middle class groups, low level of competency of boys compared to girls).

Internet research is by far the most frequent educational purpose of the increasing use of computers at school. For acquiring information students use the internet much more often than classical print media (reference books/encyclopaedia, specialist literature, newspapers)

or competent informants (teachers, parents, experts). The quick access to information can easily disguise the fact that internet research is more demanding with regard to the selection and evaluation of sources than classical sources of information. Students need age appropriate help that is related to the respective subject background (e.g. criteria for the evaluation of sources, references to educational portals, subject portals, evaluated links, help from educational servers). For cooperative learning, additional modules like *Wikipedia – Gemeinsam Wissen gestalten*[68] and the production of Wiki articles provide a transition from the acquisition of information to the joint production of texts and collaborative projects, especially with partners in different locations and other parts of the world.

However, an increased use of computers does not automatically generate a higher level of digital competency – as the ICIL-2013-Study confirms. The following are among the crucial factors for an increased use of digital media in Global Development Education: Are the applications connectable to the students' computers? What is their significance for individual coaching in heterogeneous study groups? What are the opportunities to use online platforms in group-linking projects? How can they help the students with their personal information management?

Social Media

The ARD/ZDF online study of 2013 says that due to the increased use of mobile end devices the daily internet usage by people aged 14 to 19 is 218 minutes.[69] According to the same study, 83 % of the youth are users of private social networks. For most young people, social networks like Facebook and internet applications like Youtube or WhatsApp are modern off-school applications for the satisfaction of social needs, most of all for the media-related self-expression and cultivation of relationships. "By now, anyone who is not present in the internet and who does not prove his existence in the social media", is regarded as strange.[70] Young people aged 14 to 19 spend more than one hour per day in social networks. Many of them are not fully aware that they are market players and that their supplier counterparts are market driven service companies that use their platforms for social commerce, e.g. for individualised and mostly privacy-unfriendly marketing, which is target group specific and individualised by using the analysis of personal data. Hence, students are exposed to risks which have to be addressed in the context of media education. The commercialisation of the global net with overflowing shopping offers, advertisements, gambling activities, pornography, gossip sites, auctions and their orientation towards a youth related culture of consumption is content of Global Development Education, as well as the use of platforms for the global exchange and the production and dissemination of edited contents.

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[68] http://www.klicksafe.de/service/aktuelles/news/detail/neu-zusatzmodul-fuer-den-unterricht-wikipedia-gemeinsam-wissen-gestalten/, 27. 10. 2016

[69] http://www.ard-zdf-onlinestudie.de/index.php?id=439, 27. 10. 2016

[70] Rapp, F. (2013): Quo vadis Social Media? Zur Zukunft von sozialen Netzwerken und Facebook in Deutschland. p. 9

The significance of the new mostly unfiltered wide range multipath communication enabling and simulating the (almost) real-time user response to commercial messages is partly known from first research studies regarding its effects on informal learning processes and on the formation of identities.[71] It is becoming increasingly apparent that the Web 2.0 offers many more possibilities than the satisfaction of social needs, namely a huge potential for ways of autonomous learning, most of all learning in heterogeneous groups. Rosa (2013) gives examples[72] of how to "expand the area of communication/learning – from the classroom to the world – and how to include experts and co-students from everywhere" by using the easy ways of the web-based writing processor EtherPad or the more sophisticated weblogs. Unlike most other forms of teacher-centred education, an active participation of the whole learning group and learning processes are possible where own possible solutions are communicated and commented by others, enabling an expanded understanding by this kind of exchange. The potential pedagogical advantage of a combination of online-games with an accompanying online-platform which provides background information and didactical material on Global Learning still needs to be tested – like in the case of "Handy Crash".[73] In general, we have to ask a question which Aßmann (2013) has researched empirically: How far can the daily informal use of media by children and adolescents be effectively linked to the educational goals at school, with the focus on learning? Should this practice of "Doing Connectivity" be a distinctive goal?

Social Media offer applications for engaging in sustainable actions which are hardly perceived by classical education. Actions are no longer confined to the real life environment, and they are enormously expanded, with the need of pedagogical support at school. The global phenomenon of Social Media is a result and amplifier of globalisation processes and hence itself subject of projects in Global Development Education, making it an obvious topic of discussion with young people.

This view does not alter the experience that real encounters through contacts to schools and projects abroad or to so-called incoming volunteers in the context of reverse programmes[74] or through school partnerships are among the most intensive forms of Global Learning. Moreover, they are often an impetus for travels and stays abroad, e.g. as volunteer service like in "weltwärts" or within the programmes ASA and ENSA offered by Engagement Global. Where real encounters are not possible contacts via the internet offer important alternatives, particularly for school partnerships.

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[71] M. Günter's following conclusions make one ruminate; see "Das Spiel in der virtuellen Welt – Affektabwehr, 'milde Narkose' oder Symbolisierung" (In: F. Dammasch/M. Teising (Ed. 2013): Das modernisierte Kind: "Visual worlds instead of language worlds, constant availability and the subjective experience of one's own effectiveness provide new chances for identification beyond pathological processes and change – in a meaningful but mostly still uncomprehended way – the psychic structures of all of us.") (translation TS)

[72] Rosa, L. (2013): Partizipatives und schülerorientiertes Lernen mit Web 2.0. In: Lernende Schule 64/2013, p. 5–7. See also the Blog http://shiftingschool.wordpress.com, 27. 10. 2016

[73] See www.handycrash.org, 27. 10. 2016 and the online platform www.handycrash.org/lernen, 27. 10. 2016

[74] Reverse programmes allow for a reverse exchange (South-North) in programmes that are hitherto focused on North-South encounters

Television

There is no doubt that the traditional one-way media TV, supplemented by its growing presence on the internet, offers a comprehensive range of programmes to deal with up-to-date subjects of globalisation. Apart from science-related formats that have grown in number in the past decades (see the ZEIT chart "Lehrer der Nation"[75]) political and business TV-magazines are significant for Global Development Education. Most likely, children and adolescents get most of their information informally from TV. Even though – unlike most internet news – TV news and background analyses are edited by journalists, a high media competency is needed in order to reflect the presented contents and to understand the effects of images. Still more important is that young people hardly use the news channels that are explicitly working on that. An improved pedagogical inclusion of the comprehensive TV offers within educational projects is needed, but for various reasons often rather difficult.

[75] http://www.zeit.de/2013/22/infografik-tv-fernsehen, 27.10.2016

2.4 New tasks for schools

Nowadays schools implement their educational mandate with far-reaching self-responsibility. Normally this brings expectations that the implementation goes beyond the individual school profile, which shows the focus of the educational work, and presents the realisation of stipulated education plans in a school curriculum. In the context of the UN decade "Education for Sustainable Development" (2005–2014) many schools have already anchored the sustainability paradigm in one or the other way in their profile and educational activities. With its cosmopolitan perspective the Curriculum Framework offers orientation and structural as well as didactic support for this process.

The trend to full-time schools is a chance
The continuous demand and establishment of new full-time schools supports the implementation of the objectives of the Curriculum Framework within and beyond the key task of lessons. The content of the ESD learning area needs to be tuned with existing and new forms of school organisation which enable the connection of classroom learning with activities like school partnerships, sustainable student companies, environmental working groups etc. (see chapter 5).

This needs the step-by-step creation of supportive external preconditions like libraries with appropriate media and literature from the Global South. The extended time frame gives room for projects with the participation of external organisations. The proposals of civil society actors are increasingly important in this regard. The central ESD/Global Learning server www.globaleslernen.de and its search functions offer easy contact possibilities. The NGOs' contribution to Education for Sustainable Development is promising if the partners can integrate into the situation of the structured learning location of schools. This also applies to persons from countries of the Global South who can offer a lively and authentic perception of the living conditions in their regions of origin.
Normally, external cooperation partners are not familiar enough with educational processes and school structures. The Curriculum Framework offers the basis for an agreement on a coordinated approach (e.g. the orientation at core competencies and standards, binding contents and appropriate methodological approaches). It can be used for the quality control of external offers and, by appropriate agreements, it can commit cooperation partners to the principles and competencies of Education for Sustainable Development.

Possibilities of cross-curricular and subject-linking education
In the last years there was a trend in some federal states/Bundesländer to link subjects to connected subject fields and to support cross-curricular and subject-linking modes of education. This trend facilitates the introduction of ESD/Global Development Education which coordinates contents and standards of complementing or even overlapping subjects within a school curriculum. This has always been applied in primary education, which is principally (e.g. in the subject "Sachunterricht") designed cross-curricular. On secondary Level I, subject or learning areas have been introduced in many places (e.g. "Nature and technology", "Society", "Work and profession", "Arts"), with the purpose to offer learning situations true to life. Likewise, at the secondary Level II, cross-curricular learning in profiles has become

important. In vocational schools the formulation of framework curricula based on learning areas which has been introduced in 1996 can support the consideration of ESD/Global Development Education, especially where professional work has multiple connections with globalisation issues.

For ESD/Global Development Education, first establishments at the school level and first framework curricula have been introduced in some federal states. In Hamburg e.g., there have been *frameworks plans for Global Learning* for quite a while from the primary to the higher secondary school level in the context of legalising so-called task fields (Aufgaben-ge-biete).[76] For schools in Berlin, *Curricular specifications for the school years 5–10 'Learning in global contexts, Education for Sustainable Development'* have been produced.[77]

Result orientation and opening of the school

The result orientation and relevance for school examinations are almost self-evident, if the contents of ESD/Global Development Education become mandatory requirements via the respective competencies and themes of the subject-related frameworks. The different quality aspects of education come in sight in the context of the nation-wide discourse on quality development. It is taken for granted that teaching and learning processes at school can become fully effective in the context of a versatile school life and of the opening of schools towards their social environment. How far school succeeds in integrating relevant cooperation partners of the society and in connecting current as well as future oriented subject areas and global perspectives with professional qualification – this is regarded as an important attribute of the quality of learning processes.

Reducing educational disadvantages and strengthening equality of opportunities

The repeatedly proven discrimination of students with disadvantageous socio-economic starting conditions is part of the framework situation of ESD/Global Development Education; even if the results of PISA 2012 show some progress, German schools only reach the average of the OECD in this regard.[78] The percentage of migration children which rises to one third in pre-school age illustrates the demands on schools. Regarding inclusion there are deficits in European comparison which, together with the growing number of child and youth refugees, emphasise the need to align efforts towards equal opportunities with the principle of sustainable (and hence human rights oriented) development. In the context of manifold efforts to delink educational success from the social background, it is interesting

[76] www.hamburg.de/bildungsplaene, 27.10.2016; for implementation see Didaktisches Konzept Globales Lernen: http://www.globales-lernen.de/materialien/unterrichtsmaterial/, 27.10.2016
[77] http://tinyurl.com/otdbxqf, 27.10.2016
[78] See http://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm, 27.10.2016

that the offered activities of Teach First Deutschland are increasingly oriented towards the implementation of ESD projects. Here, university graduates of all faculties volunteer as so-called fellows at problem-afflicted schools. For two years, they tutor disadvantaged students and "challenge, promote and enthuse them for learning"[79]

In principle, all parties of the German federal parliament (Bundestag) commit themselves to anchoring the paradigm of Education for Sustainable Development in educational institu-tions. They are dedicated to making "education inclusively accessible for all children, ado-lescents and adults, irrespective of their socio-economic background, their gender or other factors."[80]

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[79] www.teachfirst.de, 27. 10. 2016
[80] http://dip21.bundestag.de/dip21/btd/18/041/1804188.pdf, 27. 10. 2016

2.5   **Educational challenges**

Child-care centres and primary schools

Long-time experience and empirical research have shown[81] that the contents of ESD/Global Development Education should be included within general education as early as possible. No later than at the age of five attitudes towards people from other countries or cultures develop, and after the age of five they start to become rigid – a global phenomenon, obvious through international comparison. This finding is confirmed in a recent empirical research study from 2013[82] which proves that girls and boys at the age of 6 to 8 prefer to be with their peer groups (in-group preference) while they ascribe mainly negative attributes to so-called out-groups. On the one hand, these prejudices of the kids against the non-familiar reflect the norms of the environment of adults they are living with (parents, relatives, TV, picture books), which they integrate casually. On the other hand, they also correspond to the children's safety needs in their own peer group and to their developmentally conditioned enclosure of their own opinion. These prejudices against out-groups are reinforced if children are educated in a restrictive and authoritarian way. But pertinent research[83] has proven that these prejudices can be turned positive if at an early stage children are inspired to inclusive thinking, cooperation and solidarity in true-to-life action contexts, linked with the acquisition of an appropriate base of knowledge.

The selection of topics for this age group principally requires a close linking of near and far, of familiar and less familiar. This need already follows from the heterogeneity of life in contemporary childhood, last not least determined by the early encounter with the diversity of the global world (television, picture books and ordinary life). According to the principle of *social proximity* efforts towards an open attitude for otherness and partnership with people from abroad should be embedded in a comprehensive social education in action fields like: Playing, housing conditions, eating, celebrating, environment, family life, outsiders, conflicts on the playground etc. These subjects can be extended into the seemingly remote world: Living and working here and elsewhere. Here we should not forget that in times of increasing globalisation the "remote" often is near and that the objectives of social education like self-reliance, critical ability, cooperation and solidarity can only be achieved by dealing with authentic social problems. Life in a group, in the class, in the family is rarely stress-free. It is not easy to address ethnic differences which affect the own group or class because it can trigger or reinforce unwanted stigmatisations of the respective children (see Diehm 2000). Children can only acquire important competencies if they learn to understand and handle reality better. To empathize with children in totally different life situations, is not only to feel admiration or compassion but to better understand the own lifeworld and develop own standards and openness towards social and cultural diversity. At pre-school and primary school age, this is neither about pointing out nor about avoiding contrasts (housing conditions, food, threats by poverty and war) but about the comprehen-

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[81] See Schmitt, R. (1979); Brünjes, W. (2007)
[82] See Buttelmann, D. and Böhm, R. (2014): The ontogeny of the motivation that underlies in-group bias. In: Psychological Science 25, p. 921–927
[83] See Sir Peter Ustinov Institut (Ed. 2007): Vorurteile in der Kindheit, Ursachen und Gegenstrategien, Wien

sible confrontation with the perceptions of children in different living conditions. Problems may not remain unsolvable but solutions have to be searched for – by and with the children.

Secondary Level I
For the continuation of ESD/Global Development Education in secondary schools the (often very) different pevious experiences and skills of primary level pupils should be detected and become the starting point for new educational projects.

While at primary school topics of ESD/Global Development Education are normally coordinated with relevant contents of subjects at that level, they need to be integrated in the curricula by internal coordination between school subjects at the Secondary Level. In secondary schools the cognitive spectrum and complexity of requirements for students, their critical awareness, their self-reliance and sense of responsibility, their emotional commitment and hence their scope of action, should widen continuously.

Apart from growing requirements regarding the ability to think in abstract terms and to deal with higher complexity, it is about developing and strengthening cross-curricular competencies which are oriented towards the principles of ESD/Global Development Education:
· Orientation towards the fundamental principle of sustainable development
· Analysis of development processes on different levels of action
· Appreciation of diversity
· Ability to change perspective
· Context- or Lebenswelt (lifeworld)-orientation

This applies to all four dimensions of sustainable development: Primary school topics like *family, celebrations, school attendance* etc. are enlarged in the dimension *Social Affairs* at the Secondary Level and will be addressed in the thematic areas *(14) Demographic structures and developments, (15) Poverty and social security, (7) Education* etc. (see chapter 3.6). Key issues that are focussed in Sachunterricht lessons at the primary level under the title *Products from faraway countries*, are expanded in the dimension *Economy* with topics like *(4) Commodities from all the world: Production, trade and consumption, (13) globalisation of business and labour* etc. At the Secondary Level, primary school insight about decision processes in the family, at school and in the community extends towards the dimension *Politics* with contents from thematic areas like *(18) Political rule, Democracy and Human Rights, (20) Global Governance* etc. Topics like water, air pollution etc. widen into the dimension *Environment* and thematic fields such as *(11) Global environmental change, (9) Protection and use of natural resources and generation of energy* etc.

The specific requirements of Secondary Level I concern the demand for coherence (see chapter 1.3.5), i.e. the analysis of target conflicts and the setting-up of sustainable development concepts by coordinating objectives and interests. Here it is essential to realise interdependencies between local and global processes and to connect them with personal values as well as realistic options and to avoid superficial helpfulness and proposals to save the world. In

ESD/Global Development Education the goal of learning as self-determined as possible aims at acquiring fundamental competencies in the fields of *Recognising* (Erkennen), *Assessing* (Bewerten) and *Acting* (Handeln), and the experience of self-efficacy in their application (see chapter 4.1.2).

Secondary Level II, vocational education and lifelong learning

In the first edition of the Framework (2007) the significance of ESD/Global Development Education for vocational education was already outlined. It needs – like the implementation on Secondary Level I – to be further defined conceptually. Beyond the Secondary Level the core competencies of this learning area are the foundation of continuing learning processes in universities or vocational education. Starting from a basic knowledge which needs to be established systemically and cross-linked with respect to its context in order to secure its applicability, the awareness of the personal and societal relevance of lifelong learning (acquired at school) is an imperative precondition for the successful management of social, economic, political and ecological challenges in the future. The special contribution of ESD/Global Development Education is that it prepares for handling complex processes of globalisation and challenges of sustainable development.

The objective to acquire core competencies for the private and professional life as well as for the participation in one's own community and for the shared responsibility in the global context can only be achieved if learning processes at school are positively valued and experienced as unlimited. The openness of global change has to be met with lifelong openness for challenges and sustainable development approaches, supported by a motivation for learning.

Identity, changes of perspective and value orientation

The willingness to accept challenges that arise from a global perspective always requires the struggle for a basic consensus in important questions. Thus, from an ethical, anthropological and human rights perspective, *equality of cultures* does not mean that cultures are or should be more or less self-same. We have to avoid the possible misunderstanding of the "One World" concept that human beings and the social, economic, political and ecological realities should generally be made "selfsame" everywhere (see BOX 4 Eurocentrism). This error can be avoided if students are aware of the diversity of living conditions and cultural patterns and of their own constantly changing identities.[84] When forming their cultural identity they pick up a multitude of elements of different origin and connect them. Apart from openness (in contrast to the traditionally cultivated demarcation) inclusive perspectives and the ability to realise the own cultural preferences – to be aware of the own values and motivations for the acceptance of cultural patterns – are important attitudes and abilities which should be supported in the context of (trans)cultural education in ESD/Global Development Education. "Central task of transcultural education is to communicate that cultures are not attributes of difference but chances for participation."[85]

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[84] Wolfgang Welsch was arguing that the contact of cultures will not bring a global culture, but that individuals and societies arise that include transcultural elements. "Today, more and more people are intrinsically transcultural." (transl. TS) (see Handlexikon Globales Lernen, 2012, p. 228)

[85] Takeda, A., 2012

The importance of a change of perspective in ESD/Global Development Education lies in the ope-ning of windows of perception for the different. The irritation connected with this change opens the chance for a conscious perception of one's own thinking and of realities from an unfamiliar point of view. A change of perspectives requires and supports the ability to tolerate ambiguities, the ability to appropriately reduce complexities, and the ability to critically evaluate circumstances. Here, we have to distinguish the value-related reflection (where values are analysed as facts) from the normative debate in which value orientations are checked and possibly adopted for one's own behaviour. The principle of sustainable development gives orientation and help to structure the learning process. It should not be confused with its normative function (to build "guide rails"), which is often relevant in pol-itics. In the context of global development, the pedagogical objective of changing perspec-tives is to become familiar with hitherto unfamiliar patterns of perception and evaluation. It helps to understand and respect people who may be different while simultaneously becom-ing aware, strengthening and changing our own identity. This is the precondition for Global Citizenship[86] and for the acceptance of shared responsibility in the "One World", where not only understanding and tolerance but most of all solidarity in thinking and acting as well as the protection of basic values are needed in order to cope with developmental crises, human rights violations, terrorism, ecological disasters and other global challenges. Value orienta-tion and personal commitment are the central objectives of ESD/Global Development Edu-cation. Here, on the one hand, identification with basic values is indispensable, most of all with the values that can be deemed to be universal human rights. On the other hand, moral rigour would be dangerous especially for children and adolescents as it excludes (or simpli-fies) complex social, economic, political and ecological structures from the perspective. Therefore, a workable commitment for the implementation of personally accepted values also needs the rational and sometimes controversial discussion of the different social, eco-nomic, political and ecological facts and of the understanding of their momentum.

Thus, ESD/Global Development Education is integrated in the overall context of school ed-ucation, which aims at realising objectifying, reflecting, and organising complex realities and which consciously avoids indoctrination. In this task, teachers are not just experts in their subject but also interlocutors. A differentiated analysis of problems is the precondition for an activity-oriented engagement in lessons that supports processes of conflict resolution. The individual processing of the topics of ESD/Global Development Education is an impor-tant pedagogical task for the development of consciousness and personality, particularly for children and adolescents who respond to human suffering with consternation. Wherever global problems of development and environment are addressed which are open and unre-solved, young people should not be deprived of hope when looking forward to their future. Therefore, it is important to accompany the students and pupils in their search for possible solutions which they deem important for the formation of their personal life.

[86] See the Global Education First Initiative of the UN General Secretary, 2014: www.globaleducationfirst.org, that mentions three priorities: Every child in school, quality of learning and Global Citizenship

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3   Competencies, themes, standards, design of lessons and curricula

Jörg-Robert Schreiber

3.1   Introduction

The Curriculum Framework provides a structural basis for Education for Sustainable Development (ESD) in schools. It offers support for developing curricula, for designing lessons/ learning units and for defining and assessing standards in this learning area. Even though the Framework does not systematically define learning objectives or educational content, or propose a chronology or specific learning methods, leaving these tasks to the state or school curricula, it does make suggestions for the elaboration of

· **competencies** that students should develop,
· **thematic areas** and contents that are important and suitable for developing these competencies,
· and **performance standards** to be achieved.

All three aspects are directed towards **the educational goals of this learning area** to ensure that they are attained as well as possible:

Global development education/ESD gives students orientation in an increasingly
globalised world, which they can build upon in the course of lifelong learning. Following the guiding principle of sustainable development, it aims at developing basic competencies
· for shaping one's personal and professional life,
· for actively involving in the transformation of society,
· and for accepting shared responsibility on a global level.

The definition of competencies, topics and performance standards is based on the practical experience with different school subjects and cross-curricular projects, while the educational objectives of the learning area emerge from the societal, scientific and political debate on global change.
Competencies, topics and performance standards which are necessary in order to attain the educational objectives should (apart from methods and forms of learning which are chosen by the teachers) should determine the design of lessons in this learning area. They allow for the quality control for which schools are responsible.

The suggested competencies connect with the definitions and selection of key competencies according to the OECD[87] and to the European framework of reference "Key competencies for lifelong learning" (2006). They include essential elements of key competencies of this European framework of reference which has been adopted by the European Parliament, most of all in the areas: 5. Learning to learn and 6. Social and civic competencies.

The Curriculum Framework of orientation is based on an integrative understanding of competency and the connected objective to use knowledge, skills and attitudes in a self-organised way on the background of the principle of sustainable development. This understanding of competency corresponds to the basic elements of the concept of Gestaltungskompetenz which was developed between 1998 and 2008 in the context of the BLK / KMK programmes on Education for Sustainable Development.

De Haan's attempt (2014) to systematically present existing ESD competency concepts in a "cadaster register" of competencies shows that ESD competencies can also become accessible by a conventional classification in subject and methodological competencies, social and personal competencies as well as by structuring them according to the OECD[88] key competencies, and that they are internationally compatible.[89]

Not only the respective context with its objectives has been relevant for the development of different competency catalogues but also the operational compatibility with the dominating practice in school subjects.

While the twelve specific competencies that have been developed in the context of BLK programmes are generally and basically relevant for school education and mostly generic, the eleven core competencies of the Curriculum Framework of orientation are more focused on sustainable development and globalisation. For the establishment of the learning area *Global Development*, they are directly compatible with competency-oriented learning in school subjects.

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[87] Rychen et al. 2003. The close connection can be seen when the DESECO key competencies are deducted from the challenges of globalisation and modernisation "such as balancing economic growth with environmental sustainability, and prosperity with social equity", DESECO 2005, p. 6

[88] Using tools interactively, functioning in socially heterogeneous groups, acting autonomously

[89] Also see the analysis of Wiek et al. 2011

3.2   Fundamentals of a model of competencies for Global Development Education/ESD

Competencies describe – according to the explanations of the Conference of the Ministers of Education and Cultural Affairs (KMK) on the conception and development of standards for education (2004) – "dispositions for meeting certain requirements" that are defined for subjects or learning areas and need to be acquired by dealing with contents.

The expert report "Zur Entwicklung nationaler Bildungsstandards" (On the development of national educational standards – Klieme et al. 2003) suggests developing competency models with partial competencies that also represent gradations or developmental stages of competencies. It is most important, however, to define the learning expectations for students as competencies that should be fully developed at specific stages of their school career.

As a tool meant to guide both federal states/Bundesländer and the school level in curriculum development, the Framework adheres to the general tendency of putting a stronger emphasis on performance standards in curricula and allowing schools to concretise the implementation themselves.

The learning area Global Development/ESD, in contrast to integrative learning areas, does not develop by combining certain school subjects. Instead, it is a cross-curricular field of its own. It exhibits the main characteristics of a domain, as it arose out of a specific approach to the world and has developed over decades as One World/Development Policy Education or Global Learning.

The core competencies defined for the learning area Global Development Education/ESD are the foundation for a model of competencies that is given shape for primary school (until the end of Year 4) and for the intermediate leaving certificate at the end of Secondary Level I, but needs to be differentiated for the following years at Secondary Level II.

Competencies, according to the OECD report "Definition and Selection of Competencies" (2005), should aid people in meeting the societal demands of global change and following their personal goals. The societal objectives named by the DESECO-Commission in this context:
- economic productivity,
- democratic processes
- social cohesion, equality and human rights
- ecological sustainability

are fundamentally similar to the four target dimensions of the **principle of sustainable development** which the educational objectives of Global Development Education/ESD are aligned to:

Intergenerational justice

Social Affairs

social justice

Economy

Environment

CULTURE

economic performance

ecological compatability

Politics

good governance

Global justice

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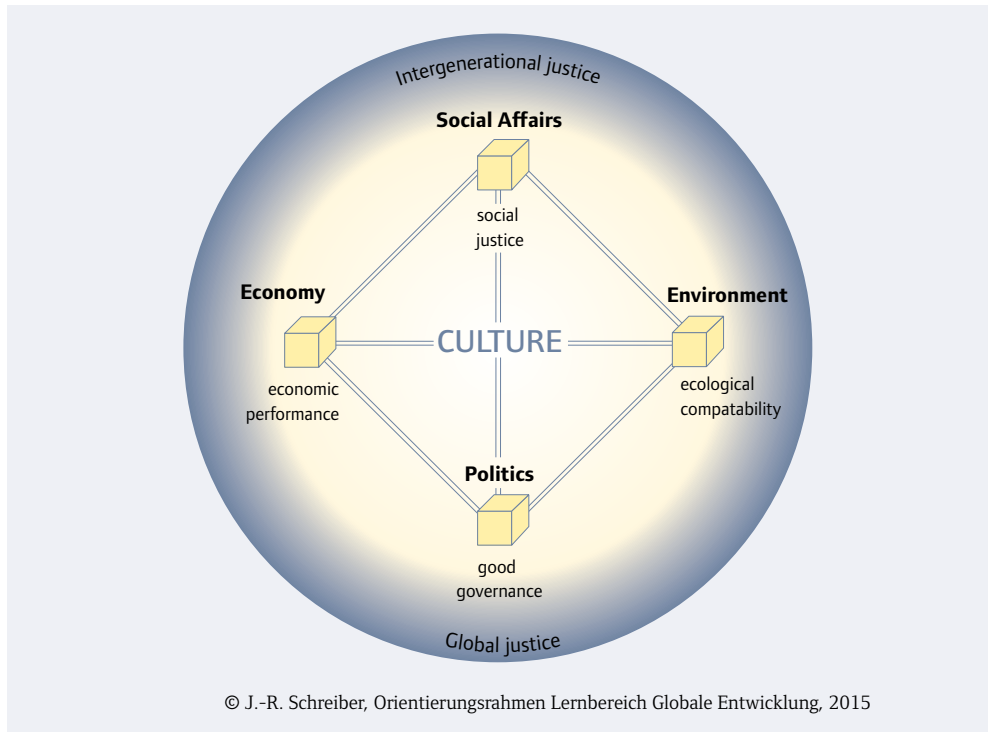
Fig. 9: The guiding principle of sustainable development

The principle of sustainable development which is not primarily normative in education (defined by "guide rails" or by planetary boundaries), but which offers orientation, is the central concept for *Education for Sustainable Development* (ESD) and hence the most important of the **five guiding principles for Global Development Education/ESD:**

- Orientation towards the principle of sustainable development
- Analysis of development processes on different levels of action
- Appreciation of diversity
- Ability to change perspective
- Context- or Lebenswelt (lifeworld)-orientation.

Facing the target conflicts between the four dimensions of development and the requirement of coherence (see chapter 1.3.5) the *alignment with the principle of sustainable development* is about overcoming (or reducing) such conflicts on the background of diverse cultural and socio-economic situations and interests. It is generally of subordinate significance when and to which extent the objective of sustainability can be fully attained.

As important *development processes* are controlled and influenced *on different levels*, the institutions' and stakeholders' options (from the consumer to global companies) have to be taken into account for the analysis of the complex interdependences.

In the global transformation process, the *diversity* of the views moulded by society and culture requires constructive processes of negotiation. Openness, empathy and the willingness and ability for a *change of perspectives* are preconditions for successful efforts.

The *context- and lifeworld-oriented approach* connects Global Development Education/ESD and the didactic concepts of school subjects. Taking into account relevant individual, societal and professional aspects for application is meaningful for the students. The alignment towards sustainability and a global dimension expand the significance of this concept in school education.

Altogether the core competencies of Global Development Education/ESD are needed as (transversal) cross-competencies, not only on the labour market but also in private and political life. They are interconnected as well as linked to certain specific competencies of different school subjects to form complex competencies in terms of the definition by Weinert (2001a, p. 27 f.): Competencies are "cognitive capacities and skills that individuals have or can acquire in order to solve specific problems and in order to successfully and responsibly use the connected motivational, volitional and social readiness and abilities for solving problems in variable situations." This integrative definition corresponds to the definition of competency on which the European Qualifications Framework is based. Following the French, British, German and American specialist literature, an ethical competency is included in this framework beside knowledge, skills and action.[90]

Effective competencies of acting – like the ability and willingness to pursue goals of sustainable development, based on mature decisions, in the private, school and professional fields and to participate in their implementation on the societal and political levels (core competency 11, chapter 3.5) – are unthinkable without the ability to acquire knowledge and to analyse and without the necessary evaluative competency. In order to identify elements of learning processes and to develop curricula, lessons and tasks, it makes sense to subdivide partial competencies as components of a complex competency. This allows to assess defined requirements.

The three over-arching competency areas of the Curriculum Framework are modelled after the educational standards which the KMK has set for the intermediate leaving certificate, i.e. according to competencies that school subjects are expected to focus on.

Dividing competencies in this way is important for the design of lessons and for performance assessments. Such theoretical divisions, however, should not obscure the fact that meeting the complex demands of an increasingly interconnected world necessitates complex competencies that can be developed best in a holistic, situation-bound learning process.

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[90] Commission of the European Communities (2005): Towards a European Qualifications Framework for Lifelong Learning: "Competence includes: i) cognitive competence involving the use of theory and concepts, as well as informal tacit knowledge gained experientially; ii) functional competence (skills or know-how), those things that a person should be able to do when they are functioning in a given area of work, learning or social activity; iii) personal competence involving knowing how to conduct oneself in a specific situation; and iv) ethical competence involving the possession of certain personal and professional values.", p. 11

3.3   Competency areas

The division of Global Development Education/ESD competencies into the areas of

- **Recognising** (Erkennen)
- **Assessing** (Bewerten)
- **Acting** (Handeln)

is to point out (by following a conventional educational concept) the different but complementary components of a holistic idea of competency. They mirror the behaviour expected of the students (recognise – assess – act)[91], but should by no means suggest a consequent didactical succession in the construction of lessons.

Within the competency area **recognising**, the ability to gain knowledge in a target-oriented manner is of particular interest, since the exponential growth of knowledge in many disciplines makes it more and more difficult to define fundamental knowledge and to continually stay up to date. Which interdisciplinary knowledge is necessary depends upon the topics covered in the learning area (chapter 3.6).

The ability to construct knowledge on a variety of topics is essential for the acquisition of knowledge. This competency goes beyond technical skills and the ability to use certain media by including the ability to use specific communication tools in an efficient and targeted manner. In teaching practice at schools, it should be connected with computer and information skills in media education as they have been constructed in the context of the International Computer and Information Literacy Study 2013.[92]

The boundary to the competency area **assessing** is fluid when it comes to the ability to use media critically and the key ability to recognise the suitability and worth of information and its sources. There is a connection to the competency area **acting** by communicating feedbacks but also in successful actions and failures as well as in the interactive process of information acquisition. The acquisition and processing of information as well as the acquisition of knowledge are the necessary basis for the formation of opinions and decisions and for responsible action.

"Knowledge about global development processes is most of all characterised by a high level of complexity, which can best be coped with by a system-oriented approach. The competency to deal with and understand interconnected systems is therefore in the centre of knowledge component (…)" (Rost 2005, p. 14). Rost further points out that – in the context of education for sustainability – system competency needs to be based on knowledge from a variety of disciplines. In Global Development Education/ESD, this means that cross-curricular or subject-linking lessons are dependent on basic knowledge acquired in different fields.

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[91] This classification can be compared to the three DESECO key competencies:
   1. Use tools interactively (recognising),
   2. Interact in heterogeneous groups (assessing),
   3. Act autonomously (acting), but in all three areas of competency, "acting" is more pronounced

[92] See ICILS 2013: http://www.waxmann.com/fileadmin/media/zusatztexte/ICILS_2013_Berichtsband.pdf,
   27.10.2016

In Global Development Education/ESD, the acquisition of basic knowledge is determined by
- the concept of understanding the world by the multi-dimensional guiding principle of sustainable development on an analytical and ethical level,
- educational concepts of various school subjects (see chapter 4), and
- the context model which chooses topics for learning processes according to their relevance for science and society as well as for the students' lives.

Complex systems require analytic skills, which are a further key component of the first area of competency. They are based on the principle of sustainable development and on its four dimensions, as well as on the model of structural levels (from the individual to the global) and on the perception of diversity. These analytical skills make it possible to realise the significance of global processes for oneself and others, to recognise the necessity to shape globalisation processes as well as to work on future scenarios and possible solutions. They help to create the knowledge, insight and skills necessary for future-oriented action. The skills needed include the ability to analyse systems and to recognise and assess the historic and future dimension of fundamental operating principles. Analytical skills are also necessary to recognise conflicts between development dimensions to understand differing interests and needs and to distinguish the important from the less relevant in order to propose well-founded solutions for problems.

The competency area assessing focuses on critical reflection and on recognising and weighing differing values, as well as developing an identity based on ethical consideration. These are preconditions for "solidarity and shared responsibility for humans and the environment" (Core Competency 8, chapter 3.5), which marks the intersection to the competency area acting. In the context of cultural interaction, this means to be able to recognise own values and the values of others, to question these values and to make them accessible in dialogue. This necessitates the ability and willingness to empathise and to change the perspective which can challenge our world view and lead to new insights and changed attitudes. Perspectives can be changed among a variety of positions: actors and observers; those who make and those who are affected by a decision; people from different cultures, nations and institutions; different age groups and genders; the powerful and the powerless. The change of perspectives includes factual differences as well as variations in attitude and emotional reactions formed by differing values and interests, without overlooking the fact that there are flowing transitions between opposite poles.

Within Global Development Education/ESD, the competency to assess is on the one hand part of a fundamental discourse about development and globalisation (Core Competency 6, chapter 3.5), and on the other hand it is focused on the evaluation of concrete development projects (Core Competency 7, chapter 3.5). In both cases, one must be able to look at norms, values, political agreements and principles, reflecting on them critically and thus making conscious identification possible.

The competency to assess also means that the guiding principle of sustainable development, its claim to universality and its normative attributions are questioned, interpreted, and further developed. In the educational process, however, it should be made clear that the guiding principle of sustainable development is a framework agreed upon internationally, in accordance with human rights and binding international law, which is extremely obligatory for political, social and individual actions. "Guiding principle" and "framework", however, mean that in the global society there are different cultural, national, local and individual strategies for the implementation of sustainable development. The 1992 Rio Declaration mentions the "common but differentiated" responsibilities arising from different conditions of development and the diversity of socio-cultural contexts.

Acting competencies linked to the reflection on values play a very important role for the central objectives of this learning area. Such competencies include promoting understanding and conflict resolution skills (Core Competency 9, chapter 3.5), ambiguity tolerance, creativity and the willingness to innovate (Core Competency 10, chapter 3.5), as well as participation and active involvement in development processes (Core Competency 11, chapter 3.5), and most of all the readiness to align one's own behaviour with the personal principles of a sustainable way of life. Usually a conscious choice must be made between different ways of acting: conflicts of interest and conflicts of values must be clarified and the direct and indirect consequences of actions assessed. Acting means designing projects by oneself and with others, setting goals, using resources economically and effectively, learning from mistakes and being able to make corrections. Complex situations and rapid transformation require the ability to deal with uncertainty and contradictory expectations, such as the emphasis on variety and universality. The competency to act means, broadly speaking, communication skills: the ability to effectively pass on information but also to listen, to search for sustainable solutions in media exchange, dialogues and discussions, to stand up for one's own rights and interests, but also to defend the rights of others.

It is essential not only to ensure the ability to act sustainably, but also to take into account the "motivational and volitional" elements of the term "competency" in the form of a preparedness for action. This is only possible when teachers strictly adhere to the prohibition of overwhelming students and to the imperative to treat controversial subjects as controversial, when students are to make an autonomous decision to aim for sustainable goals and participate in their implementation. In this respect, the core competency of "participation and active involvement" (Core Competency 11, chapter 3.5) includes the ability to make autonomous judgments, i.e. to take other perspectives into account, and the respect for legal boundaries and valid norms when using freedoms.

3.4   Selection and definition of competencies

The selection and definition of core competencies for Global Development Education/ESD is oriented towards the guiding perspective of a successful life. It is a pragmatic compromise that takes the following criteria into account:

1. Central importance for achieving the main educational objectives (chapter 3.1)
2. Orientation at the guiding principle of sustainable development (chapter 3.2)
3. Emphasis on the global perspective and on the model of structural levels
4. Observance of diversity and the central competency of shifting perspectives
5. Relevance with regard to context-oriented learning
6. Compatibility with partial competencies of school subjects
7. Balanced construction of the competency areas recognizing – assessing – acting
8. Feasibility of competency acquisition in school subjects or cross-curricular/subject-linking forms of organisation
9. Obligatory for students in all types and at all levels of schools
10. Possibility to assess performance (of specific competencies)
11. Demarcation against generic competencies.[93]

Not all of these criteria can be equally included within this elementary model of competencies. This particularly applies to the criterion that core competencies and partial competencies should be translated into performance requirements that can be evaluated – as illustrated by examples in chapter 4. The purpose of measuring performance is not to elaborate standards for this learning area. The measurability of competencies is not in the focus, unless required in subjects like German, English, Mathematics and Natural sciences that orient at national standards for education. The easiest way to make this possible is by specific competencies for projects which align with the core competencies of Global Development Education/ESD. They are thematically defined and narrower in scope.

For this learning area, the necessity to assess and compare performance is mainly deduced from didactic requirements, i.e. for the design of lessons, and from the need to perceive learning outcomes and to give appropriate feedback to students. Competency-oriented lessons in Global Development Education/ESD do not follow strict requirements to diagnose competencies, and hence they are not confined to cognitive performance but support the development of attitudes and values which are regarded as equally relevant by Weinert (2001b).

The differentiation of competency levels has to be left to the design of lessons; here competency levels – just as the course of competency progress – can only be indicated by sample lessons/learning units (see chapter 4).

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[93] See the generic/supra-disciplinary competencies in *Didaktisches Konzept* der Reihe Globales Lernen, 2010 p. 15–17

3.5   Core competencies of Global Development Education/ESD

The students are able to (…)

Recognising	**1.**	**Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.
	2.	**Recognising diversity** (…) recognise the socio-cultural and natural diversity in the One World.
	3.	**Analysis of global change** (…) analyse processes of globalisation and development by using the concept of sustainable development.
	4.	**Differentiation between levels of action** (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.
Assessing	**5.**	**Change of perspectives and empathy** (…) realise, appreciate and reflect upon own and others' values and their significance for life.
	6.	**Critical reflection and comment** (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.
	7.	**Evaluation of development projects** (…) work out approaches to evaluate development projects (here and in other parts of the world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.
Acting	**8.**	**Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.
	9.	**Understanding and conflict resolution** (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.
	10.	**Ability to act in times of global change** (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and to bear open situations.
	11.	**Participation und active involvement** Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.

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[94] **The students are able to** (…) means – in this context – that they have the competency but decide autonomously whether or not they want to apply it in a certain situation

3.6   Thematic areas and choosing topics

Global Development Education/ESD is integrated into the curricula of a number of subjects. A variety of topics are covered by subject-specific perspectives and in cross-curricular or subject-linking approaches.[95] The curricula are usually not coordinated, however. Due to the problem focus and the preferred relevance to the current situation thematic contents of the chosen topics are often dominant in the lessons. The skills and knowledge acquired are important, but they remain fragmented, and don't necessarily connect with the competencies needed in order to solve problems in variable situations.

Whereas the competencies to be acquired are limited in number and change only gradually in the course of societal transformation, this is not true for the topics covered by the learning area. Competencies can only be developed situationally and by dealing with problems of concrete topics which present thermselves in seemingly infinite number and often become obsolete quite quickly. Therefore, this Framework only suggests thematic *areas* and criteria for selecting topics that allow teachers to create learning situations in which certain competencies can be developed.

Definition of thematic areas
As in choosing competencies, the selection of thematic areas (see below) is a compromise to meet diverse criteria. Thematic areas and topics are selected according to a context model. The content is put into a context that is meaningful for the learner. Analogous to the basic concepts of the subjects involved, a particular focus is on the guiding principles of Global Development Education/ESD.

Thematic areas should:
- represent basic knowledge relevant to the learning area
- illustrate the multidimensional character of the guiding principle of sustainable development
- address globalisation and global development processes
- at the same time be relevant to students' lives and make a global perspective possible
- be grouped in a manner that is typical for the academic or social discourse
- draw from educational experience

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[95] See chapter 2.4 on the inclusion of the learning area in the curricula of Hamburg and Berlin

Thematic areas

1. Diversity of values, cultures and living conditions: Diversity and inclusion

2. Globalisation of religious and ethical guiding principles

3. History of globalisation: From colonialism to the "Global Village"

4. Commodities from around the world: Production, trade and consumption

5. Food and agriculture

6. Illness and health

7. Education

8. Globalised leisure-time activities

9. Protection and use of natural resources and generation of energy

10. Opportunities and risks of technological progress

11. Global environmental change

12. Mobility, urban development and traffic

13. Globalisation of economy and labour

14. Demographic structures and developments

15. Poverty and social security

16. Peace and conflict

17. Migration and integration

18. Political rule, democracy and human rights (Good Governance)

19. Development cooperation and its institutions

20. Global Governance

21. Communication in the global context

The list of thematic areas is not closed; it can be augmented by using the mentioned criteria, e.g. by adding the thematic area "Global financial markets". In the context of the construction of school curricula, topics will be selected from these thematic areas for the elaboration of tasks and for the design of learning situations according to subject-specific and cross-curricular realisation possiblities. These topics should be particularly suitable to enable students to acquire competencies of the learning area and to meet the respective performance requirements.

Selection of topics

The selection of topics and the design of tasks and learning situations should follow certain criteria:

- reference to core competencies of all three competency areas, with a clear focus
- reference to the principle of sustainable development and to the model of structural levels
- enabling a change of perspectives
- connection to learning processes in one or more subjects
- connection to students' real life experiences and relevance for their education
- topicality and long-term relevance for society/politics
- enabling self-organised learning
- good chances to be implemented in the existing school organisation.

Selected topics are displayed in a grid showing competencies and thematic areas of the learning area (see next page) in order to allow an overview in the curricular and educational planning process. The assignment of certain topics to selected core competencies of Global Development Education/ESD is only relevant for the chosen focus.

Thematic areas	Competencies										
	Recognising				Assessing			Acting			
	1. Acquisition and processing of information	2. Recognising diversity	3. Analysis of global change	4. Differentiation between levels of action	5. Change of perspective and empathy	6. Critical reflection and comment	7. Evaluation of development projects	8. Solidarity and shared responsibility	9. Understanding and conflict resolution	10. Ability to act in times of global change	11. Participation and active involvement
1. Diversity of values, cultures and living conditions: diversity and inclusion											
2. Globalisation of religious and ethical guiding principles											
3. History of globalisation: From colonialism to the "Global Village"											
4. Commodities from the around the world: Production, trade and consumption											
5. Agriculture and food											
6. Health and illness											
7. Education											
8. Globalised leisure-time activities											
9. Protection and use of natural resources, generation of energy											
10. Opportunities and risks of technological progress											
11. Global environmental changes											
12. Mobility, urban development and traffic											
13. Globalisation of economy and labour											
14. Demographic structures and developments											
15. Poverty and social security											
16. Peace and conflict											
17. Migration and integration											
18. Political rule, democracy and human rights (Good Governance)											
19. Development cooperation and its institutions											
20. Global Governance											
21. Communication in the global context											

Fig. 10: Competencies and thematic areas for ESD

3.7   Performance standards

The eleven core competencies of Global Development Education/ESD are defined with regard to requirements for the Level I Secondary School certification. They are distinct, and it is possible to roughly determine to what extent students possess them. The competencies have to be further specified, though, in order to take tests for performance measurement. Such specifications are available for the partial competencies of school subjects or as even more specified competencies for projects and tasks (see chapter 4). Generally, the higher degree of specification and measurability can be achieved by referring to thematic aspects.

The holistic character of competencies is a special problem for their measurement, because it seems to inhibit the intention to measure complementary partial competencies in isolation. The underlying characteristics of the competency can only be deduced from the management of challenges (tasks) in practical applications (in the performance).

The possible degree of valid measurement of competency levels depends on the definition of competencies, on the respective tasks and on the available instruments and general conditions for their inspection. The constant monitoring of (oral and written) communication in lessons results in a broader scope of individual performance appraisal. Thus, it is indeed possible to determine the competency "Participation and active involvement" (11) during the lesson, i.e. the students' ability and willingness to act on the basis of autonomous decisions.

The definition of performance requirements for Global Development Education/ESD can only be realised by a cooperation of the school subjects in which the competencies of the learning area are being acquired.

3.8   Designing learning units

The fact that competencies are gaining importance for education monitoring has conse-
quences for the design of learning processes in the classroom. New models of competency
are usually constructed with the objective to enable students to deal with variable life situ-
ations autonomously. Learner-centred educational processes are becoming more important
in school education, as preparation for lifelong learning. This applies to lessons in general
and is particularly important for handling the complexity of Global Development Educa-
tion/ESD. The speed of global change and the development of competencies needed to
shape one's personal and professional life, as well as the participation in society, require help
for orientation.

Though we should not talk in terms of specific learning arrangements of Global Develop-
ment Education/ESD, the elements of action-oriented education as summarised by Meyer
(2006) are valid as a fundamental learning concept:
- The connection of knowledge and action in the sense of a value-based development of
  structural knowledge for complex situations is important in holistic learning processes.
- Active learning is based on theories (structural knowledge), learning from and acting
  on the basis of this theoretical knowledge and reflecting action in individual and social
  contexts.
- Active learning methods are aiming at the self-reliant development of knowledge,
  problem solving and creative capacities, including a lifelong learning disposition.
- Active learning is not limited to the location school, but rather opens schools and the
  learning process to include experiences in the fields of economy, labour, society and
  politics.
- Active learning is value-based and committed to the objectives of sustainability in the
  partly conflicting areas of environment, society, economy and politics. This means that
  it is open for designing sustainable developments.
- Student-centred learning is increasingly designed by the learners themselves, who are
  given planning, working and learning tools and are provided with partly-open educa-
  tional material.
- Teachers facilitate learning rather than impart knowledge; they help their students with
  the autonomous acquisition of knowledge and with finding value-based solutions with-
  in a social context. They design self-organised learning and teaching processes.

The educational materials referred to above have always played a key role for the develop-
ment of One World/Development Education and Global Learning.[96] They can be very im-
portant for the orientation towards competencies in this learning area and for the didactic
design of learning processes.

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[96] See the teaching material "Eine Welt in der Schule" (University Bremen) and the publications of organisations of
the "Pädagogisches Werkstattgespräch". For more than 20 years, they have been contributing a great diversity of
material; also see www.globaleslernen.de, 27.10.2016

In their synopsis on "Competency-based education", Asbrand and Martens (2013) note that the process of competency orientation which was initiated by the KMK education standards has helped changing the perspective from teaching to learning. This is closely connected with a change of the teachers' role and their function in the design of lessons. "It implies the consequent orientation towards the students' learning processes and the respective results (…)"[97] As competencies are proven when applied in various situations (performance), it is obvious that they are acquired in situations that are meaningful for the learner. Competencies (especially partial competencies and competency levels) are constructs that can only be noticed when applied. Therefore, it is the teacher's job to closely watch the students' learning processes and actions in order to realise developments and to design tasks and learning arrangements appropriately so that an increase in competency is supported.

These are the requirements which – in a complex field of learning – can only be realised in the course of a long practice that is supported by theory – especially as the acquisition of competencies is very different from person to person. The competency grids of the sample lessons (see chapter 4) help to make the first careful steps towards process models of a typical acquisition of competencies which need further theoretical foundation and practice-oriented research.

When planning competency-oriented lessons, the teacher is confronted with new tasks (see Schreiber 2010) like the necessary question: Which competency with which content? Or vice versa: Which content with which competency? Competencies are needed for meeting challenges in certain situations, and hence they are content-based. The significance of the content (of the respective challenge) for the development of competencies should not be underestimated. Hence it is helpful to search for the appropriate contents for the development of a particular competency. Often, the students' or the teacher's fascination for a certain content (e.g. due to its topicality) may justify the search for suited competencies.

Only in rare cases competencies and thematic content are connected in curricula, schoolbooks or teaching material in a way that makes them directly applicable in heterogeneous learning groups.

The content-related challenge of a certain topic and task is the motivating force for students to work on it in the lessons. Often, students hardly realise that while working on a topic they are acquiring competencies (this is what I want to be able to do). As soon as they feel confronted with real-life challenges the necessary competency will become desirable. Learning progress interviews in which students and teachers will become aware of the learning progress are becoming important in this context.

[97] Asbrand, B.; Martens, M. (2013), p. 8

The advantage of this approach is that contents are not just "worked off" but linked to the individual need for competency, and that the motivation for learning is coming from the topic/task and the personal competency gain. This requires that students can articulate their personal interests, realise their competency progress and experience self-efficacy.

Often the characteristic of the topics in Global Development Education/ESD is that they cannot be exclusively deduced subject-systematically. They address interdependencies and the phenomena of globalisation which are characterised by the dissolution of boundaries and by complexity. They require to have students directly experience their involvement in global processes and to strengthen their active learning. In this context, the significance of project-based learning has repeatedly been emphasised. This learning method can be justified by its special support of communication in heterogeneous groups and of sustained individual and shared responsibility in different situations avoiding rather demotivating teaching in small subdivided tasks. This learning method should be supplemented by Web 2.0 applications like weblogs (see chapter 2.3) widening the space and possibilities of communication and learning.

The point is to handle the tension between content and competency, and to anticipate the end of the learning process (at the end we will be able to (…)) and, nevertheless, to keep it open. Competencies don't only have to be selected but also defined in accordance with the situation, and the expectations have to be transferred into appropriate tasks.

The challenges for the teachers are high, since the learning area demands an internal curricular coordination and a cross-curricular design of lessons. Hence, a step-by-step approach is recommended which uses successful examples, cultivates cooperation within the school and looks out for external project offers. In any case, a connection with school activities will be supportive, which are not an integral part of the lessons but which are attractive forms of Education for Sustainable Development (e.g. sustainable students' companies (see chapter 5).

3.9   Guidelines for creating curricula

The Curriculum Framework for Education for Sustainable Development is to support the development of learning activities in school, but also to help the federal states/Bundesländer with the construction of curricula as well as the schools with their task to draft and apply internal curricula. Generally, schools perform this task voluntarily. In many cases this work has improved the quality of education, because an internal school curriculum supports professional communication and has influence on all teaching and learning activities.

Curricula are about when and how lessons are held, organised and structured, about the coordination of competencies between different school subjects, mandatory contents as well as results and standards. They support learning as an active, constructive and preferably self-organised process by school internal coordination.

To set up and continuously develop an internal curriculum is a challenge for most schools because various school subject curricula have to be coordinated with one another and with the general conditions of the location as well as with existing profiles. Several challenges have to be faced:
·   the use of flexible subject timetables (and of extended periods in full-time schools),
·   the cross-curricular acquisition of basic competencies such as reading, general social and methodological competencies or presentation skills,
·   the requirements, standards and contents in cross-curricular learning areas like Global Development Education/ESD.

In some federal states there are already curricula for cross-curricula learning areas, or they are just being developed. Here, we often have the merging of subject-specific educational tasks in areas like "Work and Profession", "Nature and technology" or "Society", to let the students realise the relevance for their own lives and to strengthen the lessons' reference to real contexts. Mostly, it is quite apparent which traditional school subjects participate in such learning areas. There are very few federal states that have already prepared general frameworks for interdisciplinary educational tasks that are implemented in cross-curricular or subject-linking ways.[98]

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[98] As an example, Hamburg has designe framework curricula for nine educational fields: vocational orientation, health promotion, global learning, intercultural education, media education, sexual education, social and law education, environmental education and traffic education; see http://bildungsserver.hamburg.de/aufgabengebiete/, 27. 10. 2016

The vast majority of educational plans/curricula are frameworks for specific school subjects that are often hardly coordinated with one another, and that suffer from too much content. They are oriented at the KMK educational standards – in subjects where they have been established. The new generation of curricula shows the intention to focus on competencies and requirements and to limit the number of mandatory contents within the core curriculum. Such educational plans/curricula are characterised by prescribing performance requirements, and in many parts they can be implemented freely. Thus the schools have more organisational freedom as they can make their own internal school curricula, but they also have to face growing responsibility. Within the given framework of curricula they can respond more quickly and flexibly to changed situations in society and to internal targets and requirements. The creation of internal school curricula is a permanent process of conceptualising, implementation and evaluation which demands a lot from school management, school boards and subject sections.

- The colleagues need to communicate, free from subject competition, about possible lesson allocations and timetables and hence about the priorities in the school profile.
- Competencies are far less accessible for structuring a school curriculum than topics.
- Teachers have to cooperate in organising the school self-responsibly as a systemic concept from the students' perspective. In this context they have to meet considerable social challenges and quickly changing standards and expectations.
- A successful school curriculum also requires a support concept which says how students are assisted who don't meet certain requirements.

These efforts are neither about allocation plans for subject matters nor isolated curricula which would automatically merge into an integrated curriculum, but a holistic steering process of school development.

The Curriculum Framework describes the school's educational mandate for this demanding process. In part this mandate is included in many state curricula, but perceived differently in schools. It needs to be structured to cope with fundamental processes of globalisation and to comply with claims for a cross-curricular Education for Sustainable Development.

The important points of orientation for the elaboration of curricula are:
- the eleven core competencies of the learning area (chapter 3.5)
- the related partial competencies of school subjects (chapter 4)
- the thematic areas (chapter 3.6).

The sample topics for various subjects in chapter 4 offer suggestions for linking themes with competencies. The Framework however, with its core competencies, partial subject competencies, thematic areas and subject-related sample topics must not be seen as a model for Global Development Education/ESD. It provides orientation and criteria-supported options for the creation of such regulatory instruments.

The purpose of school curricula is to steer the appropriate acquisition of core competencies for Global Development Education/ESD in the successive years/grades. They guarantee the participation of as many school subjects as possible, the inclusion of meaningful topics from a number of thematic areas and the construction of basic knowledge. A grid for the display of selected topics, which shows competencies and thematic areas of the learning area (chapter 3.6), gives the needed overview for curricular planning. Particular attention is to be given to the transition from one level or school form to another.

The Curriculum Framework facilitates the definition of obligatory requirements which the school has to define for Global Development Education/ESD, unless they are already set by ministerial plans/curricula. Sample tasks or sample lessons (see chapter 4) are a helpful tool for demonstrating the requirements regarding the availability of competencies. The schools are recommended to agree internally on specific comparison tasks which can help to verify how far the desired competencies have been acquired, and which can give hints for further curriculum development.

In many cases, internal school curricula are contructed step by step for partial curricula. Here, at an early stage, the mutual coordination and the special role of comprehensive basic competencies have to be observed.

The guideline "Auf dem Weg zum schulinternen Curriculum" (On the path to an internal school curriculum) by the Hamburg Institute for Teacher Training and School Development (2011) recommends to develop an internal school curriculum as a sequence of teaching/learning units: "A teaching/learning unit lasts about four to eight weeks. It is devided in different stages and methodological arrangements, and it generally includes a structured pool of work material, media, teaching information etc. for all teachers."[99]

The advantage of elaborated, well-tried and successively enhanced teaching/learning models compared to mere curricular competency targets and topics for certain grades is apparent. For the design of such teaching/learning projects, which – taken together – constitute the school curriculum, the collective didactic competency and experience of the school is used and cooperation among the actors supported. For the teaching/learning projects of Global Development Education/ESD the following aspects are essential apart from the observation of general didactic principles:
· complex questions and problems which orient at the challenges of Education for Sustainable Development
· a wise coordination of these thematic contents with the development of competencies.

99 Landesinstitut für Lehrerbildung und Schulentwicklung, Hamburg (2011), p. 15

While it seems obvious that the participating school subjects are selected according to the development dimensions (economy, Social Affairs, environment, politics) of the given topic, the selection should not be schematical (additive) in order to respect the coherence of these target dimensions of sustainability by not treating them as purely subject specific. The integrative view on the problem and its possible solutions expected from the students has to be effected by the participating subjects as well.

For the development of a school curriculum which emerges from well-tried teaching/learning projects only general recommendsations can be given. They have to be substantiated or amended by the particular condition of each school.

Internal school curriculum Decisions needed	
Basic agreements	**Didactic guidelines** · **Project or project-like forms of learning** · **Orientation at the principle of sustainable development** · **Self-organised learnig in heterogeneous groups** · **Product-/open result orientation** (to let the students experience a growth of their competence) · **Strengthening/development of core competencies in all three competende areas** (Recognising – Assessing – Acting)

Internal coordination	· **Leading topics:** relevant and motivating questions/problem solving tasks posed in agreement with the students
	
	· **Forms of organization:**
	  – project weeks/project days
	  – interdisciplinary (mostly by 1 teacher with dual qualification)
	  – subject-linking (2 to max. 3 subjects, if possible in lesson blocks, e.g. 3 days a week)
	
	· **Definition of competencies to be developed in teaching/learning units**

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4 Implementation in school subjects and learning areas

4.0 Introduction and overview

Jörg-Robert Schreiber

The Curriculum Framework for Education for Sustainable Development is targeted at the improved coordination of school subjects and at aligning them – together with other school specific key aspects (see chapter 5) – with the principle of sustainable development. Bearing in mind that there are already many (often hardly interlinked) approaches at schools this target addresses the principle *from project to structure*[100] of the national action programme following the UN decade of Education for Sustainable Development (2005–2014).

The second (extended and updated) edition of the Framework is based on the first edition (2007) and uses the experience of its implementation. It expands the scope of included school subjects, defines relevant thematic areas, competencies and performance requirements for the final certification of Secondary School Level I which may also serve as foundation for the extension into Secondary Level II.

The following requirements for school subjects remain unchanged:
- to demonstrate their contribution to Global Development Education/ESD as well as the connectivity of their concepts,
- to assign their partial competencies to the eleven core competencies of Global Development Education/ESD,
- to suggest lifeworld related or context-bound sample topics for thematic areas of the Framework.

Despite important developments, the chapters on Political Education, Geography, Religion/Ethics and Economics as well as the recommendations on Vocational Education remain unchanged, whereas guidelines for orientation have been included for eight new subjects. Due to the dynamics in the field of primary education the text on Global Development Education/ESD for this level has been revised.

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[100] The German National Committee for the UN Decade of Education for Sustainable Development (2013): Position paper "Strategy for ESD 2015+" (http://www.bne-portal.de/sites/default/files/BNE-Positionspapier-2015plus_deutsch.pdf, 27.10.2016)

School Subjects and educational fields included in the Framework

	new/updated in the 2015 Framework	chapter	taken unchanged from the 2007 Framework	chapter
	Primary school (Sachunterricht and further subjects)	4.1		
Field of lang./liter.-arts	**German**	4.2.1		
	New Foreign Languages	4.2.2		
	Fine Arts	4.2.3		
	Music	4.2.4		
Social science field of activity	**History**	4.3.3	Political Education	4.3.1
			Geography	4.3.2
			Religion/Ethics	4.3.4
			Economics	4.3.5
Activity field of mathematics – natural sciences – technics	**Mathematics**	4.4.1		
	Natural Science (Biology, Chemistry, Physics)	4.4.2		
	Sports	4.5		
			Vocational Education	4.6

Sample lessons and sample tasks

The first edition of the Framework focused on presenting sample tasks in order to legitimise the contributions of specific subjects. These sample tasks were assessable and based on the introduced competency model. During the implementation process the necessity became apparent to offer sample lessons as practical help for a competency based education. Hence,

by offering a competency-based lesson draft and a competency grid, the new subject contributions try to comply with the demand for examples demonstrating the connectivity of the thematic objectives with the development of competencies in Global Development Education/ESD and the possibility to align performance requirements and evaluations with different levels of the desired competencies.

For specific grades (forms, years) 3–5 specific competencies on three requirement levels have been defined for a selected topic in these sample lessons. These competencies are to demonstrate how age-specific and topic-related competencies (which connect via the competencies of school subjects to ESD core competencies), are linked with thematic contents and acquired in the learning process. This approach is to demonstrate the differentiation of competency levels which usually remains the task of lesson designs.

Tasks have different functions within the learning process and for the steering of educational processes. The contributions in the first edition of the Framework (2007) demonstrate the performance requirements in competency based lessons and tests. The sample lessons in this second edition are meant to show how competency based lessons can be designed.

As a general rule, tasks should contribute to have students experience their competency. Conceptually, they tap proposals that have been increasingly offered since the first PISA results on the development of a culture of learning tasks and which are still valid[101]. Here we have to take into account whether they are tasks in the context of learning units or – as the following nine items – within tests/examinations:

1. In any case tasks deal with **complex** (choosing from alternative options) and (individually and socially) **meaningful** tasks/problems.
2. Their (not too small/not fragmented) parts relate to **core competencies and subject-related competencies** of the Framework which have to be indicated. It makes sense to select several competencies as long as the focus is obvious. Taken together, all parts of the tasks should cover competencies from all competency areas (Recognising – Assessing – Acting).
3. The **selection of topics** follows the criteria of the Framework (chapter 3.6).
4. With the help of a **"horizon of expectations"** for each (sub)task a precise performance assessment is possible. The definition of performance requirements starts with the levels of the selected competency which can be precisely defined by referring to the thematic content of the task.
5. **Written tests/examinations** take all three **fields of requirement (FoR)**[102] into account while the focus is usually on FoR II. The assignment to FoR I–III is given for each task.

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[101] The presented principles partly follow a synopsis of M. Colditz, LISA Halle.
[102] **FoR I: Reproduction** (reproduction of facts from a well-defined area of a studied context, exclusively using learned techniques)

6. Tasks to solve problems should be limited to **a few subtasks,** which are not given in the form of questions but as an assignment. This means that they are usually introduced with clear **signal words (operators)**[103] which are oriented at the respective competencies or FoRs.
7. Subtasks are linked by a **common content reference to a topic**. However, in written tests/examinations they must be structured in a way that errors in one part do not result in erroneous or unsatisfactory solutions of the following tasks.
8. They consider the **diversity of task formats** (open – half open – closed) and **social types of tasks**.
9. The extent/amount of **materials given** with the tests/examination tasks should be strictly limited. They should be as diverse as possible (different text forms/photos/cartoons/maps/graphs/statistics) and must be essential for working on the task.

Wherever **written examinations** are used in Global Development Education/ESD these principles will give orientation. They differ from the requirement levels of the **sample lessons** in chapter 4 which are defined for the acquisition of specific competencies. The three-level grading in the competency grids of these examples does not follow the FoR-levels I–III but the available degree of a competency.

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[103] **S**ignal words/operators:
  FoR I: name, list, describe, present, reproduce, arrange, summarize
  FoR II: investigate, determine, structure, allocate, explain, clarify, compare, relate, analyse, characterise, identify, check, illustrate, formulate, produce, develop, construct
  FoR III: justify, prove, judge, evaluate, interpret, derive, conclude, discuss, argue, com ment, design, draft

4.1   Primary school

Rudolf Schmitt

4.1.1   Contribution of primary school subjects to Global Development Education/ESD

The institutional conditions of the primary school are favourable for the implementation of the Curriculum Framework for Education for Sustainable Development: The school subject Sachunterricht includes many ESD contents, and the form teacher principle with a varying combination of subjects facilitates cross-curricular and project oriented education.

Of cause, Religion and Ethics as well as German and subjects like Arts, Music, Sports, Textile working and other handicrafts should also participate in its implementation, just as Mathematics, which can also be included in the cross-curricular or subject-linking education of Global Development Education/ESD.

Contents of Global Development Education/ESD in primary schools
The topics of Global Development Education/ESD covered by the subjects in primary school curricula can be grouped:
- socio-cultural and natural diversity in the pupils` environment,
- socio-cultural and natural diversity in other countries and societies,
- global connections of the pupils` lifeworld and society.

The choice of these topics are justified by the competencies which pupils need for their life in a globalised world. In an age-appropriate way, they orient towards the principle of sustainable development and grapple with the question what children can do for their sustainable future and how they can live together in peace and solidarity. The competencies that should be acquired by the end of year four are clearly connected to these contents:

Living together and contributing to a sustainable society

This includes all thematic statements in primary school curricula which relate to living together in school, family and neighbourhood: Children from all ways of life and their families, games, competition and conflict, fair conduct, relationship between boys and girls, languages, religions, festivals, songs, theatre, dance, excursions and explorations.

Living in other countries

- Orientation on globe and world map
- Finding out how kids play, learn, dwell and celebrate in other countries
- Finding out how people in other countries live and work

- Learning to know and appreciate different lifestyles
- Living in the city and in the countryside
- Wealth and poverty in the world
- Animals, plants and landscapes

Interconnections between here and elsewhere: Our shared responsibility for the future

The importance of this thematic approach is increasing. The global interconnection of living conditions and environmental problems is illustrated with topics like:
- Climate change: causes, consequences and options
- Alternative ways to generate energy
- Commodities from all the world and at any time
- Destruction and protection of biodiversity, forests and natural habitats
- Water as basis for life
- Human rights and children's rights

Global Development Education/ESD in childhood
The necessity to include the topics of dynamic global change and rapid transformation of the children's lifeworld in early education – in part even at pre-school age – is undisputed today. Some basic principles should be followed:

The selection of the concrete topics should be guided by the principle of "social proximity", which offers links between hitherto unknown, extremely different and seemingly remote conditions and the experience the child has already made. When looking at the differences, definitely the commonalities and all that we have in common must be kept in view. Exoticism and crass forms of misery, hunger and diseases may never be misused purely for the sake of making an impact.

Autonomy, critical ability, cooperation and solidarity in conduct can only be developed by children who are confronted with real-life problems. The topic "child work" is suitable to sharpen the children's view on acceptable but also on unacceptably destructive workloads. Here, the confrontation with serious problems asks for the joint search for possible solutions.

When kids come to school they always bring with them certain opinions and world views. Hence, it is part of the pedagogical tasks of teachers to challenge preconceptions and world views and to irritate in order to support a readiness for autonomous recognition and evaluation.

Global Development Education/ESD is less about imparting knowledge than about activity-oriented learning processes in projects, role plays and encounters. We recommend the introduction of a figure of identification for events and information. The children's book "Aminatas Entdeckung" (Bulang-Lörcher, M., Große-Oetringhaus, H.-M. 2006, 6. Aufl. ; in German) featuring a Senegalese girl is an example.

4.1.2 Primary school competencies at the end of year 4 with reference to the core competences of Global Development Education/ESD

Pupils are able to (…)

	Core competencies	Specific competencies year 4
Recognising	**1. Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.	1.1 (…) take and process information from the presented sources on the life situation of children and their families in Germany and other countries.
		1.2 (…) take news and photos from the daily media on current events in Germany and other countries, with appropriate help/guidance.
		1.3 (…) produce simple tables and graphs on development issues and compare results.
	2. Recognising diversity (…) recognise the socio-cultural and natural diversity in the One World.	2.1 (…) realise and describe different and similar life situations of children and their families in different countries depending on the socio-cultural conditions.
		2.2 (…) realise and describe different and similar life situations of children and their families in different countries depending on the environmental conditions.
	3. Analysis of global change (…) analyse processes of globalisation and development by using the concept of sustainable development.	3.1 (…) use examples to analyse the change of children's life situations with respect of the socio-economic conditions.
		3.2 (…) use examples to analyse the change of children's life situations with respect of the environmental conditions.
	4. Differentiation between levels of action (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	4.1 (…) recognise wishes and chances to realise them depending on the respective life situations.
		4.2 (…) compare children's wishes and their realisation chances in different countries.
		4.3 (…) use examples to research and present the product cycle of age-appropriate consumer articles.

	Core competencies	Specific competencies year 4
Assessing	**5. Change of perspectives and empathy** (…) realise, appreciate and reflect upon own and others' values and their significance for life.	5.1 (…) elaborate and articulate own values, with regard to the discussion of unfamiliar value orientations.
		5.2 (…) research and compare the historical roots of the own and a hitherto unfamiliar value orientation.
		5.3 (…) take into account the basic general conditions and value assumptions for the proposal of solutions for difficult life situations.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) form an own opinion about conflicts: What are the root causes? Who is egoistic? What is unfair? What would be fair/just?
		6.2 (…) use case examples to study which children's rights are violated and comment on that.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) judge less complex development projects as either sustainable or rather unsustainable.
		7.2 (…) judge examples of the use of natural resources as either sustainable or rather unsustainable.
		7.3 (…) recognise and assess the different interests with respect to development projects and the use of natural resources.

	Core competencies	Specific competencies year 4
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) develop a sense of solidarity from the knowledge about different life situations of children here and in other parts of the world.
		8.2 (…) show that it is important and meaningful to act in an environmentally conscious way in one's own environment.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	9.1 (…) collectively plan and perform an action with other children.
		9.2 (…) strive to get in contact and to understand children who speak other languages.
		9.3 (…) participate with own contributions in exchange programmes within school or class partnerships.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and to bear open situations.	10.1 (…) develop possible solutions for difficult life situations and check them critically, e.g. in role games.
		10.2 (…) develop and justify own approaches of environmentally sustainable behaviour.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) propose and justify actions against realised social problems.
		11.2 (…) propose and justify contributions to the solution of environmental problems.

4.1.3   Sample topics

The following sample topics for learning units or projects do not claim to present content priorities. They are obvious or practically proven topics that illustrate the possibilities to acquire competencies of the learning area.

Thematic areas	Sample topics	Competencies*
1 Diversity of values, cultures and living conditions: Diversity and inclusion	How do children live here and in another country? Christianity and Islam Child labour/work here and in developing countries	**1.1**, **2.1**, **2.2**, 4.1, 4.2, 5.1, 5.3, **8.1**, 9.1, 9.2 1.3, 2.1, 3.1, 4.2, **5.1**, **5.2** 1.2, **2.1**, **3.1**, 5.3, 6.1, 6.2, **7.1**, 7.3, **8.1**, 10.1
4 Commodities from around the world: Production, trade and consumption	Cocoa and chocolate Footballs made in Pakistan	**1.1**, **1.3**, **4.3**, 7.1, 7.2, 7.3, 8.2, 10.2, 11.1, 11.2 1.1,1.2, **2.1**, 3.1, **4.3**, 6.2, 8.12,10.1, **11.1**
5 Food and agriculture	Water as basis for life	**1.3**, **2.2**, **3.2**, 5.3, 6.1, 7.1, **7.2**, 8.2, 10.2, 11.2
6 Illness and health	Baby food	**1.1**, 2.1, **3.1**, 4.3, 6.1, 7.1
7 Education	School here and in other countries	**1.1**, **2.1**, 3.1, **4.2**, 5.3, 6.2, 9.2
8 Globalised leisure-time activities	Holidays in other countries	2.1, 2.2, **4.1**, **5.1**, **7.3**, 8.2, 9.2
11 Global environmental changes	Air pollution, climate change, destruction of rain forests	**1.2**, 2.2, **3.2**, 5.3, 6.1, **7.2**, **7.3**, 8.2, **10.1**, 10.2., 11.2
13 Globalisation of economy and labour	A t-shirt is travelling	1.3, 4.1, **4.3**, 6.1, 7.1, 7.3, 8.2, 1.1
16 Peace and conflict	Children on the run	**1.2**, 2.1, 6.2, **8.1**, 9.2, 10.1
18 Political rule: Democracy and human rights	Children's rights: Global Children's Summit	2.1, 3.1, 4.2, **6.2**, **6.3**, 8.1, 10.1
19 Development cooperation and its institutions	UNICEF's global work	2.1, **3.1**, 4.2, **8.1**, **11.1**
21 Communication in a global context	Email contacts to children in the Global South	1.1, 2.1, 2.2, 4.2, 5.1, 9.2, 9.3

*   Competencies that can be acquired or strengthened (see chapter 4.1.2); main emphasis in bold

4.1.4   Competency-oriented learning unit: Seeing new ways (…)

The learning unit *Seeing new ways* (…) was selected because it combines several advantages which are important for Global Development Education/ESD in primary schools.[104] It connects – what is usually possible in primary schools – the subjects Sachunterricht, German and Arts, and shows how topics can be simultaneously taught in different years. Via Email exchange, even primary school pupils can cooperate across national borders and between continents. One of the most important competencies of Global Development Education/ESD is in the focus: changing the perspective.

Here the ways to school become important fields of learning and experience.[105] Children go to school, either alone or accompanied, on foot or by bike, by bus or underground, or they are taken by car; they always make new experiences, have different views on landscapes or cities, and they encounter all kinds of different stimulations and risks while they are on their way to school. Sustainability issues are on the wayside and can easily be referred to, without even having to use complicated terms and concepts.

Competency grid
This learning unit is essentially meant to enhance the core competencies 1, 2, 5, 8 and 9 (see chapter 4.1.2). The attainment levels 1–3 in the overview give help for performance evaluations and feedback. The higher requirement levels reflect a higher level of self-reliancy.

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[104] In 2012 it was rewarded the first prize in category Class 1–4 at the 5th contest of the Federal President (on the topic "Schule bei uns und in anderen Ländern" – "School here and abroad"). In this case, four German and one Ugandan school had participated in the project. See Dausacker, G.; Hoffmann, S.; Hülshoff, A.-Ch.; Roth, M. (2012), p. 6–11
[105] See the French documentary "On the Way to School" (Pascal Plisson 2013), featuring 11-year old Jackson from Kenya, 12-year old Zahira from Morocco, 11-year old Carlito from Argentina and Samuel who is living on a beach at the Bay of Bengal; the film accompanies the four kids on their ways to their schools

Specific competency of the learning unit	Primary school competency	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
Pupils are able to (…)				
1. (…) obtain information about their way to school.	1.1 2.1 2.2	(…) obtain – with assistance – basic information about the way to school, and present them.	(…) obtain – in a widely self-reliant way – important informa-tion about the way to school and present it correctly.	(…) self-reliantly collect information about their way to school and present it clearly and correctly.
2. (…) reflect and comment on characteris-tics of different ways to school for the respec-tive kids and for themselves.	5.1 5.3	(…) contemplate, with appropriate guidance, about different ways to school, with reference to themselves and other kids.	(…) reflect, in a widely self-reliant way, about different ways to school – with reference to themselves and to other kids – and clearly present these thoughts.	(…) self-reliantly and clearly think about different ways to school – with reference to themselves and to other kids – and comment these thoughts.
3. (…) understand the characteristics of ways to school and their significance for themselves and other kids, and present them as an artwork.	8.1 8.2	(…) participate in a guided discussion about the advantages and disadvantages of different ways to school, and present them as an artwork.	(…) discuss – in a widely self-reliant way – the advantages and disadvantages of different ways to school, grasp their significance and present them as an artwork.	(…) self-reliantly (e.g. in small groups) discuss the advantages and disadvantages of different ways to school and their significance for the kids, and present their perceptions artistically.
4. (…) actively participate in Email exchange about a learning project.	9.2 9.3	(…) engage in a guided digital exchange with other participants of the project.	(…) digitally exchange information with the other project participants in a widely self-reliant way.	(…) self-reliantly and specifically communi-cate with project participants by Email.

Course of the project

The project needs organisational forward planning in which
· the number of participating classes (possibly from different years) is determined,
· appropriate periods for the realisation are determined,
· contacts are made and coordination with other schools (possibly also from other parts of Germany and from abroad) takes place,
· the technical preconditions for Email exchange are clarified.

1. Step: My own way to school

All pupils are asked to explore and reflect on their own ways to school: How long does it take? How do I get to school? What do I see on the way? Which ordinary and special incidents could I witness on my way to school? What do I especially like? What do I dislike? Are there any special smells or sounds? Are there any dangers, what do I have to take care of? etc.

Some ways to school are made by the whole class. All pupils draw a picture of their way to school and write short description.

2. Step: Exchange of school way pictures

From all pictures and descriptions the pupils select an example that they think typical of their way to school. They send them by Email to all participating school classes. So all pupils receive meaningful information about different ways to school.

3. Step: Commenting the ways to school

Then the pupils comment the school way pictures of their project partners and compare them with their own ways. They talk about what they have noticed, what seems interesting or strange to them etc. and write it down (preferably in different colours so that later the comments can be distinguished from the descriptions of the ways). They discuss the possible influence of different ways to school or the possible impact of those ways on their life. At this stage environmental issues can be included like the daily ride to school in the parents' car.

The comments are summarised for each class and sent by Email to all participating schools.

4. Step: Creative work with the pictures and comments

At this stage, the participating classes get the task to artistically design the information about the ways to school, on cubes (40 cm × 40 cm). In the following example five classes (including the own) participate in the project – variations are possible. In this case, we have 36 square pages per class that have to be designed. For each cube we have the same title page, e.g. "Seeing new ways (…)". From the pictures and comments of the participating 5 classes, 30 cube faces are produced. Each of the participating classes is represented once on each of the six cubes. The five faces that have to be designed can also be assigned to selected aspects of the ways to school, e.g. route, landmarks (buildings, trees etc.), dangerous spots, frequently met people or animals, most beautiful places, ugly places; here the children can either select picture or comment faces of the cubes. All cube faces will be laminated (so that the colours start shining and the cube becomes solid and washable), pierced and joined.

The contact with the other classes, by Email or Skype, should continue during this stage, because new questions may arise while the pupils are designing the cubes.

photo: Engagement Global gGmbH

Final phase: Changing the perspective

At the end, each of the participating classes (in this case five) has a set of (six) attractive cubes with the whole range of pictures and comments of all classes.

The pupils can play with their cubes, build structures with them and test the change of perspectives which they had already learned during the project:

· The cubes can fall randomly: Which ways to school are shown?
· Which comments belong to which ways to school?

4.1.5   Performance monitoring and learning-progress interviews

The continuous supervision of the pupils on the background of the desired specific competencies and the dialogue with them are the foundation for the assessment of the pupils' performance. This is meant to successively enable them to realistically evaluate their own performance in relation to the aspired targets.

The dialogue with the pupils gives the teachers important hints about the lessons' effectivity and enables them to design the next lessons in a way that individual advancements are possible.

The changing learning arrangements with different activities offer many possibilities and reference points for performance assessments. The arrangements have to be harmonised with the principles and criteria of the participating school subjects and the pupils' development. Apart from the selected specific competencies, interdisciplinary fundamental competencies have to be developed at each learning stage. In the proposed learning unit, self-reliancy, cooperative behaviour in partner and team work, listening and responding to questions and considerations of classmates as well as reflection skills can be developed. Apart from the conduct in discussions, autonomously found solutions in the presentations allow to draw conclusions about the already acquired and enhanced competencies. Other possibilities are thematically-related tasks that the pupils have to solve individually at the end of the project. The evaluation criteria are based on subject-related and interdisciplinary requirements, but most of all oriented at the levels of the competency grid for the learning unit. Here not only the absolute achievements are relevant but also the individual learning progress. It is important for the performance-feedback in the learning-progress interviews to **refer back to the competencies aimed at**, which the pupils should be rudimentarily informed about at an early stage.

4.1.6　Practice material

Further practical examples for the primary school can be found on the central portal www.globaleslernen.de and particularly in the journal "Eine Welt in der Schule".[106]

The *following* sample units (presented and tested by the authors) and material of the Bremen based project "Eine Welt in der Schule" are results of nationwide teacher training conferences on the *Orientation Framework for Global Development* (2007).

Journal 2/2008 Emma's Chocolates, 4th class (H. Kiehlmann, G. Berszin)
The school that hosted this project is in a rural area of East Frisia. The class has 15 children. The next Fairtrade shop is in the city centre, about 5 km away. The children`s book "Emmas Schoko-Laden" (Emma's Chocolate Shop) by Stephen Sigg was used as access and accompanying reading material. In the project, the children became familiar with the aims of Fair Trade and the work of cooperatives in cocoa growing areas – particularly in Bolivia. This included information about the cultivation, harvest and selling of cocoa as well as the production and marketing of chocolate. The selected start of the project was around 10. 11, because this was the time of the traditional "Martinisingen" in our region, in honour of Martin Luther. The children always receive many sweets as reward for their singing, also many chocolate bars.

Journal 4/2009 Welcome to Accra, Ghana (support-class 4, Barbara Bonney)
My teaching project about everyday life of kids in Ghana should be as optimistic as the title, which is not self-evident. There are many media reports on children in Africa that draw a picture of famine and drought. My teaching project was meant to reflect the many questions that children have always been asking me about children's life in my country of origin. Ghana is just one of 55 African states. Its self-image is to be a totally African country, but it cannot be seen as representing this continent.

Journal 2/2009 This is how the world eats (class 1–6, C. Mesenholl)
I teach life skills (Lebenskunde) at a primary school in Berlin's district Treptow Köpenick. Life skills education in Berlin is an optional value oriented subject within the range of primary school subjects, and hence it is something special. Presently, more than 40,000 pupils of the six primary school grades participate in these one to two additional teaching lessons. On average, the groups have 8–16 pupils, a size which supports a student oriented methodology and topic selection. Our project is about: Perception of oneself and of others, learning about the own and other traditions, festivals, customs, rituals and conventions in connection with food and eating. It offers an optimal field for learning with all senses and for becoming aware of scarcity and abundance. This is a real fountain of material for life skill teaching, because eating/food is more than just the supply of our body with nutrients!

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[106] Download free of charge: www.weltinderschule.uni-bremen.de, 27. 10. 2016

Journal 3/2010 A morning in India (class 3, J. Sonntag)

I am a form teacher in a 3rd class in Hamburg-Wandsbek. For two years we have been in contact with a children's home in India, arranged by Karl Kübel Foundation. Once or twice a year, German and Indian pupils cooperate in a joint project. The project "How do children live in India?" was meant to help German pupils to experience a morning at school from the point of view of Indian kids, and so to overcome the notion of seeing hardly more than poverty. At the same time, I wanted to check which contents and organisational forms would be best for the lessons. Hence, the topic is not: "Today we are learning something about India", but "Today is a totally ordinary school day at an Indian school".

The topics are:
- Hindi: Reading, writing and speaking selected signs
- Mathematics: Access to and use of the numbers 1 to 10
- Religion: Exemplary learning about Ganesha, one of the Hindu goddesses
- Arts: Becoming familiar with kolams as lucky symbols and design them

Journal 2/2011 Project week "How do children live in Brazil" (class 3+4, A. Hübler)

The slogan of the project week was "A ball is rolling around the world". The children could select from 22 topics. The afternoon of the last day ended with a school party and with presentations of the projects. The children's book "Wir leben in Brasilien" (We live in Brazil) from the series "Kinder der Welt" (Children of the world) helped with the lesson planning. The football world championship was in sight, and Brazil is well-known as a great football nation with many football projects that fascinate street children. In the book, the pupils can meet three Brazilian kids from different backgrounds. They became aware that the children's life has many things in common with the life of kids in Germany, but that there are also fundamental differences. In addition, I used material from the "Brazil travel case" ("Reise-koffer Brasilien", Welthaus Bielefeld).

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4.2 Secondary Level I: Field of language, literature and arts

4.2.1 **German**

4.2.2 **New foreign languages**

4.2.3 **Arts**

4.2.4 **Music**

4.2.1 German

Ingelore Oomen-Welke, Heidi Rösch , Bernt Ahrenholz

4.2.1.1 Contribution of the subject German to Global Development Education/ESD

Language is a medium that has always been used by people in groups to cooperate, to learn from one another, to make others do something or to express their mental state or aesthetic feelings. This is still true nowadays. It implies that these possibilities can also develop negative aspects: to deceive, to con or to misuse someone, to disguise harmful things aesthetically. Hence, the topics of Global Development Education/ESD also deal a lot with language.

People can learn other people's languages, but they can also try to suppress other languages. We use language(s) within groups and between different groups, as an example you can study how European countries behave towards their former colonies' languages. In German lessons the use of language is studied and reflected so that the students learn how to recognise and evaluate the helpful and harmful aspects of the use of language. In order to evaluate the own use of language and the own language system it can be compared to other language options. To compare means to actively handle the own and other languages; it means to act and it changes attitudes.

The German language is analysed in its different (regional and social) varieties. For many years, German as a second language has been gaining importance for language didactics because it is the domain of language promotion and also the access to real multilingualism in German-speaking countries. Furthermore, in view of "German in the world" German as a second language should also focus on the use of German in other countries (as a second or foreign language) and as a key for global communication. Other languages, of course, also deserve respective considerations.

The subject German plays a role in the context of global migration; immigrants learn German as a second language after having learnt their mother tongue. The second language can become their main language which they use most often which they prefer. Many people grow up bi- or multilingually. The ways how languages are learnt or used are not clearly separated but overlap. At the same time German is the basis for oral and written communication in other school subjects; speakers of German as a second or foreign language often compete with monolingual speakers of their native language who often feel superior even if they don't need to be so. But mutual acceptance and respect are permanently needed and have to be strengthened during school education.

For the didactics of German, the German language is, according to the 2003 and 2004 KMK educational standards, *teaching principle* as well as *medium* and *subject*. The German language is *teaching principle,* because normally communication in all school subjects (except for the foreign languages) is in German. It is *medium* because people use it in their group in order to cooperate (see above). As language of education German is also the *medium* for

transmitting school knowledge and knowledge of scientific disciplines by specific linguistic means. It includes elements of scientific conversation which enable a meaningful communication of complex contents in sophisticated contexts. In the form of context free text types, like *description, report, explanation, presentation, interpretation, comparison, discussion* (…), it goes beyond the everyday use of language. German as educational language (Bildungssprache) is oriented at written forms of expression, even if the language is used orally (in presentations, in many school contexts). Oral cultures transform the oral language into an educational language with oral text forms like storytelling and negotiating. German is *subject* because German and other languages and their use are investigated and reflected in German lessons (see Oomen-Welke; Rösch 2013).

For a long time there have been proposals to transgress the traditional limits of the school subject German, and this is what the 2003 and 2004 educational standards expect:

- Bilingual texts, particularly from the so-called migrants' literature or literature from countries hitherto outside the European educational horizon, are to be included as educational content. Apart from the selection of texts it is about understanding or testing the literary use of methods of a postcolonial discourse like the change of perspectives, culture-historical reflection, deconstruction of power structures and mixed forms of language (hybrid languages such as "kreol" or "pidgin").

- The use and the system of the German language are investigated and reflected in constant comparison with other languages. This includes varieties within the own language area, the foreign languages at school, the family languages of multilingual students, all languages of the world – from different pragmatic, structural and idealistic points of view. Furthermore, historical aspects (like change of meaning, borrowing) are important educational topics. The objective of this linguistic work is a fair judgement instead of narrow-minded national or even racist ideas of languages and people.

- Theme of language teaching is the investigation of specific ways of communication (spoken languages as well as sign languages, written languages including braille) in different varieties of German and – as far as possible– in other languages. It includes aspects of intercultural and inclusive communication.

- German is the language for communication in school subjects (*medium* and *principle*). This opens the above mentioned perspective towards German as an educational language (medium for teaching and acquisition of knowledge) and produces concepts like linguistically sensitive subject teaching (sprachsensitiven Fachunterricht). German as a foreign language in the world is a topic which addresses the dissemination of the German language, the motivation to learn German as a foreign language as well as the economic and cultural benefit and value. Young people's global communication via media and sometimes also in direct encounters often have specific linguistic aspects. In bilingual education of specific subjects and in *content and language integrated learning* CLIL bridges between technical and foreign languages are being built, which is also beneficial for language on the job.

These approaches can serve to find new intercultural contents and forms of learning within Global Development Education/ESD by using other/foreign languages and literatures, sign languages, and literary, pragmatic and specialised texts. These new contents and learning forms may contribute to a critical and fair discussion and to cooperation among different cultures and ways of life in the world. They also enable contacts nearby or over a distance, via direct encounters or media. Thus, the connection to cross-curricular work is possible because linguistic work is often bound to extra-linguistic contents in other school subjects. Vice versa, literary texts reflect concepts of the world, of people and labour, of locations and non-locations, images, imaginations, hopes and sustainability.

The subject German picks up the principle of sustainable development by focusing on global developments – with regard to the selection of texts as well as the used media and the topicalisation of language. The change of perspectives helps the students to acquire knowledge for orientation and action which itself is helpful for the acquisition of a competency of understanding and communicating globally. This competency will be enhanced and deepened in foreign languages.

4.2.1.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

The following partial competencies are the bridge between Global Development Education/ ESD and the school subject German. They correspond to the KMK standards (2003 and 2004) and especially to the competency area *language and usage: Use language as a means of understanding, acquire specific knowledge, reflect on the use of language* and *understand its system, use multilingualism (students with another original language and foreign languages) for the development of linguistic awareness and the comparison of languages* – but they also extend to the other competency areas.

The students are able to (…)

	Core competencies	Subject-related competencies (German)
Recognising	**1. Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.	1.1 (…) find information about languages (e.g. in dictionaries and in the internet), localise languages and identify numbers of people speaking the respective languages.
		1.2 (…) research about European and non-European literature which is wide-spread or less popular and about global dissemination ways of literature.
		1.3 (…) obtain information about German as a foreign language in the world.
		1.4 (…) research on specific fields of language usage and on the change of languages.
	2. Recognising diversity (…) recognise the socio-cultural and natural diversity in the One World.	2.1 (…) realise and describe different manifestations and applications of multilingualism.
		2.2 (…) notice role models in languages and literature (e.g. social roles, courtesy in everyday discussions, language of diplomacy, political speech).
		2.3 (…) differentiate between culture-bound, intercultural and migration-related forms of communication.
	3. Analysis of global change (…) analyse processes of globalisation and development by using the concept of sustainable development.	3.1 (…) research language rights of language minorities and the linguistic rights of migrants.
		3.2 (…) research the status of global languages and of less common languages.
		3.3 (…) research and present concepts of the "new" world literature.
	4. Differentiation between levels of action (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	4.1 (…) realise and differentiate between individual factors, group pressure and social expectations with regard to the selection of languages in complex situations.
		4.2 (…) allocate external ascriptions and culturalisations in real-life situations, texts and media to different levels of activity.
		4.3 (…) give examples for intercultural communication and conflict management on different societal levels of action.

	Core competencies	Subject-related competencies (German)
Assessing	**5. Change of perspectives and empathy** (…) realise, appreciate and reflect upon their own and others' values and their significance for life.	5.1 (…) compare the content of words and phrases in different languages and realise the different perspectives.
		5.2 (…) realise sentence and text patterns in the own and in other languages and understand their functions.
		5.3 (…) analyse and assess literary plots/story lines form different cultural perspectives and contexts (e.g. power constallations).
		5.4 (…) understand and positively deal with the fact that in communication and literature language is often perceived and interpreted differently, due to different traditions.
		5.5 (…) become aware, by the example of translations, of the challenges for our empathy and perspective change with regard to the understanding of languages.
		5.6 (…) find exotic clichés in advertisement and advertising language and assess their exploitation to trigger purchase impulses.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) reflect, compare and assess the usefulness of linguistic expressions, e.g. internationalisms, idiomatic expressions, journalistic texts and advertisements.
		6.2 (…) present with arguments functions, limitations and potential of minor languages and argue in favour of language rights from the perspective of language minorities.
		6.3 (…) elaborate cross-culturally references to global development issues in literature.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of their world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) come to an own assessment of the dualism of global and minor (local) languages and of measures to support or protect them.
		7.2 (…) use examples to get an idea how media and literature in European and non-European countries present central development issues of global change.
		7.3 (…) get an overview of literacy programmes and comment on the success of global programmes like *Education For All* (EFA).

	Core competencies	Subject–related competencies (German)
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) show understanding for learners of German, respect multilingualism and work for its acceptance.
		8.2 (…) respectfully and positively contribute to the communication and cooperation of people with different language backgrounds.
		8.3 (…) openly deal with perspectives of migrant literature.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	9.1 (…) be supportive in discussions dominated by conflicting views, and contribute to mutual understanding.
		9.2 (…) help to mitigate language-related conflicts.
		9.3 (…) counter (verbal) attacks on speakers of other languages, and try to mediate
		9.4 (…) discuss culture and language related conflicts in literature and look for consequences in respective everyday situations.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and to bear open situations.	10.1 (…) positively shape contacts between people from different lifeworlds, in direct encounters or via media communication, and get an idea about the possibilities of exchange programmes.
		10.2 (…) communicate, in German and other languages, with learners of German in other parts of the world about views on issues of global change and connected individual challenges.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) work for objectives of sustainable development, in the context of school projects, school partnerships, during stays abroad or in language tandem programmes.
		11.2 (…) argue for a fair award of film and literature prizes by critically analysing them.
		11.3 (…) argue in discussions for the protection of human rights and for sustainability.

4.2.1.3   Sample topics

The following thematic areas of Global Development Education/ESD (see chapter 3.6) are especially relevant for German lessons: *Diversity of values, cultures and living conditions: Diversity and inclusion (1), Education (7), Protection and use of natural resources (9), Peace and conflict (16), Migration and integration (17), Communication in a global context (21).* For the other thematic areas it is also possible to find non-fictional texts, prose and poems which are appropriate for Secondary Education Level I; this supports the participation of German in cross-curricular and subject-linking teaching projects. The possible assignment to competencies which can be acquired in German (see chapter 4.2.1.2) is wide and should be focussed on few specific competencies of a chosen project. The following sample topics may serve as an impulse. They don't claim to be complete or to set content priorities.

Thematic area	Sample topics	Competencies
1 Diversity of values, cultures and living conditions: Diversity and inclusion	· Body language and non-verbal communication in inter-religious and inter-society comparison	1.4, 2.1, 2.3
	· Status and relationship in different societies	2.2, 4.1, 4.3, 5.4, 5.6, 8.2, 10.1
	· Direct and indirect communication, e.g. forms of politeness in different social roles of different cultures	1.4, 2.2, 2.3
	· Life situations of black and white people in times of liberation from colonialism see e.g. the youth book *Kariuki und sein weißer Freund* (The Mzungi Boy Kariuki) by Meja MWangi (2006, 2014)	1.2., 3.3
	· Globalisation as a topic of feature films like Babel by Alejandro González Iñárritu (2006)	7.2, 8.3
	· Research on non-European literature and media in less widely used languages	1.2
	· Research on Nobel prizes in literature	11.2
	· Research on equal rights in society, e.g. by using excerpts from *Gleichheit ist Glück* (The Spirit Level) by Wilkinson & Pickett	6.3, 10.2, 11.3
	· endangered or dying languages (death and dying of languages)	1.1, 3.1, 3.2
	· "Purity" of languages and the "demand to speak German" on a German school yard, as opposed to language mixes or swapsl	3.1, 4.1, 6.2, 7.1, 8.1
	· "To speak two languages is useful"	2.1, 4.1, 5.1, 5.2, 6.2, 8.2, 9.1, 9.2, 10.2, 11.1
	· Text comparison on the relationship to nature, e.g. among indigenous peoples and in industrialised countries	5.5, 6.3, 7.2

Thematic area	Sample topics	Competencies
7 Education	· School and language education in different countries	1.3, 2.1, 3.1, 10.1
	· Handling the use of second languages and multilingualism in schools of different countries	1.4, 2.1, 8.1,
	· Alphabetisation, UNESCO programme EfA	1.1, 1.4, 3.1, 7.2, 7.3, 11.3
	· German (as a foreign language) in the world, support programmes	1.1, 8.2, 10.2, 11.1
9 Protection and use of natural resources and generation of energy	· Journalistic reports and comments on issues of global development; own comments	1.4, 4.3, 5.2, 6.3, 8.3, 9.2, 10.3, 11.3
	· Water in fictional and non-fictional texts by the example of big rivers	1.4, 5.1, 6.1, 7.2, 9.4, 11.1, 11.3
13 Globalisation of economy and labour	· Heritage languages and foreign languages at work and in business	2.1, 4.1, 4.3, 8.1
	· Labour migration and second-language acquisition	2.2, 4.2, 4.3, 8.1
	· Advertising and sustainability	1.4, 5.6, 6.1, 11.3
16 Peace and conflict	· German exile literature (Th. Mann, B. Brecht) and post-/migrant literature	3.3, 5.3, 6.3, 8.3
	· Mutual influence of different languages (e.g. borrowing, loaning) and gradual expulsion of one language by another one (e.g. of a minority language by a global language or of a losers' language by the winners' language)	1.4, 2.1, 3.1, 3.2, 6.1, 6.2, 7.1, 9.2, 9.3
	· Use of global languages, official national languages and non-official languages, and "concealed" languages	1.1, 1.3, 2.1, 3.2
	· Language as a means in politics and for participation in society	2.2, 3.1, 3.2, 7.1, 8.1, 9.1, 9.3, 10.1
	· Different perspectives in texts about the same event: Reports on wars and conflicts in daily media and in historical reports	4.2, 7.2, 9.1, 11.3
17 Migration and integration	· Emigration from Germany – immigration to Germany	2.1, 2.3, 4.1, 4.3, 9.4
	· Migration and integration, multilingualism and interculturality in migration and in "new" global literature	5.1–5.5, 6.3, 7.2, 8.3
	· Mixed languages (hybrid languages) in communication, literature, cabaret etc	1.3, 3.3, 4.1, 5.1, 5.2, 5.3, 6.3, 8.3, 9.4

Thematic area	Sample topics	Competencies
21 Communication in the global context	• Language(s) and identities: *"Mein Sprachportrait"* (My language portrait) by H.-J. Krumm, paint and compare it with others; or E. Canetti: *Die gerettete Zunge* (The Tongue set free) e.g. the first four chapters	2.1–2.3, 3.3, 4.2, 8.1, 10.1
	• Internet communication: Young people from different countries and continents introduce themselves to one another, speak about their daily life and about school, present photos, discuss global subjects, exchange their opinions on films or books.	2.2, 9.1, 10.2, 11.1, 11.3
	• German language minorities and – enclaves, German language in the former colonies;	1.1, 1.3, 2.1, 3.2, 5.4
	• Other languages in the officially German-speaking area, their respective status and use (examples)	1.1, 1.4, 5.1, 5.2, 6.2, 8.2, 9.2
	• Languages of the world, language families, discovery of languages, death of languages, languages spoken often or rarely, concealed languages, languages of the majority and the minority, language and dialect, e.g. dispute about road signs in Carinthia and South Tyrol	1.1–1.4, 3.1, 3.3, 6.2
	• Multilingualism in area with German as the official language: Language swaps, Kiez German, ethnolect (Kanaksprak)	2.1–2.3, 3.1, 4.1–4.3
	• Language politics and language rights (UNESCO, EU, Council of Europe, countries)	2.3, 3.1, 4.2

Diversity of values, cultures and living conditions: Human beings and hence pupils/students live in a world of diversity – diversity which they perceive and reflect on. In German lessons, literature and pragmatic texts as well as media express the diversity of living conditions, world views and values by linguistic, literary and medial instruments (see the National Education Standards for German 2003 and 2004). Family languages other than German and regional languages often remain unutilised or "concealed", although they are important for the identity of individuals and groups as well as for the communication across groups and borders. It is necessary to acknowledge and support them in education, and it is inevitable that languages are changed by being used (they integrate vocabulary, simplify grammatical structures, lose specific word orders). There are many examples for such mutations in the history of languages. Apart from the linguistic practice, language(s) can be addressed as a topic in itself and in comparison with other languages (language as a topic). Diversity and and differing values are met everywhere and so they are also addressed in literature and media. Students can respond to this diversity in a receptive, productive, written or oral form.

Education: The growing global mobility also affects education. In German lessons, competencies for extended and intensified communication processes are enhanced and knowledge for orientation within the world languages is offered. The school subject German – just as other language subjects – supports the development of competencies in handling literature and non-fictional texts of all kinds, also with regard to the use of languages in the media in times of global change. There can be no globalisation without language. Globally, learning German as a foreign language is becoming more and more important, supported by a multitude of programmes of intermediary organisations and the Federal Foreign Office (see Material 6, PASCH = Schulen: Partner der Zukunft; http://www.pasch-net.de/) This facilitates contacts between groups from many countries and *Tandems* can be formed (in pairs or groups) for the mutual learning of languages.

Apart from many other topics, **the protection and use of natural resources** and issues of energy supply are challenges for our sustainability. They require professional discussions and societal dialogue and must be worked on in conferences and entrepreneurial strategy discourses before they can be communicated to others via essays, media reports, minutes and strategy papers. Often this happens in an international context. The multilingual resources, e.g. for mediating and teaching languages and for international cooperation, constantly gain importance.

Peace and conflict are contents of political and historical disputes and also literary concern all over the world. Frequent topics are language conflicts which are existentially important for the identity of certain groups – when borders are shifted, when they come under foreign rule, when official and inofficial languages exist, when languages of migrants and refugees are "concealed" etc. Like many other languages, German can be the dominant language (e.g. in Germany with respect to Sorbian, in Austria with respect to Slovenian), but it can also be subordinate (partly in Southern Tyrol, Poland, Kazakhstan). The fundamental concern in conflicts is to make communication by language possible, to give room for different views and to understand the arguments of all conflict parties.

Migration, integration and inclusion address the initial and the target situation for many societies in the world. Integration is not unilateral assimilation but the mutual movement towards each other in the society as an overall system. Inclusion expresses even clearer that every human being should be allowed to completely and equitably participate in all processes of the society, independent from individual skills, ethnic or social origin, gender or age. An indirect approach is recommended for addressing this topic in German lessons as it is more appropriate than targets verbally set by the teacher: Reading biographical reports and literature in other languages and from other cultures, realising multilingualism and the many scripts in our own country and in the world as being normal, understanding language constructs in comparison but also developing an understanding for accents, errors or linguistic predicaments, and differentiating between structural, social, cultural and emotional aspects.

Communication transgresses all kinds of borders **in the globalised world.** The need for *linguae francae* and for learning foreign languages is undisputed because mobility, acceleration and increasing economic networking need successful communication, which is about more than improved skills (tools). Languages also express the speaker's identity, all over the world people feel connected by the same language ("mother" tongue, language loyalty). Often languages compete with each other. It is necessary to learn a second language if you want to be capaple of acting in another language environment. In this thematic area, knowledge is acquired through languages and their social aspects as well as by their economic and political significance (e.g. in the rapid medial dissemination of news and in appeals for resistance and solidarity).

4.2.1.4   Competency-oriented learning unit: German in the world

Young people can hardly imagine the linguistic diversity in the world, but often they are very interested in this subject. Many students know the names of neighbouring languages, but not those from remote countries: "African", "Asian", "Indian" – are answers when asked about their languages.[107] Children and adolescents often think they can directly attribute one country/state to one language, and vice versa. This is hardly the case, even less in view of growing migration. Language education and the respect towards speakers and languages require that we know more about
·   the languages of the world and their respective status
·   individual or regional multilingualism
·   educational bilingualism and conflict-bilingualism (bi- and multilingualism acquired through school education is very prestigious, as opposed to enforced bi- and multilingualism with languages that are sometimes concealed).

In contact situations within the country and in cross-border contacts monolingual students can experience multilingualism and – based on that – show respect and solidarity. Research confirms that interest in such experiences does already exist.[108]

The draft of the learning unit for the **8ᵗʰ form** choses the following access to the topic:
·   an individual example (M 1 b: *German and another language in the family*)
·   and the example of a social group (M 1 a: *Descendants of German immigrants live in a few remote valleys in Southern Brazil*)
·   the languages of the world
·   the significance of the German language in the world (M 2, 3, 4)
Problem areas are disclosed, which can serve as starting point for going deeper into the topic.

Competency grid
This learning unit is designed to enhance the core competencies 1–6, 8 and 10 (see chapter 3.5). The three attainment levels in the grid describe the expected results with regard to the students' performance, its evaluation and the feedback. The higher attainment levels include the lower ones. The respective general conditions, learning groups and subject-specific priorities can result in different requirements. They may have to be supplemented by subject-specific and supra-disciplinary demands.

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[107] Oomen-Welke (2003/2004), pp. 183 –195 bzw. 177–187
[108] See the examples in Oomen-Welke & Kühn 2 (2010) and Oomen-Welke & Bremerich-Vos (2014)

Specific competencies of the learning unit	Subject-specific comp.	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
The students are able to (…)				
(…) recognise language interests and conflicts at the example of German speakers abroad.	3.1, 5.1	(…) understand that people in a linguistically unfamiliar environment live with several languages, and evaluate the resulting consequences (based on decisions of linguistic politics).	(…) see and describe a situation from the perspective of someone who uses a language as first language and from someone's view who uses it as second language.	(…) differentiate between individual and societal multilingualism, realise the concequences for concerned persons, accept and support multilingualism as a social fact.
(…) differentiate between the use of German in the closed German-speaking area and the use of German by language minorities.	1.3, 3.1	(…) recognise differences between German as official national language and as minority language.	(…) recognise the situation of a majority and a minority language an assess possible consequenses.	(…) to support the language rights of studied minorities in the EU by valid arguments and transfer them to our society.
(…) realise that there are more languages in the world than countries and which effect this has on societies, and assess the significance of the right to one's own language.	1.1–1.4, 3.1, 4.1, 6.2	(…) show that many countries are multilingual and that there are multilingual regions. (…) distinguish between situations of public and private languages, and point out language rights.	(…) recognise potential chances and conflicts of multilingualism and evaluate their own research on the global situation of the German language.	(…) differentiate and understand individual and public needs in bilingual regions and of linguistic minorities and migrant languages, and understand reasons and motivations for learning German worldwide.
(…) recognise cultural and linguistic practices/routines of language groups, recognise and hybrid languages.	2.1, 2.3	(…) give examples for the linguistic diversity of German and other heritage languages as minority and majority form.	(…) notice own and foreign national stereotypes and differentiate auto and hetero stereotypes.	(…) find stereotypes in arguments and other texts and check them for facts.
(…) notice and understand the mutual influence of languages by the example of foreign words.	1.4, 5.1	(…) give examples for the influence of foreign words on German and for German words on other languages.	(…) give examples of historical, political, social and cultural reasons for the mutual influence of languages.	(…) handle controversial views on the positive and negative effects of mutual language influences ("enrichment", "foreign infiltration", "standardisation"), and stand for their own point of view with well-founded arguments.
(…) communicate and cooperate with partners who speak another language or live in a country with another language.	8.1–2, 9.1, 11.1, 11.3	(…) cooperate in their learning group/school with partners of another background, support them and show empathy for unfamiliar values and attitudes.	(…) accept other perspectives and participate in intercultural cooperations through media or real personal contacts.	(…) empathise with the partners' views in intercultural cooperations, mediate in conflicts and get involved for the compliance with human rights and for sustainable development goals by applying competent language.

Forms, course, and tasks of the learning unit

The units, called *steps,* can also be done separately, and their succession can be modified. A change from individual to partner or team work and the exchange of results or collective presentations are re-commended as well as a project approach. It is advisable to include the students in planning the procedure to arouse their interest through self-organisation and methodological reflection.

Step 1: Introduction: The lifeworld of minorities speaking German (case studies)

How do people live whose language is not spoken in their environment, or only by a small group?

Examplary life situations are the entry to the unit to come to an understanding of linguistic situations and problems that arise when living among people who speak another language. Such examples can sensitise the students, in this case for: descendents of German emigrants in Brazil (German as a suppressed language in a binational family in Mexico). – This is an indirect way to realise the position of speakers of other languages here and in other countries by changing the perspective and by transfer.

Material and method notes: Material 1 a and 1 b for the start and, when appropriate, research into more biographies and situations considering the students' background (e.g. emigrants, refugees, immigrants with a German family history, families with more than one language (…))

Step 2: German as language of majorities and minorities

How common is German as a majority language, how wide-spread as a minority language? Where is it spoken as mother tongue, first, second or foreign language, or as official national language?

The students can work with the following questions:

- In which countries is German the official language?
- In which countries is German one of the official languages next to others?
- In which countries do the inhabitants manage their lives with German as the only language, in which countries do they need (one) other language(s)?
- Why does Germany support financially and ideally learning German (as a foreign language) in other countries (Goethe Institute, DAAD, school partnerships with schools in other countries where German is taught – PASCH)?
- Are there customs and habits (courtesy, manners), character traits, forms of behaviour, taste preferences, that are said to be "German"? What, on the other hand, is typically "French", "Chinese"(…)? (Here we need to change the perspective from internal to external, to dissolve stereotypes and to realise the internal diversity which also applies to other cultures.)
- How important is German compared to other languages?

Material and method notes: M 2 gives information about the numeric strength of German in the world, with German as the official language, as majority and minority language. This and other information can be researched and updated via the internet. A cooperation with the subject History is recommended and, when appropriate, historical aspects of the (mutual) forming of stereotypes can be addressed.

Step 3: The languages of the world and their significance

(a) How many countries/states and how many languages do exist in the world?
There are 190 to 200 states in the world. The number is not stable due to divisions or mergers of states. The number of languages is generally estimated to be 4000–6000 (up to 10,000); not all of them are known. Some languages are dying because people who speak them die and because dominant languages eliminate them. This information is helpful to realise the global significance of different languages. We have to be aware that the number of speakers (numeric strength) is not the only relevant factor. Also, the economic power of the country where the respective language is the official language, its cultural strength (nowadays mainly entertainment industry and sports) as well as the relative ease to learn the respective foreign language (example: English) are relevant.

The table contains competing information from different sources. M 3 shows that some major languages are confined to their respective territory (Bengali, Japanese), while others have spread beyond their original territory (English, Spanish, Hindi/Urdu, Russian, French). It is rewarding to research about Chinese because the numerical data seem more consistent than the situation of Chinese really is (Sino-Tibetan: Mandarin plus seven more Chinese languages with many dialects). Migration is roughly taken into account. Research on the Indonesian languages with the official language Bahasa Indonesia also shows interesting results.

This research leads to the question whether a language can really be assigned to one particular country, as some students believe in the beginning. The students notice that multilingualism is the rule within most countries (Senegal: about 20 languages; Cameroon; about 200 languages). How about Germany?

Material and method notes: Introductory research and reflection (in groups) to find access to the topic. M 3 – as an information about the numeric strength of major world languages and about the comparison with other ones – can be used either before or after the students' research, as the situation suggests. Exchange of results.

(b) Do all languages of a country have equal rights? – Which differences exist? What are the rights?
Status of those who speak the official language, M 3; which languages exist in addition to the official ones? Discussion about the effects on certain languages like regional languages (e.g. Friesian, Sorbian) and migrant languages (e.g. Turkish, Albanian, Italian (…) in Germany).

What is the status of languages like sign language? Are there more than one sign languages in the world? How did they come into existence? How is sign language spoken?

Analogous questions can be asked about braille.

What is the value of languages for the speaker, what is their prestige in different countries? What are the rights to speak and to protect languages?

Material and method notes: Partner work on M 4 (can also be presented as a template that has to be completed), problems of language politics, internet research on "language rights" and "European Charta". Presentation of the results and discussion of consequences.

(c) Which new language would you like to learn?

Towards the end of this step, the students think about which languages they would like to learn, and why. Are there also minor languages that they find interesting?

Step 4: Foreign words and their history – How do languages influence one another?
The speakers of different languages get in contact with one another; if they come closer, they also copy one another's vocabulary. Languages get richer by using foreign words. From which languages are most foreign words in German, which words are internationally spread? Which German words have been adopted by other languages, from which disciplines and by which languages? What could be the reasons?
Speakers of other languages or the internet can give information about the use of German words in other languages. It makes sense to illustrate historical influences by examples.

Material and method notes: There is plenty of study material for students, e.g. in textbooks, about foreign and international words; see the material *Sprachenfächer 3* (2010) and the magazine *Praxis Deutsch* 235 (2012). We recommend to apply free work. M 5 does not have to be used by the students, but can serve as additional information for the teachers.

Step 5: Investigate other language and script systems
Spoken languages are often supported by gestures and facial expressions that form a second physical language system in addition and complementary to the acoustic language. In cases of deafness gestures can function as a complete language system: Sign language. All over the world, there are partly similar and partly different script systems: Iconographic and logographic scripts, terminological scripts, syllabic, alphabetical scripts as well as mixed forms and also the (alphabetical) syllable scripts and the sign languages which differ from country to country (often using a mix of signs for terms and for letters). Oomen-Welke (2014) offers didactic material on some scripts and options for lessons.

Material and method notes: See M 5; examples in Oomen-Welke (2014) and *Der Sprachen-fächer* (2010), pp. 421–467: *Zeichensprache, Mimik, Gestik und Außersprachliches* (Sign languages, facial expressions, gestures and extra-linguistic aspects). Here, the non-verbal sign systems form the context for sign language and braille, which is the indirect approach of working on the topic. For the sign language, see the (German) sign language dictionary:

http://www.sign-lang.uni-hamburg.de/alex/index.html and the overview on the website of HU Berlin:
http://www.reha.hu-berlin.de/lehrgebiete/gap/links/gebaerdensprachen-online

Step 6: Communication with learners of German in international partnerships

Those who learn German as a second or foreign language are always interested in finding partners from the German language area to communicate with them. It should be considered whether the class or study group is willing to install a long-term communication project with a class in another country or continent. One possibility is that each group or participant exchanges with the project partners descriptions of their lifeworld and school. Experience has shown that this often leads to respectful and appreciative acceptance of information (change of perspective) and to mutually learning languages.

Another possibility is that students offer to act as personal language assistents (interlocutors and helpers for learners of German as a foreign language).

For advanced learners such partnerships open the possibility to address topics of Global Development Education/ESD and make them a joint communication issue, e.g. experience with climate change in the partner countries, options of environmental protection and of enhancing the environmental awareness or attitudes towards cultural change through technological developments. Vice versa, the pressing questions in other countries regarding environmental issues should be taken up openly, e.g. strategies to avoid large-scale forest fires or floodings.

Material and method notes: The installation of international partnerships requires a special introduction and long-term assistance. Some possible forms of communication are the contact of the respective school class with people or classes abroad and individual or class correspondence, individual chats, individual language contacts and mutual learning partnerships (tandem learning). As an example, M 6 offers information on the project PASCH (http://www.pasch-net.de/). For chats, see http://chatderwelten.de, for language tandems: http://www.tandemcity.info/de_index.html and the introduction in Holstein & Oomen-Welke (2006): Sprachentandem für Paare, Kurse, Schulklassen, Freiburg.

MATERIAL

M 1a: Language minorities – Living in an environment with another language

Descendants of German immigrants live in a few remote valleys in Southern Brazil

At first Rejane felt ashamed. Because the other children were speaking differently. Because they called her "potatoe German", and noone wanted to play with her. Then she learnt Portuguese and found her love for theatre. Today she is a film star.
Rejane Zilles is coming from Walachai, 70 km from Porto Alegre in Southern Brazil. The village has 500 inhabitants, lies in the Wallachai valley – and still today it looks like the name suggests: lonesome, remote, forgotten. But it is neat and clean and colourful like a dolls' world. Close to the fields, there are roses and columbines in full blossom, the timbered houses glow in pink or skyblue, occasionally you see a bullock cart on the way.

"I'm not one of them anymore, I could not and don't want to live here anymore", says Rejane, "but I still feel at home with these people." Most of all, the language has opened many doors for her and for the film team that has accompanied her to Walachai. Whenever she talked to the people in Portuguese, they were reserved, but as soon as she talked a bit in her home dialect from the German Hunsrück region, doors opened and she was accepted as one of them.

Many people from the region can still today only speak a broken Portugese or with hard Germanic accent. And they feel ashamed for that, like Rejane felt when she was a child. They did not choose to be linguistically and culturally isolated, they are not German nationalists, but they live a forgotten life, in the very remote Walachai valley.

In the early 19th century, when Germans from Hunsrück escaped from famine and sailed across the ocean, and when the Brazilian king donated land to European settlers, Mathias Mombach was the first who came to the Walachai valley with his family. The Germans lived in the lonesome valley for almost 100 years, until a government order prohibited to speak their native language, because Hitler's regime had started the second world war, and hence German was banned. "We simply didn't talk any more", an old man remembers. That has changed now. Recently their dialect is about to be protected. There is a school in the neighbouring village where 50 percent German is allowed — although this kind of German is a strange mix of Hunsrück dialect and Portugese influence.[109]

See Christine Wollowski: Zurück in die Walachai. In: Süddeutsche Zeitung, 24. 6. 2010, p. 45

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[109] In Germany, the Walachai valley in Southern Brazil became prominent when Rejane Zille made her namesake documentary film (2009) and through the several hours of movie film *Die andere Heimat – Chronik einer Sehnsucht* (2013), by Edgar Reitz, which also portraits the Hunsrück dialect which is still spoken in the Walachai valley by emigrants from the first part of the 19th century. Rejane Zille's film "impressively reminds us on the fact that Germany is not only a land of immigrants – and this is what the majority in Germany didn't want to accept during the last years. But it has also been a land of emigrants – for some centuries. Here, the descendants of German immigrants live, who still, after 180 years, have problems to speak Portuguese and have a mixed German-Brazilian identity. On this background, looking at the disputes about immigration and at the excitement about German-Turks who still speak but little German 30-40 years after their immigration, it would be desirable to have just a little bit of the experience of those German emigrants present in the German mind-set: To realise that the much-vaunted "integration" is all but easy; it was particularly hard for the Germans in the Walachei." (http://www.festivalblog.com/archives/2009/10/walachei_von_re.php5, 27. 10. 2016) (in German)

M 1b: German and another family language

Lina was born as the second of six children in a binational family. Her father is Mexican, her mother German. She was born and was living for the first years in a very small and remote Mexican village (no electricity, often no running water). The one and only family language is Spanish, German is totally banned as a medium for communication. Lina tells her father felt betrayed whenever someone was talking in German. So Lina only learns her mother's German language from songs, but she doesn't understand their meaning. Furthermore, the mother says her evening prayers in German, so that the kids can learn to pray in German – without understanding a word. In addition, mother uses German when she rails at something or someone, because whenever mother got angry, "she started to babble in German, and nobody understood what exactly she meant", tells Lina. There is no talk about the languages at all.

During her childhood, Lina had two longer stays at her grandmother's in Germany; the first when she was a baby, her father was not with them. In those days Lina only heard the people talking in German. At the age of five she visited her grandparents in Germany for a whole year, together with her elder brother. In that year she totally forgot all her Spanish, as she tells. After her return German is suppressed again, because mother was still not allowed to speak German with her children, and also the two siblings were not allowed to communicate in German. In those days, Lina felt "like mute". These days were hard, because Lina had to be quickly integrated into school. Finally, everything was pretty much OK, she says. When the German grandmother came visiting her a year later, Lina could not understand her any more. For the way the German language was lost out after the stays abroad – Lina uses the word "annihilate". To speak but one language is deemed "natural"; in the whole environment, there is no one who lives with two languages.

See Tomas Peña Schumacher, 2013; slightly changed

M 2: Speakers of German (in mill.)

First language in countries/regions with German as official language		Second language in countries/regions with German as official language		in countries/regions without German as official language	
Germany	74,433,990	Germany	6,668,778	In Poland	0.15–1.1
Austria	7,452,947	Austria	781,563	in Russia	0.65–0.86
Switzerland	5,168,808	Switzerland	543,039	in Romania	0.22–0.05
South Tyrol	24,303	South Tyrol	113,738	in Czechia and Slovakia	0.04
Liechtenstein	32,824	Liechtenstein	3,283	in the Ukraine	0.04
Belgium	70,048	Belgium	2,830	in Hungary	0.02–0.035
Luxembourg	12,100	Luxembourg	395,100	in Argentina	0.3–0.4
(France, mainly Alsace	(1,2 mill.)	**Sum:**	**8,508,331**	in Australia	0.11–0.2
				in Brazil	0.5–1.5
				in Chile	0.02–0.04
				in Israel	0.10–0.2
	The very exact numbers were taken from the source below; they refer to different points of time.			in Canada	0.44–0.64
				in Mexico	0.04–0.09
				in Namibia	0.02–0.03
				in Paraguay	0.04–0.17
				in the USA	1.1–1.6
				in Venezuela	0.03

Source: U. Ammon, 2015, pp. 170 ff. and http://de.wikipedia.org/wiki/Deutsche_Sprache

M 3: Widely disseminated languages (in mill.; partly estimations)

Language	Speakers of languages as mother tongue (in mill.)	Speakers of languages as official language (in mill.)	Speakers of languages as second language (in mill.)	Number of countries (including migration)	international significance (calculated & estimated)
English	375–427	1,400	1,125	**112**	★ ★ ★ ★ ★
Chinese	726–1,071	1,000	118	**31**	★ ★ ★
Hindi/Urdu	242–223	785	155–224	**23**	★ ★
Spanish	388–266	280	59–90	**112**	★ ★ ★ ★
French	115–116	220	85–105	**60**	★ ★ ★ ★
Arabic	320–181	170	60–246	**57**	★ ★ ★
Russian	165–158	270	120	**33**	★ ★ ★
Portugese	216–165	160	30	**37**	★ ★
Bengali	215–162	150	140	**10**	★
German	90–121	100	185	**43**	★ ★ ★
Japanese	127–124	120	1	**25**	★ ★
Korean	78–66	78	78	**> 6**	★
Punjabi	129–60	24	–––	**2**	
Javanese	65–75	–––	5	**> 5**	

Sources: Crystal[2] 1998; numbers in italics from Crystal[3] 2010, 3rd printing 2013;
http://de.statista.com/, 27.10.2016
http://en.wikipedia.org/wiki/World_language, 27.10.2016

M 4: Languages spoken by only few and by many people respectively – frequent features

Languages spoken by only few people	Languages spoken by many people
· with small territory · no territory · speakers don't live in their own territory. · language of a cultural minority · language of a social minority · language of an economic minority · language with low prestige · language without an educational system · little or no recognition within the school system · relatively few speakers (comp. to the majority)	· with large territory · with territory · speakers live in their own territory. · language of a cultural majority · language of a social majority · language of an economic majority · language with high prestige · language with an own educational system · recognised by the school system · many speakers (comp.to the majority)

From: Chr. Allemann-Ghionda (1997): Mehrsprachige Bildung in Europa. In: LIFE – Ideen und Materialien für interkulturelles Lernen. München. p. 1 (in German).

M 5: Sign language
(There are varieties and mixtures: Finger alphabet and gestures showing the words.)

Source: © picture-alliance/dpa-Grafik

M 6: German words in the world

German words in the English language

bratwurst, ersatz, fraulein, gemutlichkeit, kaffeeklatsch, kindergarten, kitsch, leberwurst, sauerkraut, schwarmerei, schweinehund, weltanschauung, wunderkind

and

apple strudel, beer stube, sitz bath, kitschy, hamburger

German words in other languages

Deutsche Wörter in anderen Sprachen

The German word **Rathaus** has becomes **ratusz** in Polish, **Busserl** is **puszi** in Hungarian, in Romanian we have the words **chelner** (German: Kellner, English: waiter), **šlager** (Schlager[pop song]), **sprit** (a kind of wine) and **strand** (Strand [beach]). Particularly in Eastern Europe there is still a strong influence of the German language. – The most "successful" German words are **Nickel** and **Quarz**, which exist in at least ten other languages (English, Finnish, French, Italian, Spanish, Russian, Schwedish, Serbo-Croatian, Turkish, Hungarian); **Gneis, Marschall, Zickzack** and **Zink** (in at least nine other languages), **Walzer** (in at least eight), **Leitmotiv, Lied, Schnitzel** and the chemical element **Wolfram** (in at least six).

From: Oomen-Welke, Ingelore (Ed. 2010): Der Sprachfächer 3: Internationale Wörter, Berlin, p. 303
https://de.wikipedia.org/wiki/Liste_deutscher_W%C3%B6rter_in_anderen_Sprachen, 27. 10. 2016

M 7 PASCH: Schulen – Partner der Zukunft

Summer, sun – water, video: "What is more obvious than picking up the subject water when you're at the Black Sea?" – that's what the managers of PASCH in the countries around the Black Sea thought. So they decided that this should be the motto of the joint summer camp in Turkey. In spring, students from five countries in the Black Sea region had the chance to participate in a video contest, organised by PASCH-net, on the subject "Water in my country/in my city/in my house". Five winners from each country were invited to participate in the Black Sea summer camp in Turkey where they could improve their knowledge of German and of video techniques. Students from the PASCH host schools in Trabzon and Samsun were also present as well as German students who had come via the organisation "Youth for Understanding" (YFU) which sponsored their stay in Turkey. The London based Glocal Films-Team guided the video project. They are well known in the world of PASCH since they had launched the project EinBlick (http://blog.pasch-net.de/einblick/). The 60 students from seven countries were joined by four students of DaF (German as a foreign language) from Jena, one of them from Indonesia, one from Brazil, one Vietnamese and one German.

4.2.1.5   Performance Monitoring and learning-progress interviews

It is important for the performance feedback in learning progress interviews to refer to the specific competencies that are the targets of this learning unit; the students should be rudimentarily informed about them. The estimation of the competency development can be based on the attainment levels shown in the competency grid (see chapter 4.1.4).

The forms of performance monitoring correspond to the educational standards for the Secondary School (Level I) and use usual formats. There are several modes of performance monitoring regarding comprehending and productive learning, either in open task formats (open questions, comparisons, arguments etc.) or – but to a lesser degree – in half-open or closed formats (find passages in the text, answer distinct questions, supplement texts etc.). Here it is essential to refer to contents – in a way which the students can understand – i.e. most of all to the specific competencies that have been selected for the learning unit.

The understanding of oral, written and medial texts which can be continuous or discontinuous can be observed when the tasks require to find certain text passages or arguments and when the students discuss and argue about the text. It can also be done by using survey grids of pro and contra or by controversial group discussions with each group defending one particular line of arguments or by reasonable abstracts of text or text passages. Attainment *level 1* asks for finding small text passages, for paraphrases or descriptions; on attainment *level 2 and 3* the presentation of major contexts and connotations, possibly with argumentative reasons, are expected. These are largely open or half-open tasks mainly targeted at the competency areas *recognising* and *assessing*.

Furthermore, we recommend to create occasions that motivate (supported by newly acquired information) to produce written or oral texts, e.g. discussions or comments from the perspective of a concerned person or group (open format).

In some cases, supplementary procedures (like clozes) or selection procedures (like multiple choice or marking of relevant parts) or assignment and rearrangement tasks can be helpful.

In parts, the learning unit consists of research tasks where digital presentations are possible, which should generally be used for presenting the results. A portfolio (digital or analog) is an established form to document what has been realised.

The suggested discussion of methods and results can be seen as part of the learning progress interviews between teachers and students. Here, among others, the discussions are about steps needed to find the solution for a particular issue: which media and methods can be

used and what can be done by whom. These discussions show the students' preferences according to their respective learning type; with individual consultancy, these preferences can support the learning progress and self-reliant learning. In discussions which are meant to secure a result, developments and problems of the students and groups, i.e. methods, complex sets of facts and presentations are addressed. Altogether, the discussion will encourage and give inspiration for autonomous work.

The learning unit also offers options for performance monitoring while working on case studies, in dialogues and discussions, role talks or role plays. The development of intercultural and method competencies can be observed when the students exchange Emails. Synchronous (chats) or asynchronous communication options via the social media (mail, blogs, communication platforms) open up many chances to support communication and learning processes.

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4.2.2   New foreign languages

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4.2.2.1   Contribution of new foreign languages to Global Development Education/ESD

Curricula, educational standards and global development

The curricula of the federal states/Bundesländer determine the educational objectives for the new foreign languages. The lessons are targeted at the acquisition of communicative and cultural competencies; in particular, they are about understanding and communication in terms of linguistic skills, fundamental linguistic and (intercultural) knowledge as well as methodological competencies. The Common European Framework of Reference for Languages (CEF) (Council of Europe 2001) supplies essentials for the acquisition of competencies. Its detailed descriptions of competencies have been included in the respective national educational standards and in the standards of the German federal states. In the following, the subject English is taken as an example, but all statements, competencies and contents are also applicable for other foreign languages, particularly for French and Spanish.

Communication competency is the term used for the motivation and ability to establish contacts via the medium of foreign languages. It is characterized by the interaction with the topics of the *Curriculum Framework*. Such contacts come about through encounters in Germany, in growing together Europe and in the world. They are systematically promoted and maintained in
· school and city partnerships reflecting daily life,
· a wide variety of cultural and study exchanges,
· various voluntary services,
· people's worldwide travel activities,
· the internationalisation of business relationships,
· global analogous and digital contacts.

The educational standards for Secondary School Certification (Level I) in English/French, which all federal states have adopted, require equal status and interdependence of the four areas of competency (KMK resolution 4. 12. 2003):
· Functional communication competencies
· Command of linguistic means
· Intercultural competencies
· Methodological competencies

They have to be supplemented by competencies which are important for the learning area of global development and which are imbedded in the educational standards (English/French) for the general qualification for university entrance (KMK resolution 18. 10. 2012):
· Inclusion of communication strategies, particularly regarding intercultural competencies,
· Text and media competency,
· Language learning competency and linguistic awareness.

In Global Development Education/ESD, communicative behaviour is formed by competency orientation and thematic contents as well as by tasks and learning methods. Right from the start of foreign language learning the selection of topics and texts opens perspectives towards the One World when familiar lifeworlds meet unfamiliar circumstances and when this challenge is mastered by communication. These are processes of *recognizing* (acquisition of knowledge), *assessing* and *acting*. Within the learning process, concrete action sequences imply that certain tasks are performed on the content and text level (e.g. research, analysis, presentation) as well as by contacting and communicating in different action patterns (direct, media-related, text-related, face-to-face).

Language and global development
Language, culture and communication are global phenomena; dealing with languages and cultures of the world is at the centre of a modern and sustainable general education. As basket 3 of the Helsinki Final Act (1975) already stated, the languages of the world have to be protected in order to protect the cultures of the world. Language is culture expressed in words. Hence, the development of competencies in the field of linguistic and cultural communication among the regions and cultures, namely among human beings of different linguistic and cultural affiliation is a genuine task of foreing language education. Striving to teach languages with the objective of communicative faultlessness, the traditional education of foreign languages has always emphasised separating aspects, i.e. the unique features of a singular language. By now, it is undisputed that linguistic and culture-systematic analogies as well as historical relationships between languages and cultures have to be utilised for learning foreign languages. There is no doubt that English is the most important medium of global communication – particularly from a European perspective – but it is not the only one. All students should learn English as successfully as possible. This is why English is the number one foreign language at schools in Germany and Europe – with very few exceptions. With the curricular importance in view, this school subject has the role of a *gateway to languages* – more than any other foreign language which might be taught at a later stage.

Also against the background of demands by the European Union to introduce a tiered plurilingualism of all European Union citizens, foreign languages need to be taught at school in a way that the learners can build bridges between languages and cultures.

Dimensions of language learning in Global Development
The mentioned contexts constitute the starting point for possible contributions of foreign language education for a competency-based learning in Global Development Education/ ESD. The following competency clusters are to be developed:

Foreign language learning can be assigned to the three competency areas of Global Development Education/ESD **– Recognising – Assessing – Acting –** in the following way:
- **Recognising:** What students should know about languages and how they are used to acquire knowledge.
- **Assessing:** What languages do with people.
- **Acting:** What people can do with languages.

Recognising: *What students should know about languages*
From a didactic point of view this is about recognising the functions of language and linguistic diversity for being human in the context of global development.
- Language as a medium for dealing with global development
- Linguistic diversity as a precondition for cultural diversity and cultural wealth
- Linguistic diversity as guarantee for a diversity of thinking

Assessing: *What languages do with people*
An important aspect of Education for Sustainable Development is the students' ability to assess linguistic and cultural influences in a rational way. This includes issues of global development which are focused in the context of concrete learning situations, e.g.
- How can languages manipulate, e.g. through advertising, expository or fictional texts?
- How is political rule exerted through language?
- Which forms of linguistic discrimination exist, how do they affect the concerned persons?

This shows how the competency areas *recognising* and *assessing* are connected. The focus is on recognising how assessing works in thematic field of Global Development Education/ ESD by using linguistic means that are culturally determined. At the same time students learn – by developing their linguistic competency – to make their own assessments according to the principle of sustainable development.

Acting: *What people can do with language*
Here the focus is on motivating for the struggle with the challenges of global change and on strengthening sustainable attitudes and behaviour for the lifelong dealing with languages and cultures.

4.2.2.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

The students are able to (…)

	Core competencies	Subject-specific competencies
Recognising	**1. Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.	1.1 (…) obtain information purposefully and in different ways (libraries, internet, archives) on a topic in a foreign language.
		1.2 (…) understand information on a topic by using their linguistic skills (reading, listening comprehension, mediation).
		1.3 (…) use different texts in a foreign languages (non-fiction, literature, cartoons, tables) topic-relatedly.
		1.4 (…) recognise sociological, political and and economical ways of thinking and use them for working on a topic.
	2. Realisation of diversity (…) realise the socio-cultural and natural diversity in the One World.	2.1 (…) recognise differences and similarities between their own lives and the life situations in unfamiliar cultures and countries by working with texts in a foreign language and through personal contacts.
		2.2 (…) recognise historical, geographical and economic facts as causes for linguistic and cultural diversity.
		2.3 (…) realise that statements or remarks in other/foreign languages (dialects, sociolects, lexis) are culture specific.
	3. Analysis of global change (…) analyse processes of globalisation and development using the principle of sustainable development.	3.1 (…) recognise and describe (in a foreign language) the change of life situations as sustainable/unsustainable.
		3.2 (…) analyse in a foreign language globalisation and development processes against the background of the principle of sustainable development.
		3.3 (…) watch the development and dissemination of languages in the process of globalisation, and recognise changes.
	4. Differentiation of levels of activity (…) realise levels of activity, from the individual to the global level, in their respective function for development processes.	4.1 (…) define and articulate possibilities of individual (linguistic) influence on changes.
		4.2 (…) define and articulate possibilities of collective (linguistic) influence on developments.
		4.3 (…) analyse (in a foreign language) influences on development processes in foreign countries.

	Core competencies	Subject-specific competencies
Assessing	**5. Change of perspective and empathy** (…) realise, appreciate and reflect upon their own and others' values and their significance for life.	5.1 (…) reflect their own and others' value orientations in their language/linguistic expressions.
		5.2 (…) become aware that learning other languages is a personal gain with regard to intercultural and transcultural understanding.
		5.3 (…) reflect over eurocentric views on the world.
		5.4 (…) consciously recognise and respectfully assess different value assumptions.
		5.5 (…) accept and justify cultural diversity as a value.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) critically analyse original documents on the respect or violation of human rights.
		6.2 (…) evaluate examples with regard to the significance of the Convention on the rights of the child for sustainable development.
		6.3 (…) understand the original text of globally relevant international agreements and critically reflect their significance for sustainable development.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of ther world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) evaluate the effects of concrete development measures in the field of culture and language.
		7.2 (…) check and evaluate the central statements (in a foreign language) of a development project.

	Core competencies	Subject-specific competencies
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) realise and use the possibilitiy to participate in international activities to support sustainable development in the medium of a foreign language. 8.2 (…) articulate in a foreign language solidarity and shared responsibility for sustainable development processes.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating; and contribute to conflict resolutions.	9.1 (…) use a foreign language as a communication tool for the solution of socio-cultural conflicts and for understanding. 9.2 (…) participate in foreign language networks for the purpose of understanding and conflict resolution. 9.3 (…) plan and execute joint activities within international (school)partnerships. 9.4 (…) enter into an international debate in a respectful and appreciative manner while stating their own positions clearly.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) realistically evaluate chances for taking communicative influence in complex processes of globalisation, and avoid resignation. 10.2 (…) constructively discuss important future topics in a foreign language and tolerate uncertain and complex situations.
	11. Participation and active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) suggest in a foreign language activities to solve environmental and social problems, and actively participate. 11.2 (…) present in a foreign language what schools, religious communities or common interest groups can and should contribute to achieve goals of sustainable development.

4.2.2.3   Sample topics

The sample topics proposed for learning units or projects don't claim to set content priorities. They are obvious and tried out topics proposed in textbooks and other teaching material showing the possibilities to acquire the defined competencies (see 4.2.2.3) in subject-based (but also cross-curricular or subject-linking) learning.

Thematic area	Sample topics	Competencies
1 Diversity of values and living conditions: Diversity and inclusion	· Arranged marriages · Festivals	2.1, 2.2, 5.1, 5.3, 5.4, 5.5, 9.4
2 Globalisation of religious and ethical guiding principles	· Creation vs. evolution · Church meets state · Democracy – an ideology for the whole world?	1.2, 2.1, 5.1, 5.3, 5.4, 5.5, 8.2, 9.4, 10.2, 11.2
3 History of globalisation: From colonialism to the "global village"	*Australia* · Aborigines · (Aboriginal) Languages · Immigration *English in India* · The heritage of British colonization *New Englishes* · Remaking a colonial language in · post-colonial contexts	1.1–1.4, 2.2, 2.3, 3.2, 3.3, 4.1-4.3, 5.1, 5.3, 5.4, 11.2
4 Commodities from around the world: Production, trade and consumption	· Coffee – the world´s most traded commodity · The "Play Fair" campaign and the international sportswear industry	1.1, 1.2, 1.4,
5 Food and agriculture	*Hunger in a world of plenty* · Global food production	1.4, 2.2, 4.2, 7.1, 8.2, 10.1, 9.3
6 Illness and health	· Public health in emergencies (Oxfam) · Fighting famine in the Horn of Africa	1.3, 2.1, 2.2, 3.1, 4.2, 4.3, 7.1, 7.2, 8.1, 8.2, 9.4, 10.1, 11.1
7 Education	· The Internet and Gutenberg · Illiteracy – barrier to cultural growth	1.4, 2.3, 3.3, 7.1
8 Globalised leisure-time activities	· This thing called "Youth Culture" · Football as the world´s game · An internet lifestyle	1.5, 2.1, 8.1
9 Protection and use of natural resources and generation of energy	*How green is your future?* · The carbon footprint · Low impact living	1.5, 3.2, 4.1, 4.2, 6.4, 10.1, 11.1

Thematic area	Sample topics	Competencies
10 Opportunities and risks of technological progress	· Cloning and genetic engineering · Designer food	1.2, 1.3, 1.4, 3.1, 3.2, 4.2, 5.1, 7.1, 9.1, 11.1
11 Global environmental changes	*Global warming* · Climate change taking its toll	1.1, 1.3, 3.1, 4.2, 4.3, 7.1, 8.1, 10.1, 11.1
12 Mobility, urban development and traffic	Megacities – new urban challenges	1.1, 1.2, 2.1, 2.2, 3.1
13 Globalisation of the economy and labour	*Global economy* · Global player India · Degrowth	1.2, 1.3, 3.2, 4.3, 7.1
14 Demographic structures and development	*Ethnic minorities in multicultural societies* · Changes in the Indian caste system	1.3, 1.4, 5.1, 5.4, 5.5, 9.1
15 Poverty and social security	*Sweatshop – the modern hall of shame* · Sweatshops and child labour	4.1, 4.3, 5.2, 6.1, 6.2, 7.1, 8.1, 8.2, 9.2, 10.1, 11.1
16 Peace and conflict	*War and peace* · Children at war · Refugees	1.1, 1.2, 5.1, 6.3, 7.1, 9.3, 9.4, 10.2, 11.2
17 Migration and integration	· The immigrants' long journeys – case studies · Contemporary refugee crises	1.1, 2.1, 3.1, 3.2, 4.2, 4.3, 5.2, 5.5, 8.1, 9.1, 9.2, 11.2
18 Political rule, democracy and human rights (Good Governance)	*Defending Human Rights* · The death penalty · Children's Human Rights	1.1, 1.3, 2.1, 5.1, 5.4, 6.1, 6.2, 6.3, 9.1
19 Development cooperation and its institutions	· Aid and development finance (European charities) · Foreign aid – introducing self-help schemes · 2030 Agenda	1.5, 3.2, 4.3, 6.3, 7.1, 7.2, 8.1, 8.2, 9.2, 10.1, 11.1
20 Global governance	· NGOs – challenges to legitimacy World Trade Organization	1.1, 1.2, 1.4, 4.2, 6.1, 6.2, 7.2, 9.4, 10.2
21 Communication in the global context	*How social networks have changed the world* · Friend or foe – web 2.0? · English as a neighbouring and an international language	1.5, 2.3, 3.3, 5.2, 7.1, 7.2, 9.1, 9.2, 10.2

4.2.2.4   Competency-oriented learning unit: Adivasi Tea-project

The proposal of an *Adivasi Tea-project* for the years/forms 9/10 connects the content specifications of curricula like "Democracy and human rights" (NRW), "Comparison of (…) the own cultural background with the background of youth in anglophone countries" (BW) or "Globalisation" and "The current situation in countries of target languages" (BB) with the didactic requirements mentioned above. Particularly the subject-linking project approach offers an abundance of possibilities for the acquisition of linguistic competencies. The proposed project moreover allows work in different thematic areas suggested for Global Development Education/ESD.
The submitted project outline is exemplary and connects with the specifications on "intercultural competencies" in the educational standards for the first foreign language (English/French) for Secondary School certification Level I (see KMK 2003). It reaches beyond the traditional frame of regional studies (Landeskunde) in the target language by working on the foreign-language-topic – the cultural and economic survival of an indigenous ethnic minority (Adivasi) and their culture in a post-colonial context – with a focus on the principle of sustainable development.

The Adivasi are descendants of natives in India – originally herding nomads, forest peasants, fisherfolk, hunter-gatherers. With about 90 mill. people they make up 8.2 % of the total population of India. Today they form five different peoples that all have to fight to preserve their livelihood, traditions and identity in conditions of the economic boom of the BRIC-nation India. On the path to their self-determination, the Adivasi in the Nilgiri Hills of the Southern Indian Gudalur region are supported by national and international organisations. Apart from the support of intercultural encounters or cultural exchange projects, this work is focused on activities like education or the establishment of fair-trade relationships to support the marketing of their products from jointly organised and managed tea plantations. The Adivasi tribal area spreads across several Indian Union states. The Adivasi tribal communities speak their own mother tongues, while their national language is Tamil, and they also use English which is taught at school and which is becoming increasingly important for supra-regional contacts, as a lingua franca.

Competency grid

Activities in the learning unit support core competencies 1, 4, 6 and 11 of the Curriculum Framework. The three attainment levels in the grid describe the expected results with regard to the performance evaluation and feedback to the students. The higher attainment levels include the lower ones. The respective general conditions can result in different requirements. They might have to be supplemented by subject-specific and supra-disciplinary requirements.

Specific competencies of the learning unit	Subject-specific competencies	Attainment Level 1 (min.)	Attainment Level 2	Attainment Level 3 (max.)
In the target language, the students are (largely) able to (…)				
1. (…) acquire relevant information on the Adivasi.	1.1, 1.2, 1.3, 1.4	(…) engage in the topic, find and communicate information about it.	(…) use different texts in the foreign language, explain contexts, make comparisons and assign results to the topic.	(…) check the gathered information on its relevance and structure it accordingly.
2. (…) differentiate post-colonial lifeworlds and levels of action in the culture of the Adivasi.	4.1, 4.2, 4.3	(…) realise and communicate individual and collective chances to take influence.	(…) use the Adivasi example to explain different ways how to take influence and relate them to their consequences.	(…) use the Adivasi example to analyse and present the impact of potential stabilisation processes in their society.
3. (…) critically reflect and comment issues of the Adivasi culture and their struggle for self-preservation.	6.1, 6.2, 6.3, 6.4	(…) give examples for the violation of human rights and comment on attempts to protect them.	(…) explain the significance of the Adivasis' rights and discuss international agreements and means for their protection.	(…) use the Adivasi example to comment and critically evaluate human rights and children's rights issues; they can interpret international agreements and evaluate means for a sustainable development.
4. (…) get in contact with the *Adivasi Tea-project* and participate in its activities.	11.1, 11.2	(…) present forms of cooperation with the *Adivasi Tea-project* and address common interests.	(…) use the example of the *Adivasi Tea-project* to elaborate possible solutions for development problems and explore chances for a sustainable development.	(…) use the example of the *Adivasi Tea-project* to evaluate and compare actions to solve environmental problems and discuss related Social Affairs; they can describe their own possible ways to participate.

Course, tasks and methods

Course

This is a three-step learning project of several hours:

A. *Lead-in*: Information with basic texts about the Adivasi and about their *Tea-project* (teacher), joint planning of the project and target agreement;

B. *Main part*: Hand out of proposed material for the project steps, supplementary research of the learning groups, compilation and display of the results; presentations

C. *Functionalizing phase*: Critical reflection targeted at exploring possible activities, contacting the Adivasi and their project management, publication of the results.

Tasks

A. Lead-in

We are going to do a project on a special Indian theme.

(a) What idea do you have of India? What do you know about the people living there?
(b) Read what young Adivasi children write about their everyday life. Compare with your own situation.

MATERIAL

M 1 Letters of young Adivasi

Nibuna's letter

My name is Nibuna. I live in Chembakolli. Chembakolli is inside the forest. There are many big trees. It is nice and cool here.

There are many animals and birds in the forest: butterflies, peacocks, eagles, snakes, rats, rabbits, monkeys, deers, bears, leopards, tigers and elephants. Elephants are dangerous. Many children fear elephants. So the children stay at home and don't go to school.

Our families have cats and dogs. Some also have rabbits, hens, ducks, goats and cows. Anju found a Giant Squirrel when it was a baby and they looked after it. Now it is free and lives in the forest. When they call it it comes to play with them.

We have no electricity in Chembakolli. In the night it is dark and quiet. Sometimes animals come to our village. Animals will come if they don't find food inside the forest. We have dogs at home. The dogs warn us. Nibuna has a dog. Its name is Tiger. Ranjith has a dog. Its name is Jimmy. Jimmy likes to eat rice.

We like to play in the forest. We climb trees. We eat mangoes, banana and gooseberries. Elephants also like to eat fruits.

I like Chembakolli.

Badichi's letter

My name is Badichi. I live in Chembakolli. Chembakolli is in South India. Sometimes we have a lot of rain here. All my friends like rain.

I like to swim. I like to catch fish and crabs in the river. Crabs are tasty.

I like to play in the rain. But we can fall ill. It gets cold here. We use warm clothes and play inside the house.

After the rain we collect mushrooms and firewood. There are many mushrooms and many sticks.

The trees and plants look very green and beautiful. The rain fills the river, ponds and the well. We collect rainwater at home. So we don't have to carry water from the river. We use rainwater to take bath and to wash vessels and cloths. We cook water and drink it.

Heavy rain can damage the banana trees in our village, the small bridge or houses. Then we can't go to school. Now I have a new umbrella and a new school bag.

Manikandan's letter

My name is Manikandan. I live in Gudalur in South India. I go to school.

In our holidays I play with my sister.

I watch TV.

I play cricket.

I cycle on my bicycle.

I pick a banana from the garden and eat it.

I swim in the river.

I fish in the river.

I cook and eat fish with rice.

I help my mother.

I visit a temple with my family.

I visit my grandmother.

I pluck tea with my grandmother and get some money.

I go to the shops with my family.

I buy a new school bag.

Sources: Tarsh Thekaekara/The Shola Trust, Juadalur, Indien ©Engagement Global gGmbH, Bonn

(c) Now read the following text passages. They describe the geography and the inhabitants of a region in Southern India and tell you about changes that have taken place in this area.

Note down the information given and think about the following aspects:
· British India,
· forests and wildlife in Southern India,
· Adivasi people,
· tea cultivation and tourism.

Afterwards we are going to plan our project.

M 2: Human and Nature in the Nilgiris in South India

The Nilgiris is one of India's Districts in the Southern State of Tamilnadu and also refers to the Hill range that covers most of the District. "Nilgiri" means "Blue Hill", and could be called this because the hill slopes appear blue when the Kurunji flower blooms. Some also think the name could have come from the blue hazy mist that is always present around the hills.

The district had a very special significance in British India, since the British enjoyed the cool hill climate which was very different from the hot plains of India. The first outsiders came to the hills around 1800. Over the years, vast areas of forests from these hills have been cut down and replaced with tea, coffee, pepper and also monoculture timber plantations of teak and eucalyptus. Most of South India's tea is now grown in these hills. Tea cultivation has been the main economy of the Nilgiris till today. To protect the remaining forests and wildlife of the Nilgiris and surrounding regions the "Nilgiri Biosphere Reserve" was declared by UNESCO in 1986. It is a more or less continuous forest which covers a total area of $5520 \, km^2$. The wide range of altitude from 250 m to 2650 m as well as the wide range of rainfall between 4600 mm in the western ranges and as little as 800 mm in the eastern parts have resulted in its rich vegetation. The tropical evergreen forest stuck at high altitudes is found only in Southern India and is filled with endemic species. The "Nilgiri Biosphere Reserve" covers only 0.15 % of India's land area but contains 20 % of all flowering plants, 15 % of all butterflies and 23 % of all vertebrates found in India. The continuous forested area also supports the largest single population of elephants (about 5200) and tigers (about 535) in India. It is filled with other large mammals like leopards, gaur (the largest wild cattle species in the world) and sambar deer.

"Adivasis" are the indigenous people of India. These original inhabitants of the Nilgiris have a close link to the forest in their living, religion and identity. Today about 22.000 Adivasis live in the Nilgiris. They are few in number, but with lots of cultural and ethnic diversity. They were traditional hunter gatherers and semi-nomadic people. They collect forest produce like bamboo, firewood, timber, herbs, fruits and honey. With the extension of monoculture plantations and migrants encroaching the land of Adivasis in search of agricultural land lives of Adivasis have changed. The Adivasis today mainly work as agricultural labourers or occasionally as wage labourers for plantations or constructions. Some have raised tea, coffee or fruit trees. However, due to the poor maintenance of their land from lack of finance, the return from these lands is meagre. The general economic condition of the Adivasis in the Nilgiris is poor. Only recently after a long campaign of human rights organisations a new law legally allows the Adivasis to collect firewood, fruits or honey in the forests. The Kattunayakans are the most forest dependent of all these tribes.

Their villages lie within the forests and they depend a lot on minor forest produce and honey collection. A few of the Kattunayakans have also worked for the Forest Department. The Bettakurumbas are also employed as elephants mahouts, guards and watchers by the Forest Department and as guides for researchers and tourists entering wildlife areas.

Besides tea cultivation tourism has become an important economy in the Nilgiris. There are now a total of forty four resorts in the Masinagudi area and there are more coming up every day. Though this development is seen as a positive phenomenon by some people, it is now having a negative effect on the wild animal populations in the area. The factors that directly affect the forest and wildlife are the traffic with its noise levels and pollution, but also increased incidence of road kills. Most resorts have put up electric fences, blocking the passage of large animals, and often killing smaller animals. The tourists are very often loud and littering the area with bottles and food wrappers. Few come for purpose of experience nature. More and more people from neighbouring states buy land in the Nilgiris. Big animals like elephants, tigers, leopards, gaur and deer now find it difficult to move from one forest patch to another. The concentration of tourist activity in the region leads to a concentration of wealth that is unequally distributed, further expanding the gap between the rich and the poor. For the Adivasi wealth means "our community, our children, our unity, our culture and the forest". But they need money to pay medicines and education.

(d) Optional: Finally have a look at the map of the Nilgiris and note what you think important for our project.

M 3: Map of the Nilgiris
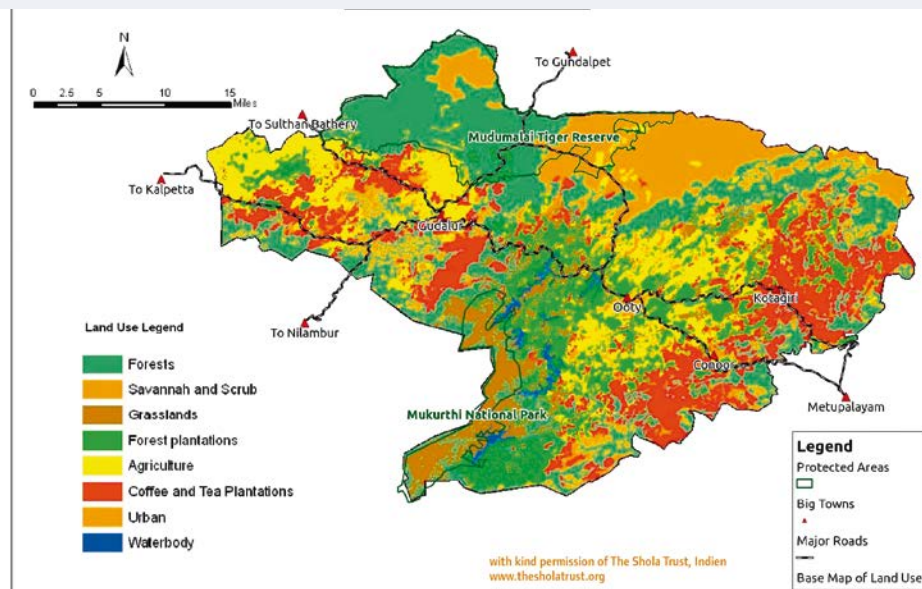
Source (text and map): Adivasi-Tee-Projekt, Kamen, in coop. with: Tarsh Thekaekara, The Shola Trust, Guadalur/Indien, http://www.adivasi-tee-projekt.org, 27.10.2016

B. Main part

You will find glimpses of the Adivasi culture, their past and their living conditions today, on the Internet with special reference to their tea-project. For the project suggested you can focus on one or more tasks. Decide on your contribution first before you get to work in groups. Find ways to organize and present your results.

Task 1

Look at the history of the Adivasi and give a historical overview of the indigenous people of India. There is plenty of information on the Internet, so it may be helpful to look at the main events for an idea and then research it. What strikes you most?
For a start go to http://en.wikipedia.org/wiki/Adivasi

Task 2

Collect information and take notes on what you learn about the Adivasi:
- languages
- religions and beliefs
- customs and traditions
- trade and agriculture
- modern India and the Adivasi

Decide with your partners on the most interesting and important facts only.

Task 3

Your task is to do a survey on the Adivasi of Gudalur (see map). In order to get authentic individual answers you have to contact students from that region and conduct interviews with them over the phone or by using email (click on http://www.adivasi-tee-projekt.org for help to get in touch).
Make a questionnaire and think of relevant questions that help you to explore what young people from the Gudalur region think about their everyday lives and other aspects your group is interested in. Group the responses and prepare a short summary of your findings.

Task 4

If you want to work with films, click http://www.survivalinternational.org/films/mine and watch some scenes of "Mine: Story of a sacred mountain".
The Adivasi tribes of the untouched forests in the south of India try to save their mountains from a big international company that plans to mine bauxite in the area. A fight for survival has begun.
Do extra research on the Internet to get further information and collect arguments for and against industrializing an area where the Adivasi still manage to live their traditional way of life.
In how far is this example valid for the Adivasi *Tea-project*?

C. Functionalizing phase

You are invited to choose any topic you find interesting.

All your results should be collected digitally, be presented for a poster session or be presented as a portfolio to be accessible to your classmates.

Task 1

So far you have learned a lot about the Adivasi – their problems, present developments, hopes for the future – and you have an idea of what is important to them. As you want to help them keep and improve the quality of life, you have decided to design a campaign for your fellow students: *"Support the Adivasi Tea-project"*.

In your group (…)
· define your task and make a plan for your work
· do research and collect relevant information. Look for reliable materials, think of ways to attract people's attention and try to convince your "target group" of your ideas
· work out strategies for taking action to help the Adivasi people effectively.
For a start click on http://www.actionaid.org.uk to get further information.

Task 2

You have focused on many aspects of the lives of the Adivasi and their tea-project. In addition, you have found out plenty about them (culture, history, economic development etc.).

Now you want to make an exhibition about the *Adivasi Tea-project* at your school.

In your group (…)
· decide on the aspects you want to cover in your exhibition
· think of ways of presenting information to the visitors (prepare short texts, make posters, hang up pictures, design diagrams and maps)
· you may add a short powerpoint presentation that runs automatically (choose one important aspect and concentrate on multimedia features: visuals, short films, interviews)
· be prepared to work as a guide and show visitors around the exhibition. People might have questions, and it might be necessary to give them clear explanations.

Task 3

Create your own task.

Methodological approaches

The project approach leaves plenty of room for autonomous initiatives and action. Furthermore, it leaves room for individual solutions. The foreign language is more than just a learning topic but also a means of communication. It is authentically experienced in the sense of functional communicative competencies – as soon as exchanges or encounters are due. Furthermore, it is secured that important methodological competencies of foreign language learning are effectively enhanced (e.g. use of means, presentation techniques, working with technologies for information procurement, writing and editing texts).

The methodological approaches are based on a differentiated view of the role of teachers which should be applied as the situation requires.

- *instructor/expert* – when providing information, activating previous knowledge and inspecting or securing results,
- *tutor/guide* – when the students' self-organised learning is in the focus and the teacher is offering help as consultant and accompanying the work process,
- *evaluator* – when the teacher is required to guide and steer the learning process or when the students' achievements have to be evaluated and rated.

4.2.2.5   Performance monitoring and learning-progress interviews

According to the specifications of the educational standards for Secondary School certification (Level I), on the one hand the modes of performance monitoring correlate with the traditi onal formulation of tasks. On the other hand, they need to correlate with internationally used test formats which are based on the Common European Framework of Reference for Languages, on the IQB proposals and on the standards of international language certificates (Müller-Hartmann et al. 2013).

For the field of listening –, hearing/seeing – and reading comprehension we recommend formats like multiple choice, clozes, matching tasks or tasks for the analysis or structuring of text statements. In order to evaluate the learning development regarding the productive communication competencies (speaking and writing) and the linguistic mediation it is recommended to perform receptive interviews or assign tasks in which the students present statements and opinions, write descriptions, organise information or give comments.

Pragmatic approaches for the monitoring of the learning progress in the field of intercultural and methodological competencies are following from the suggested form of project learning. The use of social media (web 2.0) opens chances to monitor processes of learning foreign languages in authentic communication situations. Written forms of text production (*essay writing, summary, questions and answers*) supplement the repertoire of performance monitoring.

It is important for the performance feedback in learning progress interviews to refer back to the competencies defined for the project, which the students should be informed about at an early stage. The evaluation of the competency development is based on the attainment levels shown in the competency grid.

4.2.2.6 Bibliography and sources

It is recommended to use the digitally offered material of Adivasi-Kooperationsprojekt e.V. ("Adivasi-Tee-Projekt" – ATO – Kopernikusstraße 41, D-14482 Potsdam). The project is managed by volunteers and sponsored by the BMZ. Their website offers comprehensive download material, which is especially developed for school projects and constantly updated: (www.adivasi-tee-projekt.org).

Apart from texts, photos, info charts and maps, the website also offers target group specific audio-visual material (digital flyers, authentic interviews and video sequences) as well as a comprehensive lists of weblinks. More basic texts in English on this thematic area can be found at www.Adivasi-Koordination.de. Basic information for teachers is provided by the Bundeszentrale für politische Bildung: "Alles, was wir besitzen, ist unser Land". Adivasi wehren sich zunehmend gegen Marginalisierung und Ausbeutung ("All we own is our land." Adivasi increasingly fight against marginalisation and exploitation.) 2007. http://www.bpb.de/internationales/asien/indien/44424/die-adivasi?p=all

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4.2.3 Arts

Sabine Grosser, Rudolf Preuss, Ernst Wagner

4.2.3.1 Contribution of the subject Arts to Global Development Education/ESD

The topics of arts education are taken from arts in general, from applied arts and from the aesthetics of everyday life. They include all primarily visual phenomena, from paintings to films, from design to architecture, from fashion to interactive media, from performance to illustration, from urban development to photography, from business graphics to landscape design. In terms of the *KMK's Einheitliche Prüfungsanforderungen in der Abiturprüfung Kunst* (standard requirements for the university entry examination in the subject arts) (2005, p. 4), all these objects are deemed to be "images": Image is a "broad term for two or three-dimensional objects, artefacts, visual information, processes and situations of visual experience." In contrast to language, "images" are – first – at least superficially understandable across cultural borders. Nevertheless, they do need to be discussed by means of language, and hence (but not only for this reason) they are context-bound. On the one hand, the production and reception of images are based on universal principles of a globally shared language and understanding of images; at the same time, their respective characteristics are always culture specific: They are produced in specific contexts and for specific purposes. This double character can be found in each picture/image, even if the "balance" of universality/ globality on the one hand and specific cultural/regional/local aspects on the other hand is always different.

Another aspect seems relevant in the context of global development. Images in terms of the above mentioned broad definition represent a certain view of the world and – on the other hand – they mould this view. This is their didactic potential for education, for all school subjects, but most of all for arts education with regard to the questions we are interested in here. "Images" construct our view on the world – a fact which increasingly emphasises the significance of a competent and responsible use of images, given that they are becoming more and more omnipresent. The school subject Arts can offer this competency as a contribution to education in times of globalisation. It is the central discipline dealing with visual aspects of learning processes. We cannot appropriately understand processes of globalisation without the accompanying imagery. Because it is the work at and with "images" that supports those competencies and enlightening potentials which are the foundation for acting in the context of global education. Images are crucial for the orientation and the development of attitudes, for analytical and productive abilities and skills as well as for basic knowledge.

The first edition of the Curriculum Framework critically remarked that so far "globalisation topics were taken up (…) in some subjects (e.g. Geography, Politics, Biology) without achieving coherence."[110] If we perceive the development areas in the Curriculum Framework

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[110] Federal Ministry for Economic Cooperation and Development/Bundesministerium für wirtschaftliche Zusammenarbeit (BMZ), Standing Conference of the Ministers of Education and Cultural Affairs of the federal states/Länder in the Federal Republic of Germany/Kultusministerkonferenz KMK. In: Went (Ed. 2009), Orientierungsrahmen für den Lernbereich Globale Entwicklung, Kurzfassung, Bonn 2009, p. 6

– *economy*, *politics*, *Social Affairs* and *environment* – as cultural (and therefore image-based) phenomena, as results of world images, world views, world designs – then we will also perceive direct and logical contexts. International interactions and economic or political situations in a country can be better understood if they are perceived embedded in the respective "imaginary" world and understood from that point of view. Someone whose focus is on sustainability associates this concept with other images in mind than someone whose aim is profit maximisation. Therefore, in educational processes, the contemplation and discussion about the imaginary worlds moulded by basic visual patterns, by self-images and images of the other(s), is essential for a better understanding of the world.

For quite a long time, globalisation has already been a topic of the arts, most of all of contemporary arts. On different levels, artists pick up complex aspects and topics of a globalised world: political and ecological issues as well as questions about the importance of the arts, of artists and culture in society, about production and distribution processes and about the reference to respective local and culture-specific definitions of arts. More and more artists from all regions of the world consciously participate in the global "fabrication of cultural symbols" and participate in the design of transformation processes on different levels.

But it is not only in the field of fine arts, global processes are also present in architecture, design, media design, fashion, and aesthetics of everyday life (further fields of arts education). Here, the challenges of sustainability are gaining in importance: How will the future houses look like? How about cities, commodities, products? Today the design of the environment, which cannot be delinked from visual aspects, is deeply connected with the principle of sustainability. This will be even more so in the future.

Furthermore, the options of the internet open up new cultural milieus, new (image) languages and new media practices. The increasing dissolution of borders leads to severe social changes and takes direct influence on behaviour, most of all of children and adolescents. The processes of becoming an adult is even more exposed to insecurities. There is a growing defence strategy against this: the "localisation" of image cultures by means of sealing off and codes for insiders which are meant not to be understandable beyond the borders of the own scene, sub-culture, region, religion or nation. These codes can safeguard everything that is specifically "the own" and can immunise against "the other". Between the poles of global and local, permanently innumerable transcultural mixtures, transitions and differentiations are taking place. Both poles mark the extremes of an increasingly accelerating development.

The increasing presence of images and pictoriality requires visual competency beyond knowledge about arts. Image competency in these terms relates artistic production (the students' own production) to the competency area of *acting* and *reception* (realising, analysing, interpretating) to the competency areas of *recognising* and *assessing*.

4.2.3.2   Subject-related competencies (Secondary School Certificate/10 school years) linked to core competencies of Global Development Education/ESD

The students are able to (…)

	Core competencies	Subject-related specific competencies (Arts)
Recognising	**1. Acquisition and processing of information** (…) acquire information on topics of glo-balisation and development and process it topic-relatedly.	1.1 (…) obtain and present information about cross-border artistic exchange and about global development in arts.
		1.2 (…) recognise visual brands and images of global or local dissemination and describe them as identity creating strategies.
		1.3 (…) collect information about the role of "images" (see 4.2.3.1) and introduce them into the discussion about globalisation and the encounter of cultures.
	2. Realisation of diversity (…) realise the socio-cultural and natural diversity in the One World.	2.1 (…) explore images, objects and designs of other cultures in the given context.
		2.2 (…) analyse the artistic views and lifeworld expressions on global issues which evolved under various conditions, and recognise their contexts.
		2.3 (…) recognise and understand the significance of the unknown as stimulus for artistic innovation.
		2.4 (…) take up inspirations from other image cultures and process them in their own design work.
	3. Analysis of global change (…) analyse processes of globalisation and development using the principle of sustainable development.	3.1 (…) analyse dynamics and conflicts of sustainable development from the perspective or the subject Arts.
		3.2 (…) grapple with the chances and risks of globalised artistic processes.
		3.3 (…) use examples to describe the international effects of art projects.
	4. Differentiation of levels of activity (…) realise levels of activity, from the individual to the global level, in their respective function for development processes.	4.1 (…) recognise the role of the visual aspect in the construction of identities on different levels and under-stand their respective effects on actions.
		4.2 (…) research the role of image worlds for development projects on different levels of activity.
		4.3 (…) recognise ideas of sustainable life styles and how they are expressed on different levels of society in housing concepts, in architecture and urban design.

	Core competencies	Subject-related specific competencies (Arts)
Assessing	**5. Change of perspective and empathy** (…) realise, appreciate and reflect upon their own and others' values and their significance for life.	5.1 (…) perceive works of art that appear strange in their respective cultural context. 5.2 (…) appreciate and critically reflect the diverse expressions of an everyday aesthetic self-image and value orientation (e.g. via clothes, hairstyle, accessories, furnishings). 5.3 (…) study and evaluate the penetration of private and local spheres of life by global aesthetic ideals (e.g. perceptions of beauty).
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) realise and accept that there are no absolute value measures for culture-bound aesthetic perceptions and preferences, and that they can be valued differently if seen from other perspectives. 6.2 (…) explain and comment how the principle of sustainable development and human rights can be expressed culturally differently in visual arts.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of ther world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) analyse the imagery of self-expressions of development projects in their home country and in the context of development cooperation (in brochures, in the internet etc.) and critically relate them to the principle of sustainable development.

	Core competencies	Subject–related specific competencies (Arts)
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) actively participate in the constructive cooperation of people from different cultures through international projects of joint creative design.
		8.2 (…) express in cooperation projects the joint but different personal responsibility for mankind and the environment.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating; and contribute to conflict resolutions.	9.1 (…) estimate and weigh up the conflict potential of art projects.
		9.2 (…) explore, test and reflect the possibilities of under-standing and conflict resolution by composing images.
		9.3 (…) analyse and assess the functionality and effects of images (e.g. caricatures) in conflicts.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) develop innovative proposals against the excesses of global commercialisation.
		10.2 (…) express artistically how it is possible to handle complexity and uncertainty in time s of global change.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) point out chances and risks for a sustainable development by their own artistic activity in public.
		11.2 (…) justify and artistically demonstrate their own position in questions of sustainable development.

4.2.3.3   Sample topics

The following sample topics proposed for learning units or projects don't claim to be complete or to set content priorities. They are obvious or tried topics which show the possibilities to strengthen or develop competencies of Global Development Education/ESD in Arts lessons (but also cross-curricular or subject-linking).

Thematic areas	Sample topics	Competencies
1 Diversity of values and living conditions: Diversity and inclusion	· Destruction of images/works of art in conflict zones	1.3, 2.2, 3.1, 4.1, 5.1, 6.2
	· Computer games and product design	**1.2**, 2.1, 2.2, 3.1, 4.1, 4.2, 5.2, 6.1, 11.2
	· Contemporary art from unfamiliar cultural backgrounds	1.3, 2.2, 3.2, 4.1, **5.1**, 6.1, 10.2
	· Concepts of spatial representation in different cultures	1.3, **2.1**, 2.4, 5.1,
	· Clothing styles and body languages	1.2, 2.3, 3.3, 5.2, **6.1**, 9.1
	· Global icons, global image languages – significance of the media	**1.2**, 2.1, 2.2, 3.1, 4.2, 5.3, 10.2
	· Sacred sculptures/pictures in the world religions – and religious bans of images	1.3, 2.1, 2.2, 3.1, 3.3, 4.1, 5.1, 9.2,
	· Transformation of devine images/idols of deities	1.3, 2.1, 2.4, 3.1, 5.1, 6.1
3 History of globalistion: From colonialism to the "global village"	· Fascination of "the other" and the unfamiliar in arts (e.g. ethnological museums)	1.3, 2.3, 3.2, 4.1, 5.1, 9.1, 11.1
	· Self-perception and perception by others – e.g. imperialism and exoticism in images	1.1, 2.1, 2.3, 6.2,
4 Commodities from around the world: Production, trade and consumption	· Sustainability in design – new materials/substances for art projects	1.2, 2.3, 3.2, 4.2, 5.2, 6.1, 7.1, 9.1, 10.1
	· Souvenirs – folk art	1.3, 2.4, **5.3**, 6.1, 10.1
5 Food and agriculture	· Aesthetics in food design between sustainability and successful sale	1.2, 3.1, 4.2, 5.2, 7.1, 10.1
6 Illness and health	· Body images and ideals of health	1.2, 2.3, 4.2, 5.3, 6.1, 7.1, **10.2**
7 Education	· Perception and sketching of "the strange" on expeditions and educational trips, also in the context of school partnerships[*]	
8 Globalised leisure-time activities	· Travelling and tourism – the effect of images	
	· Digital media for leisure time (visual stimuli)	

[*]   See the inspiring examples on www.forum-austausch.de, 27.10.2016

Thematic areas	Sample topics	Competencies
10 Opportunities and risks of technological progress	· Disasters and images of progress	1.2, 2.2, 3.1, **4.2**, 7.1, 10.2, 11.2
11 Global environmental changes	· Landart and ecological questions	1.2, 3.3, 4.2, 5.2, 8.2, 10.2, 11.2
12 Mobility, urban development and traffic	· City – countryside, urbanisation	1.3, **3.1**, 7.1, 8.2, 11.1
	· New forms of aesthetic orientation in the urban space mega cities	1.3, 3.1, 6.1, 7.1, 8.1, 11.1
13 Globalisation of the economy and labour	· Seduction to consume and sustainability in advertising – aestheticization of everyday life	**1.2**, 2.3, 3.3, 4.2, 5.2, 9.1, 10.1
	· Fashion and lifestyle	1.2, 2.1, 2.2, **5.2**, 6.1, 10.1, 11.2
14 Demographic structures and developments	· Family images, male images, female images, childhood images	1.3, 2.3, 3.1, 4.2, 5.2, 7.1, 10.2
	· Youth as an autonomous aesthetic space	1.2, 2.3, 3.1, 4.2, 5.2, 11.2
15 Poverty and social security	· Imagery in poster advertisement of major aid organisations (e.g. Brot für die Welt, Misereor)	1.2, 1.3, 2.1, 2.3, 4.1, 5.3, 8.2, 10.2
	· Presentation/staging of emigration from Germany (e.g. Überseemuseum Bremen)	1.3, 2.1, 2.3, 4.1, 10.2
16 Peace and conflict	· (Anti-)war posters and -propaganda	2.1, 2.3, 4.2, 6.2, 8.2, 9.2, 11.1
	· War about pictures, the role of images in wars	1.3, 4.2, 5.1, 6.2, 8.2, 9.1, 9.2
17 Migration and integration	· Migrating cultural assets – Chinese fashion, orientalism, primitivism	1.3, 2.3, 3.2, 4.1, 5.1, 11.2
	· Discover the migrant art scenes	1.1, 2.1, 2.4, 3.2, 4.2, 6.1, 8.2, 11.2
18 Political rule, democracy and human rights (good governance)	· Logo iconography of global institutions and global players	**1.2**, 3.1, 4.2, 6.2, 10.2, 11.2
	· Persecuted artists, persecuted photographers	1.1, 2.1, 5.2, 6.2, 7.1, 8.2, 10.2
	· Art and totalitarianism, art and propaganda	1.2, 3.2, 4.2, 6.2, 9.2, 11.2
19 Development cooperation and its institutions	· Art exhibitions as international cultural exchange, the work of German culture institutes abroad	1.3, 2.1, 2.2, 4.1, 5.1, 7.1, 9.1, 11.1
20 Global governance	· UNESCO conventions (the Hague Convention, World Heritage, Cultural Diversity)	1.3, 2.1, 2.4, 3.2, 4.2, 6.1, 8.1, 10.2
21 Communication in the global context	· Self-images in social networks	1.3, 2.2, 3.1, 4.1, 5.3, 7.1, 9.1, 10.3
	· Emoticons and global sign language	1.2, 2.1, 2.2, 4.2, 5.2, 9.1, 10.3, 11.2

4.2.3.4 Competency-oriented learning-unit: WORLD IMAGES (form 9/10)

Rationale of the topic selection
The website of the World Press Photo Awards is an interesting archive of journalistic photos which mould our view of a globalised world. Since 1955, this global award has been posted annually by an international jury. The founder is a Dutch not-for-profit-foundation. Their explicit target is to work for a photographic understanding of the world. The foundation also wants to cover the most important events of each respective year.
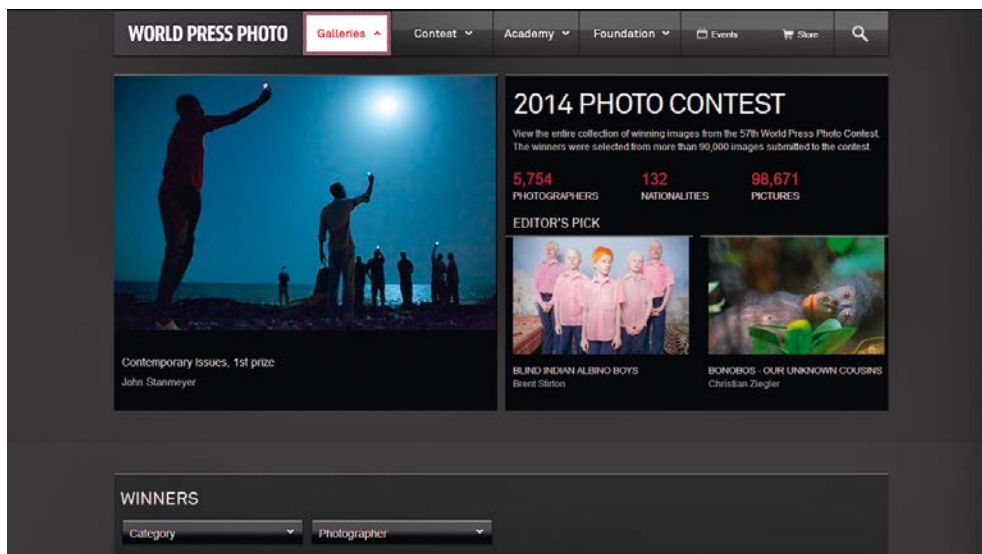
www.worldpressphoto.org (Screenshot)

Since 1955, the number of participants in the World Press Photo Award has rapidly risen. In 2015, more than 6,000 photographers from more than 131 countries participated with over 98,000 photos. Apparently, the contest has a global focus. As digital photos are accepted to be sent in, there is a deliberate low threshold to participate. Prizes are awarded in different categories like portrait, environment, sports, politics, entertainment etc. These categories have developed over the time and are constantly adjusted. The organisers put high emphasis on the political independence and a balanced composition of the jury: Industrialised and developing countries, the east and the west are represented as well as different religious orientations. The World Press Photo Awards archive can be used for education from all kinds of perspective. The following learning unit is focused on the topic *Our image of a globalised world*. Photo cards with examples from different categories and countries have been pre-pared, like for instance (before the students are asked to select their photos – see task A 1 – they should see them without caption or comments):

Tihuanako, Bolivia, 2009

© Pietro Paolini. People gather at the sacred ruins of the ancient city state Tihuanaku, beside the lake Titicaca, for a traditional ceremony on president Morales' (the first indigenous Bolivian to hold that office) inauguration day.

Signal, 2014

© John Stanmeyer/National Geographic Society. African migrants on the shore of Djibouti City at night raise their phones in an attempt to catch an inexpensive signal from neighbouring Somalia – a tenuous link to relatives abroad

Occupied Pleasures, 2014

© Tanya Habjouqa. More than four million Palestinians live in the West Bank, Gaza, and East Jerusalem, where the political situation regularly intrudes upon the most mundane of moments.

Days of Night – Nights of Day, 2014

© Elena Chernyshova. Norilsk, in northern Russia, is (after Murmansk) the second-largest city within the Arctic Circle, with a population of over 175.300. It is also one of the ten most polluted cities in the world.

Conquering Speed, 2014

© Sergej Ilnitsky. Marinus Kraus of Germany, during the qualification round. Night event at the FIS Ski Jumping World Cup, in December 2014.

Into the Light, 2010

© Wolfram Hahn. People re-enact the self-portraits they took for the social networking site MySpace. The photographer contacted fellow Berliners, asking them to remake the photos in the place they had originally been taken. He captured the exact moment at which the flash went off.

Competency grid

This learning unit is meant to enhance the core competencies 1, 2, 6, 10 and 11 of the Curriculum Framework. The three attainment levels for Secondary School certification (Level I) shown in the grid describe expected results with regard to the performance evaluation and feedback to students. The higher attainment levels include the lower ones. The respective general conditions can result in different requirements. They might have to be supplemented by subject-specific and supra-disciplinary requirements.

Specific competency	Subject-specific competency	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
Students are able to (…)				
(…) collect and process relevant information about photos of the World Press Photo Award, especially regarding the diversity of views about globalisation.	1.3	(…) constructively participate in the teamwork by collecting information on photos and analysing their message on globalisation.	(…) add to the teamwork essential information on the selected photo and recognise the photo's statements about globalisation.	(…) lead/coordinate the team in collecting and processing information and formulate the message of the photo.
(…) draw conclusions for their own photo activities from the analysis of the chosen examples and use inspirations from other visual cultures to support their image design.	2.4	(…) recognise basic statements and visual elements of the analysed photos and draw inspiration for their own photo design.	(…) analyse the implementation of intended statements by the used visual means (of the selected photos) and process the inspirations in their own photo design.	(…) draw conclusions for their own photo activities from the analysis of the effects of certain visual means (of the selected photos) and effectively use the inspiration from other visual cultures for their own photo design.
(…) reflect on the cultural conditioning of their own and unfamiliar world views when designing their photos and discussing about the awarded photos.	6.1	(…) reflect on the differences between their selection of topics and visual design and that of the awarded photos.	(…) reflect on differences/commonalities of world views with respect to the selection of motives and the visual design of the awarded photos and their own visual message on globalisation.	(…) realise, when comparatively assessing the culture-bound world views (of the presented and their own visual messages on globalisation), that there are no generally valid value measures.
(…) use their own visual work (conceived as communication of messages) to open up individual options with regard to chances and risks for a sustainable development and accept responsibility for their own attitude.	10.2, 11.1	(…) convincingly design visually and, as regards content, their own message on globalisation and stand up for it.	(…) use their own photographic design of a message on globalisation to open up options for a sustainable future and stand up for them in the public.	(…) use their own photographic design of clear messages on globalisation to point to the chances and risks for a sustainable development and convincingly stand up for the attitude gained in this way.

Course and tasks

A. Reflection part (group work)

1. Form small groups (two to four students) and select one photo from the presented portfolio (s.a.). Work with your selected photo on the following questions, and use the website www.worldpressphoto.org
    a) Which region of the world is the photo from (place shown in the photo)? Where does the photographer come from? Get together with the other groups and mark your results appropriately on a large world map.
    b) What is the topic of the respective photo? What does the photo tell you about the globalised world? Groupwise: Take a piece of paper and write down some catchy statements about the photo.
    c) Which photographic means does the photographer use and how do these techniques highlight your topic? (When you work on this question, please consider aspects like photo focus, down-/up-perspective, photographer's/viewer's position, use of B/W or colour, sharp or soft focus, lighting.) Write down the most important points.
    d) Do you think that the photo has been digitally enhanced? Give reasons for your assumption.

2. Now, please present your results to the other students of the class. For the discussion, please consider the following questions:
    a) Are the selected photos (all of them) more or less representative for the different regions of the world – with respect to the locations and the photographer's origin?
    b) Do you think all photos taken together show important aspects of the globalised world?
    c) How do some photos show their cultural background/conditioning?
    d) Which topics or aspects that have *not* been addressed here do you consider important? Which aspects would you possibly display differently?

B. Practical part (individual work)

1. Now design your own photograph on the topic globalisation. First select a suitable motif. Use the photographical techniques you know in such a way that they support what you want to tell. You can use montage or collage techniques when post-processing your picture.
2. Find an appropriate slogan (a word, a phrase or a short sentence) for your picture which highlights your message. Combine your photo with the slogan to form a poster and select suitable fonts, colours and arrangements for the layout.
3. Hang up your poster at an appropriate place in your school.

C. Possible continuation

1. **Judging of the works:** Similar to the selection procedure for the World Press Photo Award – the results of the students' practical works can be judged by a students' jury. In order to highlight the multiperspectivity, different roles within the jury can be assigned and defined (e.g. the representatives from different countries/from different religions, UNESCO representatives, a peace worker from (…), the president of an art academy in (…)). The jury members give reasons for the selection of the first three prizes, from the point of view of their respective roles.

   Alternative: The chairman of the jury in 2012, Aidan Sullivan, describes the selection process in an interview. This statement is presented to the students: "The selection is a long process. The jury looks at the pictures in several rounds: What were the important events of the year? What do the pictures try to express? Is there an image that remains firmly etched in our memory? And how do the photographic means support this effect[111]?" The students can justify their selection with the same kind of criteria.

2. **Presentation of the results:** The photos can be printed out or collected digitally. The results will be presented to the school public in an appropriate way and context. If several classes participate in this project and the larger number of photos can be presented in an exhibition in categories (as done by the World Press Photo Award). The students themselves decide on these categories when they examine the photos. If the project is repeated in the following year, these categories can be used as devision for a new competition.

[111] https://vimeo.com/album/2454894/video/67505413, 27.10.2016

4.2.3.5   Performance monitoring and learning-progress interviews

The continuous observation of the students on the background of the desired specific competencies and the dialogue with them are the foundation for the assessment of their performance. This particularly applies to the group phase, in which individual students should be addressed regarding the desired competencies. This will help them to realistically assess their own performance in relation to the aspired education targets, to realise learning needs and to take on responsibility for their own learning process. The dialogue with the students gives the teachers important hints about the effectivity of the learning process, which enable them to design it in a way that an individual support is possible.

The group phase and the following presentation and discussion of the results in the class as well as the practical part provide sufficient possibilities and reference points for performance assessments. They have to be attuned to the principles and criteria of the subject (Arts) and to the students' state of development. Apart from the subject-specific competencies and the core competencies of Global Development Education/ESD (which have been selected for the specific lesson), supra-disciplinary competencies will have to be taken into account. In the case of the suggested learning unit such competencies may be, inter alia, "cooperation in the group" and increasing "reflective capacities".

The assessment criteria are based on the subject-related and supra-disciplinary targets and requirements, but most of all on the attainment levels of the respective competency grid for the unit. Here, not only the achievement of what is required but also the individual learning progress is important.

4.2.3.6 Bibliography

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4.2.4   Music

Bernd Clausen, Ekkehard Mascher, Raimund Vogels

4.2.4.1   Contribution of the subject Music to Global Development Education/ESD

At present, globalisation, migration and medialisation are dominating cultural factors which require a musical education that supports differentiated perception and enables cultural participation through creative and self-determined negotiation (Aushandlung). Musical education at school has to tie in with already existing forms of participation.

Particularly musical education in Germany has a long tradition of eurocentric views of music, which have been globally disseminated in the 19th century and which are still widely accepted. Education for Sustainable Development in the field of music requires in a first step to critically reflect on this perspective and – by changing the perspective – to realise the own musical practices (i.e. the multiple contacts with music). This acquisition of cultural competency permeates musical education at school and manifests itself by linguistic interpretation, by exploring and aesthetically designing.

In the 1950s and 1960s, musical education and the perception of art in German curricula and learning material (school books, brochures on special topics and essays) were often exclusively focused on European art music. The perspective began to expand when the German UNESCO commission published the report "Der Zugang Jugendlicher zu den Zeugnissen außereuropäischer Kulturen", 1967 (The access of young people to documents of extra-European cultures).

Nevertheless, and in spite of a large variety of didactic literature, still today some curricula and textbooks focus on a comparatively narrow canon of works which are almost exclusively by German-speaking musicians. It is important to expand the perspective on the reception of music in different historical or cultural contexts, i.e. on music as social practice with regard to its roles in society, to power, hierarchy and change. This expanded perspective highlights music as a social phenomenon. The ongoing discussion about competency models for the school subject music (Lehmann-Wermser a.o., 2008), is not yet sufficiently in touch with discussions about a concept of culture, that is about inter- or transculturality.

For a major part of current music didactics the students' user practices ("usuelle Praxen", Kaiser 2002) are the starting point for pedagogical reflection on music. Whatever the students bring of and by themselves into the music lessons should be actively transferred into an "understanding" practice of music (Kaiser 2010) in order to safeguard from any externally determined cultural music participation. In this way, music moves into the focus as a social and cultural practice and is not any longer exclusively local or national but also globally determined. This is because music fulfils an important role in the formation and transformation of social communities, as e.g. in metropolitan music scenes, migrant communities or so-called subcultures. The production of such "social spaces" is to be seen in the divided musical practice, as well in local as in global contexts: Reggae, Bhangra, Salsa and Rai, but also Turkish Rap from Berlin or crossover projects with different ensembles of the art music

business are proofs for the complex links between local and global scenes. They are in relations of mutual exchange, they are absorbed and transformed, they receive new meanings and they are negotiated in social practices. In contrast to private lessons of instrumental music, music education at schools for general education has to be guided by pedagogical consideration which has to bring the "plurality of acoustic phenomena" (Clausen 2012) into the focus. Only then music education can fulfil the expectation of providing general education.

It is the central task of music education to appropriately incorporate the multitude of musical levels of meaning and to scrutinise their consequence for the students' practice of music. The ability to define oneself in familial, local and global contexts and to understand oneself as an active part of a transcultural network also opens the realisation of conceptual contexts which is crucial for the construction of an individual identity.

Education for Sustainable Development in the field of music is based on the conviction that music has the potential to activate and stimulate processes of understanding on many cultural levels.

The focus of music education at school is on vocal and instrumental production of music, i.e. on the development of individual musical expression when rendering music from different traditions and in different styles as well as own variations and compositions. This focus supports sensitive and experiential faculties in the process of hearing and producing music. It also develops an understanding for the social, economic and often political contextuality of music. All three competency areas, production, reception and reflection, are closely connected to the core competencies of Global Development Education/ESD.

The following allocation of music competencies to the core competencies of Global Development Education/ESD is made with regard to the tasks of music lessons defined in the curricula of the federal states. They assign a central role to music in the field of aesthetic education and in the opening of ways for self-determined cultural participation. Furthermore, "the school subject music addresses (…) social, economic, ecological and political phenomena and problems of sustainable development and helps to realise interdependences and a measure of value for the own way of acting as well as an understanding of decisions in society." (Ministry of Education, Lower Saxony, Core curriculum for Integrierte Gesamtschule, forms 5–10, music, p. 7; 2012 – similar definitions in other federal states).

4.2.4.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

Students are able to (…)

	Core competencies	Subject-related competencies (Music)
Recognising	**1. Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.	1.1 (…) perform selective research about music user practices (Gebrauchspraxen), in archives and exhibitions as well as in the internet.
		1.2 (…) research and process information on the global networking of music in their social environment.
	2. Realisation of diversity (…) realise the socio-cultural and natural diversity in the One World.	2.1 (…) describe the basics of the Soundscapes concept and give examples.
		2.2 (…) understand music as a transcultural phenomenon which enables to comprehend the diversity of music worlds through the perception of "the strange" inside of us.
		2.3 (…) realise essential aspects and root causes of the change of musical practice in the context of globalisation.
	3. Analysis of global change (…) analyse processes of globalisation and development using the principle of sustainable development.	3.1 (…) show by examples how decisions taken on different levels become effective for musical developments.
		3.2 (…) realise influences of distribution via media on musical activities.
	4. Differentiation of levels of activity (…) realise levels of activity, from the individual to the global level, in their respective function for development processes.	4.1 (…) show by examples how decisions taken on different levels become effective for musical developments.
		4.2 (…) realise influences of distribution via media on musical activities.
		4.3 (…) work out the interdependences between consumers and producers of music.

	Core competencies	Subject-related competencies (Music)
Assessing	**5. Change of perspective and empathy** (…) realise, appreciate and reflect upon their own and others' values and their significance for life.	5.1 (…) empathically open to unfamiliar music and investigate the appreciation of others for this music.
		5.2 (…) positively engage in the negotiation about fundamentally equivalent music practices.
		5.3 (…) recognise and critically reflect on eurocentric views in the evaluation of music.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) comment on the commercialisation of music in the context of globalisation.
		6.2 (…) realise their music consumption and their listening habits in their contextuality and reflect on them against the background of the principle of sustainable development.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of ther world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) analyse music measures of the foreign cultural policy and evaluate them, taking into account respective interests.
		7.2 (…) evaluate a selected major music project (e.g. a festival) with regard to its underlying concept and its effects.
		7.3 (…) recognise different perceptions of cultural development and self-reliantly evaluate respective examples.

	Core competencies	Subject-related competencies (Music)
Acting	8. **Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective	8.1 (…) perceive copyrights differentiatingly and comment on violations.
		8.2 (…) give examples how music can support the commitment for objectives of sustainable development.
		8.3 (…) give examples for the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage of music, and commit themselves to the protection of such goods.
	9. **Understanding and conflict resolution** (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating; and contribute to conflict resolutions.	9.1 (…) demonstrate the social, pedagogical and therapeutic effects of music in conflict situations.
		9.2 (…) recognise music as a means for manipulation and develop counter-measures.
		9.3 (…) perceive music as a means of delimiting and contribute to overcoming such strategies.
	10. **Ability to act in times of global change** (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) orient their behaviour as consumers and producers of music at their own principles, on the background of a complex global music scene.
		10.2 (…) study stakeholders of other music preferences and engage in a dialogue with them.
	11. **Participation und active involvement** Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) actively and convincingly argue for their own music preferences that have been recognised as sustainable.
		11.2 (…) Students are able and willing to actively shape cross-cultural music projects.

4.2.4.3   Sample topics

The following sample topics proposed for learning units or projects don't claim to be complete or to set content priorities. They are obvious and tried topics which show the possibilities to strengthen or develop competencies of Global Development Education/ESD in music lessons (but also cross-curricular or subject-linking).

Thematic areas	Sample topics	Competencies
1 Diversity of values and living conditions: Diversity and inclusion	· Musical instruments of the world	2.3, 5.1
	· Music in the context of cultures	2.3, 3.1, 3.2
	· My music – your music	7.2, 9.3, 11.1
2 Globalisation of religious and ethical guiding principles	· Gospels and spirituals	10.2, 5.1
	· Star and fan culture	9.2, 6.1, 6.2
	· Carnival	1.1, 2.3
3 History of globalisation: From colonialism to the "global village"	· A historical-geographical map about blues, reggae, jazz, j-pop, bollywood	1.2, 2.1, 2.3
	· The musical Black Atlantic	2.3, 5.1
4 Commodities from around the world: Production, trade and consumption	· Globalisation by musical media	8.3, 6.1, 6.2
	· Transcontinental migrations and distribution of musical instruments	3.2, 7.3
	· Who owns the music?	10.1, 8.1
	· Styles of pop music in different regional contexts	4.3, 9.3
6 Illness and health	· Music and corporeality	1.1, 9.1
	· Music as a means for information about and prevention of HIV	6.2, 5.1
	· Dance and trance	1.1, 5.1, 7.2
7 Education	· The model "Guru-Shishya" as an Indian concept to teach music	1.1, 7.3, 2.3
	· Diversity of music education in heterogeneous learning groups	2.3, 5.1
8 Globalised leisure-time activities	· Global networks and music (e.g. Last.fm)	1.2, 3.2, 6.1
	· Festivals	9.1, 7.2
	· Disco as a social location	9.3, 6.2
10 Opportunities and risks of technological progress	· Cut, copy and paste: Rip-offs, remixes and cultural identity	4.2, 4.3, 8.1
	· Cultural change and loss of culture	7.3, 6.1, 10.1
	· Unlimited availability of music	1.1, 3.1, 3.2
	· Sequencing and sampling	2.1, 3.1

Thematic areas	Sample topics	Competencies
12 Mobility, urban development and traffic	· Soundscapes of global metropolises	4.2, 3.1, 3.2
	· Soundwalks: Opening up of sound spaces	8.2
	· transcultural and transnational music scene	2.3, 3.1, 3.2
13 Globalisation of the economy and labour	· Music as an economic factor: Bollywood	6.1, 9.2
	· Music in advertisement/marketing (e.g. ethnic markers)	6.1, 9.2
14 Demographic structures and developments	· Comparing music styles in different age groups and cultures	5.2
15 Poverty and social security	· Social positions of musicians in different societies	4.1, 6.1
	· Klezmer as a social commentator	9.1
16 Peace and conflict	· Music as a means of political propaganda	4.1, 6.2
	· Music as a commentator of society: Pete Seeger	8.2, 11.1
17 Migration and integration	· Music and migration: then and now	1.2, 3.1, 5.1
	· Internal emigration: Shostakowich	9.1, 9.3
	· Fusion and segregation	7.3,10.2,11.1
18 Political rule Democracy and Human Rights (Good Governance)	· Music in election campaigns	1.1, 4.2 10.2, 9.2
	· National anthems, liberations songs, protest songs	9.1
	· Schoenberg: "A Survivor from Warsaw"	
20 Global governance	· Cultural participation, autonomous access to music as a human right	11.1, 5.1
	· UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage and its significance for music	8.3.
21 Communication in a global context	· Multi-national concerts	4.2, 2.3
	· Music sponsorships	11.2, 10.2.
	· German cultural institutes	1.2, 7.1, 7.3

4.2.4.4   Competency-oriented learning unit: MUSIC IS CHANGE (form 9/10)

The competency oriented learning unit refers to music as a social practice and is based on the assumption that music-related contexts change over time. In these terms, the development of music does not describe a logical procedure from simple to complex forms, from the mediocre to the better, from monophonic to polyphonic – but more a change that leads to individual expression, depending on social and cultural circumstances.

The first part (*What do I think about music?*) is a process of reflection. At first, the students reflect on their own concept of music, which then they apply in a comparative view.

The second part (*How can I understand music in a global world?*) introduces two examples of music which are culturally, geographically and historically very different; the music samples are then to be assigned to the respective places of origin. Eventually, after the reflection of this context the students can direct their focus towards their own locations and their representative musics.

Both parts of the learning unit can also be combined with other activities of music education, e.g. with the own production or reproduction of corresponding music samples. There are only very few suggestions regarding the social and organisational forms of implementation, which highly depend on the respective situations and conditions.

Competency grid
This learning unit is meant to enhance the core competencies 1, 2, 4, 5, 7 and 10 the Curriculum Framework. The three attainment levels for the Secondary School certification (Level I) describe the expected results with regard to the performance evaluation and feedback to the students. The higher attainment levels include the lower ones. The respective general conditions, learning groups and subject-specific priorities can result in different requirements. They might have to be supplemented by subject-specific and supra-disciplinary requirements.

Specific competency	Subject-specific compe-tency	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
Students are able to (…)				
(…) realise and reflect their own stereotypes on music-related images (1a)	2.1, 5.1, 5.3	(…) recognise different visual musical forms in ima-ges and express their own associations.	(…) recognise stereotypes in the collected remarks.	(…) critically reflect eurocentric aesthetics of values (*Wertästhetik*) in music and respect other music value aesthetics.
(…) critically compare texts about music (instruments) that are based on different cultural concepts (1b)	5.3, 7,3	(…) recognise and describe differences in texts about the development of the clarinet.	(…) recognise the author's appraisals and their intentions in texts about music.	(…) reflect appraisals in texts providing information about music, recognise the underlying ideas of cultural development and find their own opinion.
(…) compare pieces of music from different cultural contexts (2a)	2.1, 5.1	(…) describe their own connotations and thoughts about the heard music examples.	(…) describe and define style characteristics of the presented music in a hearing-log.	(…) identify cultural aspects in their own connotations and music related observations.
(…) relate pieces of music to images of the places where they come from and realise music practices. (2b)	1.1, 2.1, 2.3	(…) reasonably relate the presented photos to the listening examples.	(…) use the presented pictures to associate them culturally to the listening examples, and recognise such associations.	(…) explain, based on the presented examples, the difference of music practices and expressions by referring to music parameters like sound, colour, instrumentation, melody and rhythm.
(…) relate their own personal environ-ments to music and reflect on it. (2c)	1.2, 2.1, 5.1	(…) identify music which fits to their own lifeworld and environ-ment.	(…) detect music practices in their own environment or relate them to it reasonably.	(…) use their own personal environment to critically reflect and become aware of the representativeness of music and the connec-ted ascriptions.
(…) realise that generally music is transnational and an expression of social practices, and that it should be self-eter-mined.	2.3, 4.2, 5.1, 5.2, 10.1, 10.2	(…) realise and appreciate the expression of cultural diversity in music scenes.	(…) present their own musical world and critically scrutinise it.	(…) self-reliantly opine values of musical aesthetics.

1. What do I think about music?

Classifications are important and necessary for a basic orientation in everyday life, but also problematic because they can lead to solidified attributions and often – eventually – to the consolidation of prejudices beyond the respective issue, hence to either levelling or overemphasising differences. The process of the construction of world views depends on role models and life contexts and is normally hardly reflected by the students.

Apparently, images are a good starting point, because they can reflect the images which already exist in our mind. At the same time this approach reveals our mental patterns. We can also proceed vice versa if we want to expound the problems of such mental patterns: We investigate which mental patterns are fundamental for certain text documents. The reflection of music-related world views can help to access general mental constructions, and that is why music is a key for reflective approaches of learning in the context of a globalised world. The organology is a suitable focus because its didactics uses a conscious classification.

1a World views and classifications
Didactic notes, course and tasks

The pupils make brief notes of their immediate associations about the two photos (M 1: Violinist in concert and M 2 Didgeridoo player). Then they check whether the terms they have found on the cards can be applied to the other photo and analyse whether specific statements contain judgements or prejudices. The added anticipated terms (M 3) can help the teacher to process the results or prepare an additional analysis.

By this kind of reflection, the stimulus from the photos, combined with the expected cognitive dissonance, opens access to both worlds. Differences of both subjective systems of classification can be realised and hidden mental processes can be disclosed. This happens by relating the gained realisations from one photo to the other. The discussion can disclose that we think in different categories. This can lead to surprising congruences but also to completely "wrong" results, which might eventually start to fit after contemplating for a while. A critical analysis shows that the statements include judgements, that they are based on hierarchical concepts and that they disclose stereotypes which allow conclusions to the underlying values.

The photography of Anne-Sophie Mutter has been taken in a photo studio for the press, while the photo of the didgeridoo player has been taken at the bustling harbour of Sydney.

In addition to the photos, music samples can be used (Youtube) in order to provide auditive impressions of violin and didgeridoo.

1b Ideas of cultural development
Didactic notes, course and tasks

The insights required are related to two texts about musical instruments:
- *What are the differences between the two texts (M 4), most of all regarding the authors' intentions?* (keywords)
- *Which words/text passages do directly or indirectly express value concepts?* (mark)
- The intention which the students will probably have noticed during their work on the two tasks – namely to show a continuous development process in Text 1 – is specified by the task to draft this development by using the terms of the text: from the *simple, ethnic* instrument *of native Stone Age peoples* to *more comfortable* and *simple* but still *rather primitive wind instruments* to *cultivated instruments* made of *high-quality material, artistically turned instruments* to a *flap mechanism* which enables the *unrestricted artistic use* and to the *modern, highly sophisticated and complex art instrument which gives brilliance to the orchestra*.

Irritation (problematisation of the concept of development):
- *right or wrong? justified or not?*
- *Which other developments are possible?*
- *Why does text 2 let go of such text-markers?*
- *Why do we also use (more and more) "simple" instruments today?*

The irritation of stereotypical ideas of cultural development is a first important step that has to be continued in other contexts, e.g. by transferring these findings to a textbook page (e.g. "Als die Menschen Musik machen wollten", Kemmelmeyer et al. 2012).

2. How can I understand music in a global world?
Cities, quarters and landmarks are iconographic connections of our mental maps. Consciously or unconsciously they are related to other cultural phenomena like food, clothing, climate, human beings and music. These images are fed by a multitude of sources of partly obscure origin. Either they are verified or they remain as unchecked imagination of the strange in the roam of individual inkling. In this context, the cities of the world and their different musics stand for the term *change*. Here people with different musical practices meet one another, influence one another, stay apart from one another or change themselves.

Images are visual centres for this construction and hence part of a comprehensive world of sensual experiences which include musics as auditive centres. Particularly in the 21st century the connections to their points of composition, production or context of historical formation can hardly be realised any more. As long as it is about understanding music, the three steps needed for that – from coming close – to experiencing – to knowing – are first of all taken through the disclosure of those individual latent connections that become visible in the students' spontaneous associations when images are presented to them.

Didactic notes, course and tasks

The allocation of the suggested audio samples to photos of world cities is as well linked to the place of origin of the music as to the latently connected cultural (but also music-historically connotated) symbolism.

2a

At first, three audio samples are presented which differ from each other as well by style (instrumental vs. vocal music) as by their respective contexts of cultural origin. After each listening phase, impressions and thoughts (associative hearing) are noted as an individual listening record. (*Now you will hear three music samples. Please listen first, then, afterwards, take your notes about your impressions and thoughts.*). The sequence can start with the section *Marche pour la cérémonie des Turcs*[112] from "Le bourgeois gentilhomme" by Jean Baptiste Lully, to be succeeded by the duet in the raga *Hamsadhvani* (2008)[113] and Billie Holiday's *Strange Fruit*[114]. All three pieces are not only regionally bound and can easily be identified; they also give the chance to discuss them in their respective context.

- Jean Baptiste Lully (1632–1687), Italian origin, has composed this music for a play by the author Molière (1622–1673) who, also working at the court of Louis XIV, criticised in his play the authoritarian corporate state. For the scene when Jourdain is seemingly raised in rank through a Turkish ceremony (including a sultan's entry), Lully uses musical elements of Turkish style. The instrumentation (drums, bells, pipes) but also the march form show cultural borrowing from the Janissaries music (Mehter Marsi). This correlates with a fashion in those times and documents an exotic view towards the Ottomans.

- D. Adhikary and S. Sarkar are musicians from Kolkata who interpret the raga (mode) *Hamsadhvani* with sitar and vocals (here in part). This kind of duet (jugalbandi) is very common in classical Indian music. Improvisation, virtuosity and joint parts in which the musicians respond to each other are characteristic for this form.

- In 1939, in the Café Society in New York, the US-American singer Billie Holiday sang the political and socio-critical song *Strange Fruit*, which was composed just for her. The 1930s club music, and together with it jazz, were the germ cell of the civil rights movement in the United States.

In the following discussion the students' notes are consolidated by a structured image on the board, in the categories: *associations and thoughts* and *music-related observations*.

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[112] http://www.youtube.com/watch?v=Sy-yugPw_X8, 27.10.2016
[113] http://www.youtube.com/watch?v=SjO1_BPlJ_A, 27.10.2016
[114] http://www.youtube.com/watch?v=h4ZyuULy9zs, 27.10.2016

2b

The three photographies M 5–M 7 are introduced for the following assignment:

The photos show the places of origin of the pieces of music we just heard. Allocate them to the audio samples, and give reasons for your choices.

- As the case may be, the following background information can be included in the evaluation discussion, or the students themselves can research it in the internet:
  M 5 shows the palace of Versailles which Louis XIV ordered to build (beginning in 1661) in a Paris suburb. It is more than an architectural symbol of the French absolutism and a germ cell of many artistic and musical compositions, and has become the model for many buildings all over Europe.
  M 6 shows the view of a small crossroads in the heart of Kolkata (Calcutta). Buses, advertising posters and the apparent disorder seem to be in contrast to the music which may lead the (Western) listeners to very different associations.
  M 7 shows Billie Holiday in a performance in New York's Café Society. The instruments, the audience and (of course) also the singer herself leave the impression of a metropolitan night club where live music and politics form a kind of microculture.

In the discussion musical parameters (tone, instrumentation, rhythm, melody etc.) are used to add associations to the musics and photos. Thus the images are enriched with appropriate contexts.

2c

The students are asked to form groups to select musics that are representative for their place and to discuss about it: *Please collect aspects that you consider important for a music sample which represents your place of residence/city/quarter.*

If possible this should be a project phase, with on-site visits and research, investigating the representativeness of specific musics (see Clausen, Bernd: Weltmusik – Musiken der Welt, Musikalische Globalisierung – Migration und Integration. In: DUDEN Musik, Lehrbuch S II, 2006, p. 451). The presentation of the results will again address the interplay of location/ photo and music.

Summarising discussion

The auditive and visual samples trigger specific ethnical associations and lead to their reflection in the final group discussion. It needs to be worked out that musics as social practices are mostly transnational and rarely confined to their place of origin, because they are nowadays almost always and everywhere available due to the extremely densified processes of distributions.

Questions impulses:
- What do the audio and photo samples have in common? Which connections between the music and the characteristics of the locations can you find?
- What are the roles of music scenes for the integration within society?
- What belongs to your personal image of music? Design and present a map with your keywords.

MATERIAL

M 1: Violinist in concert

© Harald Hoffmann, Deutsche Grammophon

M 2: Didgeridoo player at Circular Quay Sidney

photo: © Corbis/Paul A. Souders

M 3: Associations to M 1 and M 2 (anticipated results)

M 1	M 2
perfection	culture
concentration	tradition
passion	foreign
atmosphere	alcohol problem
self-expression	bonfire, trance, dancing
concert outfit	rhythm, body language
contest	ritual
European music culture	didgeridoo
seriousity	Aborigine
high culture	native
strain	drugs
loneliness	sounds of the wilderness
famous	originality
personality cult	concentration
marketing	body painting
industriousness	indigenous people
effort	stillness, peace
performance, achievement	sounds of nature
determined	timeless
being one with the piece of music	music in its original form
attitude	calmness, serenity
tension	absorbed in the doing
cultural asset	roots of the music
precision, perfection	authentic
successful marketing	being in the sound
endurance	overtones, resonance
high standard	archaic sound

M 4: Origin and development of the clarinet

The clarinet 1	The clarinet 2
Probably, Stone Age peoples had already had the idea to make music with a blade of grass. Maybe it was just a coincidence that someone stretched a blade of grass between both his thumbs, blew on it and thus produced a sound. Eventually, people tried to make this by and by more comfortable, and took reed or bamboo, and finally developed simple wind instruments which still were rather primitive. At some point it felt boring to be able to play single tones only, and they started to cut grip holes into the instrument. The launedda from Sardinia, e.g., had square grip holes, probably because it was much easier to cut square holes than round holes into the brittle material.	Many people already had the idea to make music with a blade of grass. Maybe it was just a coincidence that someone stretched a blade of grass between both his thumbs, blew on it and thus produced a sound.
	If you use a reed or a bamboo in addition you can build a reed instrument, on which you can play single tones. If you cut grip holes into the reed, you can play different tones. The launedda from Sardinia, e.g., has square grip holes, probably because it is much easier to cut square holes than round holes into the brittle material.
A new step of development brought a popular reed instrument with nine grip holes into existence. This was still pretty simple but absolutely appropriate for the simple dance music of the Middle Age folk: the chalumeau. At about 1700, J.Ch. Denner could cultivate this instrument. He used high-quality material (oiled boxwood) and fixed an easily playable reed to the artfully turned instrument.	From the Middle Ages we know a reed instrument with nine grip holes that was used to play dance music: the chalumeau. Instruments by J.Ch. Denner are passed down since 1700. He used oiled boxwood and attached a reed to the turned instrument.
Not before 1839 could instrument makers attach a flap mechanism to the grip holes, and since then the unrestricted artistic use was possible. In Germany, Oskar Oehler's system with more than 20 flaps ("German system") started to dominate after 1900. Since the middle of the 18th century, the modern clarinet has a firm place in the orchestra. Today we can hardly understand any more that this complex art instrument has developed from the simple ethnic instruments of native peoples. These highly sophisticated clarinets are often leading in melody, but also give brilliance and colour to the orchestra, with their trills, runs and ornaments.	Around 1839, the instrument makers attached a flap mechanism to the grip holes. This became necessary because many composers were writing pieces with semi-tone steps. In Germany, Oskar Oehler's system with more than 20 flaps ("German system") started to dominate after 1900. Since the middle of the 18th century, the clarinet has a firm place in the orchestra. It is often leading in melody and adds brilliance and colour to the orchestra.
	(inspired by school textbooks, partly effectfully intensified)

M 5: Palace of Versailles

© Picture Alliance: Rolf Richardson, Robert Harding

M 6: Crossroads in Kolkata

© Shutterstock/Alexander Mazurkevich

M 7: Billie Holliday in Café Society

© akg-images

4.2.4.5   Performance monitoring and learning-progress interviews

The continuous observation of the students on the background of the desired specific competencies and the dialogue with them are the foundation for the assessment of their performance. This will help them to realistically assess their own performance in relation to the aspired education targets, to realise learning needs and to take on responsibility for their own learning process.

The dialogue with the students gives the teachers important hints about the effectivity of the learning process, which enables them to design it in a way that individual support becomes possible.

The changing learning arrangement and different activities offer sufficient possibilities and reference points for performance assessment. They have to be attuned to the principles and criteria of the subject and to the students' state of development. Apart from the subject-specific competencies and the core competencies of Global Development Education/ESD (which have been selected for the specific learning unit), supra-disciplinary competencies have to be taken into account. In the case of the suggested learning unit such competencies may be the students' *self-reliance, cooperative behaviour in partner and team work, listening and responding to questions and consideration of their classmates* as well as improved *reflection skills*.

Apart from the participation in discussions, autonomously found solutions in the presentations allow to draw conclusions about the already acquired and enhanced competencies. The evaluation criteria are based on the subject-related and supra-disciplinary targets and requirements, but most of all on the attainment levels of the competency grid for the unit. Here not only the absolute level of the fulfilled requirement is relevant but also the individual learning progress. It is important for the performance feedback in the learning progress interviews to refer back to the competencies aimed at, about which students should be informed at an early stage.

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4.3   Secondary Level I: Field of Social Science

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*   taken unchanged from the 1st edition (2007)

4.3.1   Political Education

(taken unchanged from the 1ˢᵗ edition 2007)

Ingo Juchler

4.3.1.1   Contribution of Political Education to Global Development Education/ESD

The learning area of Global Development has to date been a field neglected both in Political Education and in political didactics. Moreover, this area has been addressed very differently in the various curricula and educational frameworks of the German federal states. Therefore its implementation currently appears to be rather arbitrary from the perspective of subject didactics.

The subject-related competencies that are introduced here, together with sample topics, should be seen as a subject-specific contribution to the acquisition of the Curriculum Framework/ESD core competencies. From this subject-specific perspective, it should be kept in mind that the learning area of Global Development can be addressed only in an interdisciplinary manner. That is why points of connection are indicated in the subject-related competencies.

With regard to the devision of the core competencies of the Framework into the competency areas **recognising**, **assessing** and **acting**, it must be pointed out from the perspective of Political Education that the ability to make a political judgement is the central competency.[115] This subject-specific competency is of outstanding importance for the entire Curriculum Framework.

Moreover, it is very important in the learning area of Global Development, where the comparison of political developments in industrial, emerging and developing countries is of special importance, to be able to shift perspectives. In the didactics of Political Education this competency is linked with the ability for expanded ways of thinking (erweiterte Denkungsart) that qualifies the specific mode of making political judgements: "The political judgement is characterised by a consensus-oriented balancing of individual self-interest with the actual or assumed interests of others, in accordance with political values." (See Juchler 2005)

Finally, regarding the core competency area of **acting** we have to, from the perspective of political didactics, point to the first principle of the Beutelsbach Consensus, the *Überwältigungsverbot*, i.e. prohibition against overwhelming/indoctrinating the students (see Wehling 1977). They should gain communication and acting competencies in the context of this learning area, and thus acquir e the ability to actively shape sustainable development. As in any normatively oriented area of studies, it is left to the individual students to decide on the basis of their political judgement either in favour of a (political) commitment, or against such a step. In either case, the connection of the learning area of Global Development/ESD to the approach "Democracy as a Global Project" (see Himmelmann 2005) is assured.

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[115] See Gesellschaft für Politikdidaktik und politische Jugend- und Erwachsenenbildung (GPJE), Nationale Bildungsstandards für den Fachunterricht in der Politischen Bildung an Schulen, Schwalbach/Ts. 2004, p. 15 f.

4.3.1.2   Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

The students are able to (…)

	Core competencies	Subject-Related Competencies (Political Education)
Recognising	1. **Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.	1.1 (…) select and apply the thematically appropriate methods of obtaining and using information.
		1.2 (…) collect information on the political and economic situation in developing and industrialised countries from print and electronic media.
		1.3 (…) independently address the issue at hand on the basis of self-collected.
	2. **Realisation of diversity** (…) realise the socio-cultural and natural diversity in the One World.	2.1 (…) describe the different political systems and structures in developing and industrialised countries.
		2.2 (…) estimate the significance of different political systems and structures with respect to the opportunities that people have to shape their societies.
	3. **Analysis of global change** (…) analyse processes of globalisation and development using the principle of sustainable development.	3.1 (…) analyse the tensions between politics and the spheres of society, economics and environment.
		3.2 (…) work out the basic political differences between particular countries.
		3.3 (…) make a comparison of the characteristic political features of particular countries and their significance for processes of globalisation and development.
	4. **Differentiation between levels of action** (…) realise levels of actions, from the individual to the global level, in their respective function for development processes.	4.1 (…) describe forms of individual political participation.
		4.2 (…) recognise the roles and significance of state and non-state actors in shaping globalisation processes.
		4.3 (…) recognise various structural levels, from local to global, for shaping globalisation processes.

	Core competencies	Subject-Related Competencies (Political Education)
Assessing	**5. Change of perspective and empathy** (…) realise, appreciate and reflect upon their own and others' values and their significance for life.	5.1 (…) become aware of their own interests with their dependence on a value system. 5.2 (…) be aware of and anticipate the interests of others. 5.3 (…) assess their own and other people's interests according to political values and take them into account when forming a political judgement.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) recognise and assess the relevance of Good Governance for sustainable development. 6.2 (…) give reasons for human rights in their various political manifestations and reflect tensions that arise through valuation differences.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) evaluate the effects of political and legal measures on various social groups. 7.2 (…) assess the significance of political and legal measures for sustainable development.

	Core competencie	Subject–Related Competencies (Political Education)
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) become aware of the significance of sustainable development in the globalisation process, and develop the ability and preparedness to take responsible political action on this basis.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating; and contribute to conflict resolutions.	9.1 (…) appreciate the significance of human rights for understanding on a global scale.
		9.2 (…) tolerate cultural differences and confrontations of interests.
		9.3 (…) contribute to conflict resolutions on the basis of compromise.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) recognise and put up with complex political issues in the globalisation process.
		10.2 (…) act in accordance with the principle of sustainable development in various political situations.
	11. Participation and active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 The students can and are willing to get involved, based on their political judgement, for sustainable development goals in various social situations.

4.3.1.3   Sample topics

The sample topics listed have been chosen for learning units or projects and do not illustrate thematic priorities. Instead, they represent topics that are obvious or have proven themselves in practice to support the development of ESD competencies in subject-specific as well as in interdisciplinary or cross-disciplinary learning units.

Thematic areas (see chapter 3.6.1)	Sample topics	Competencies*
4 Commodities from around the world: Production, trade and consumption	1. **Sugar** (agricultural subsidies, sugar beet cultivation, sugar cane cultivation, trade barriers)	**8.1**, 8.2, 11.1
7 Education	2. **Children's rights** (human rights, right to an education, basic education, education participation, Millennium Development Goals)	1.1, 1.2, 6.1, 6.2, 7.1, **7.2**
15 Poverty and social security	3. **Millennium Development Goals**	4.1, **4.2**, 4.3, 8.1
16 Peace and conflict	4. **War and peace** (examples: domestic and international conflicts, causes of war, peace and development)	9.1, 9.2, 9.3, **10.1**
17 Migration and integration	5. **Migration of population** (pull and push factors, urbanisation, flight, social conflicts)	3.1, 3.2, 9.2, **9.3**, 10.1
18 Political rule, democracy and human rights (Good governance)	6. **Good governance** (participation, rule of law, democracy, justice, human rights)	6.1, 6.2, **11.1**
	7. **Failed states** (disintegration of states, civil war, warlords, child soldiers)	2.1, **2.2**
	8. **Dictatorship vs. democracy** (Tyranny, fundamental rights, free elections, legitimacy)	3.1, 3.2, **3.3**
	9. **Non-governmental organisations** (political participation, global networks, transnational democracy)	4.1, 4.2, **4.3**
19 Development cooperation and its institutions	3. **Millennium Development Goals**	4.1, **4.2**, 4.3, 8.1
20 Global Governance	10. **Global governance** (codifying international relations, development of international institutions, e.g. International Criminal Court)	4.2, **9.1**, 11.1

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*   The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.3.1.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type.

4.3.1.4   Sample assignment: Global Governance

Working time: 60 minutes

Thematic embedding
Working about Global Governance helps students to realize that the traditional concept of governance within the confines of national boundaries is now being challenged by globalisation in the policy fields of economics, finance, security, culture and environment. At a political level, the United Nations constitute a global political forum for the development of a world policy order, known as Global Governance. The students recognise that the political strategy of Global Governance consists of imposing limits on the behaviour of individuals, organisations and corporations by means of a framework of rules. The goal is to codify international relations under the rule of law, so that the various actors in political conflicts follow standard norms of behaviour. As an example, the students learn about the establishment of the International Criminal Court (ICC) for the prosecution and punishment of serious human rights violators.
The tasks/test example is focused on the discussion of the establishment of the ICC as an exemplary case of the political concept of Global Governance. The following historical stages of the idea of an International Criminal Court and its implementation provide information for teachers.

Historical stages of the idea of an International Criminal Court
1945/46: The International Courts of Justice of Nuremberg and Tokyo take legal action against the major war criminals of the Second World War.

1993 and 1994: The two criminal courts for the former Yugoslavia and Rwanda are set up by the UN Security Council, in which the severe violations of humanitarian international law in former Yugoslavia and the massacres in Rwanda are to be legally prosecuted. The establishment of these two criminal courts helps move the plan for a permanent International Criminal Court forward.

1998: The Rome conference for the establishment of the International Criminal Court is opened by the Secretary General of the United Nations, Kofi Annan. After long negotiations, the conference votes on the statute of the International Criminal Court. It is adopted with 120 countries voting "yes", seven voting "no", and twenty-one abstaining. Those voting against acceptance of the statute include, by their own admission, the United States, China and Israel.

1.07.2002: The Rome Statute of the International Criminal Court enters into force, establishing the Court. Ninety-nine countries, including all EU member states except the Czech Republic, have now ratified the Statute.

03/2006: The first proceedings begin before the International Criminal Court: Thomas Lubanga is forced to answer to charges of war crimes carried out in the territory of the Democratic Republic of the Congo, where he was the leader of a political and military movement.

Tasks

1. Describe the carcature on the implementation of the International Criminal Court, and explain what it says.

2. Summarise the positions and corresponding justifications of the foreign policy representative of the European Union for the establishment of the International Criminal Court.

3. Explain the American position against the International Criminal Court, and examine what this says about the self-image of the United States.

4. Finally, evaluate the establishment of the International Criminal Court in connection with the efforts toward a policy of Global Governance.

MATERIAL

M 1: "World Cop vs. International Criminal Court"
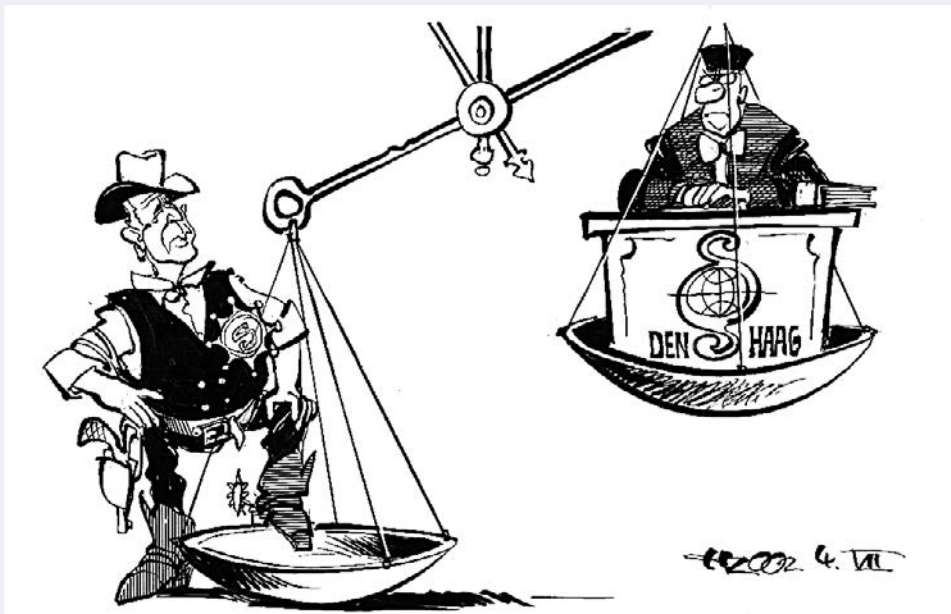
Horst Haitzinger, 7.04.2002

Note: The headquarters of the International Criminal Court is in The Hague, the Netherlands.

M 2: The European perspective

(…) We are now witnessing how a new era in international law begins. (…) The entry into force of the Statute of Rome underscores worldwide determination to bring to justice those who commit the most heinous crimes. Both, the victims and the perpetrators, deserve this determination regarding genocide, crimes against humanity and war crimes. (…) We have supported the creation of a Global Court because it corresponds completely with the principles of justice and human rights which we value, and which supports them. (…) We must ensure that such crimes become less probable in future by inducing a firm expectation that the rule of law will prevail. We must end the era of impunity in which, too often, the victims are forgotten and the perpetrators remain unpunished.

Javier Solana: Decidedly Against Genocide, *Süddeutsche Zeitung* 2. 07. 2002.
Javier Solana was High Representative for foreign and Security Policy of the European Union from 1999 until 2009.
http://sueddeutsche.de/politik/internationaler-strafgerichtshof-entschlossen-gegen-den-voelkermord-1.641012,
27. 10. 2016

M 3: U.S. perspective

(…) To be sure, human rights violations, war crimes, genocide, and torture have so disgraced the modern age and in such a great number of different places that the effort to interpose legal norms to prevent or punish such outrages does credit to its advocates. The danger lies in pushing the effort to extremes so that we face the risk of substituting the tyranny of governments for that of judges; historically, the dictatorship of the virtuous has often led to inquisitions and even witch-hunts. (…)
For example, can any leader of the United States or of another country be torn before international tribunals established for other purposes? (…) Most Americans would be amazed to learn that the International Crimal Tribunal for crimes in the former Yugoslavia, created at U.S. behest in 1993 to deal with Balkan war criminals, had asserted a right to investigate U.S. political and military leaders for allegedly criminal conduct (…)

Henry Kissinger: The Pitfalls of Universal Jurisdiction, Foreign Affairs, 07/08/2001.
Henry Kissinger, son of German emigrants, is a political scientist and was an adviser to U.S. presidents J.F. Kennedy,
L.B. Johnson, R.M. Nixon and G.R. Ford, and served as U.S. Secretary of State under Nixon, 1973–1977.

Connection to competencies and expected responses

Tasks	Connection to competencies	Fields of requirement (s. chapter 4.0)	Expected response (intermediate level)
1	1. 2–3	FoR I/II	The students can correctly describe the central statement of the caricature in its essential features (the USA, as the dominant world policeman, tries to hamper the establishment and work of the International Criminal Court).
2	1.3, 5.2	FoR II	The students correctly represent at least two of the following positions in their summary: · the International Criminal Court provides justice for victims and perpetrators of genocide, crimes against humanity, and war crimes · its establishment corresponds to the principles of justice and human rights, and strengthens them · punishment makes such crimes less probable · the era of impunity and the lack of protection for victims must be ended.
3	1.3, 5.2, 6.2	FoR II	The students recognise at least in essence · the American position of rejection, based on the fears that American political or military leaders could be called to account before international tribunals · that the American position expresses a superior understanding of law.
4	5.1–3, 6.1, 7.1–2, 9.1	FoR III	The students come to a logically sound assessment of the implementation of the International Criminal Court (in at least two or three points), and place these in the context of Global Governance.

4.3.1.5 Bibliography

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4.3.2 Geography

(taken unchanged from the 1st edition (2007)
Dieter Böhn[116]

4.3.2.1 Contribution of the subject Geography to Global Development Education/ESD

The subject Geography deals with the earth, its structures and processes that have a spatial effect or can be differentiated in space. In this respect the "earth" is primarily understood to be a three-dimensional surface which is studied on different levels of scale, from small scale sublocal to the global level: "the special contribution of the school subject Geography for the opening up of the world lies in the engagement with the interrelations between nature and society in spaces of different type and size."[117] Geography as a school subject is centering the earth sciences (geology, climatology etc.), even more important is its function as a bridging subject between natural sciences and humanities.

Geography therefore plays a very essential role at school for Global Development Education/ESD. It covers topics such as "One World", "Globalisation/Global relations and interdependencies", "Developing countries", "Central problems of global change" (climate change, soil degradation, freshwater scarcity and pollution, demographic evolution and the world food problem, job displacement, global development disparities), "Sustainable development" and "Ecological capacity". Over and above that, cross-curricular connections can be established to other subjects in this thematic area to enable interdisciplinary learning.

Global Development is primarily a socio-economic process encompassing the dimensions economy, Social Affairs, politics and environment. Its examination departs from differentiating geographic areas according to their development and is directed towards an increasing interrelation of these areas in a concentrated global network in order to derive options for decisions and responsibilities for spatially sustainable actions. All time dimensions (historical causes, current situations and processes, and future-oriented development potentials) are included in the examination. Along with the events that can be studied through the lens of politics or sociology, location and especially the environment potential (e.g. climate, natural resources, and risks of natural disasters) play a vital role.

Applying sustainable development as a guiding principle requires that the use of socio-economic and particularly natural resources follows principles of global equity and justice, so that the coming generations may lead decent lives made possible by the sustainable lifestyles of the present generation.

Geography-specific competencies concerning Global Development Education/ESD play a significant role in all three competency areas: recognising, assessing, and acting.

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[116] Prof. Dr. Dieter Böhn, Geographic Institute, University of Würzburg in collaboration with: Prof. Dr. Karl-Heinz Otto and Prof. em. Dr. Eberhard Kroß, Geographic Institute, Ruhr University Bochum; Jörg-Robert Schreiber, Landesinstitut Hamburg (regional teacher training institute) and Dr. Margit Colditz, Landesinstitut Sachsen-Anhalt (regional teacher training institute)

[117] Deutsche Gesellschaft für Geographie (2006): Bildungsstandards, p. 2

Recognising consists primarily of analysing the current socio-economic and natural potential by using the available tools (maps, aerial and satellite photographs, statistics, graphics and scientific reports). The competency areas of "recognition/methods", as described in the *Bildungsstandards im Fach Geographie* (educational standards for Geography; Deutsche Gesellschaft für Geographie 2006, p. 11–12) may be helpful, since they consider the interactions between geofactors of the "system earth" and human interventions in the earth's geo-ecological systems. In this way the key objectives of the subject Geography stated in the educational standards (op. cit. 2006, p. 2) can be achieved: insight into the interrelationship between natural conditions and social activities in different spaces of the earth and a resulting competency of acting that is based on the "International Charter on Geographical Education" (IGU 1992).

Assessment starts with the assumption that both, geographically diverging natural conditions and regionally diverse culturally specific systems of value, lead to different perceptions, and especially to a variety of alternative actions among the people acting in these spaces. In Global Learning, we must therefore assume that value systems comprise both globally uniform values (e.g. the right to sustainably use the spatial potential to secure a livelihood) and very different lines of action that depend on the region. Thus special consideration should be given to the prevailing living and economic conditions (e.g. to enable sustainable strategies of action which will be accepted by the given culture), though global values should at least be broached in the context of differently utilizing the basis of existence in a region.

Acting that results from the ability and willingness to behave in a manner that is at the same time effective and appropriate (for a given space) is the essential goal of geographical education and usually termed "spatial action competency" (*raumbezogene Hamdlungskompetenz*). "Appropriate" in the context of Education for Sustainable Development means: to coincide with the guiding principles internationally agreed upon for sustainable development. "The value-oriented fields of activity 'environmental protection' and 'intercultural/international communication in a global world' that lead to sustainable development principles play a very important role" (Bildungsstandards op. cit., 2006, p. 16). Active learning in the classroom, directed towards spatial effects, is only possible to limited extend. In Geography acting competencies are developed by recognising different spatial potentials, restrictions and conflicting objectives and by evaluating current situations and developing possible solutions. Geographical teaching materials, digital simulation games, and role playing in the class offer a variety of future-oriented activities. Acting in the learning process can have an effect on the students' own lifestyle, for example on sustainable consumer behaviour. The Geography classroom is also fertile ground for perspectives, opinions and activities centred on remote regions (partnerships with other schools, campaign participation, and aiding in development projects or [natural] disaster help campaigns), giving students motivation for sustainable action.

Acting geographically means more than focusing on a particular region. It should also include the global perspective and take into account interaction between different regions. Sustainable development is a global task and can only be moved forward on a worldwide scale.

4.3.2.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

Students are able to (…)

	Core competencies	Subject-related competencies (Geography)
Recognising	**1. Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.	1.1 (…) to apply topographical orientation skills and can put globalisation and development issues into a spatial context.
		1.2 (…) integrate environmental and socio-economic working techniques and lines of thinking.
		1.3 (…) use text documents as well as maps, graphics and statistics.
	2. Realisation of diversity (…) realise the socio-cultural and natural diversity in the One World.	2.1 (…) recognise the interaction of environmental and human-geographical factors.
		2.2 (…) analyse environmental and social potentials of the space and recognise diversity as a development benefit.
		2.3 (…) grasp the different risks caused by natural catastrophes and economic utilisation (vulnerability).
	3. Analysis of global change (…) analyse processes of globalisation and development using the principle of sustainable development.	3.1 (…) apply the guiding principles of sustainability to processes of spatial development.
		3.2 (…) analyse effects of globalisation in different regions of the earth.
	4. Differentiation between levels of action (…) realise levels of actions, from the individual to the global level, in their respective function for development processes.	4.1 (…) describe (by examples), the dependency of individual consumers in worldwide production networks and their possibilities to contribute to changes.
		4.2 (…) recognise communal changes influenced by globalisation processes.
		4.3 (…) analyse the different roles of individual states in development cooperation.
		4.4 (…) represent (by of examples) the effects of the way transnational companies do business.

	Core competencies	Subject-related competencies (Geography)
Assessing	**5. Change of perspective and empathy** (…) realise, appreciate and reflect upon their own and others' values and their significance for life.	5.1 (…) comprehend different views and conceptions of the world by changing perspective. 5.2 (…) contemplate their own and unfamiliar values in the analysis of conflicts and development issues.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) research and assess the effects of different development strategies. 6.2 (…) evaluate economic interventions in the environment against the backdrop of their ecological and social sustainability. 6.3 (…) become aware of the varying emphasis given to human rights and take a stand.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) critically appraise the scientific and technical methods of increasing profits with respect to their benefits and associated risks. 7.2 (…) compare the intentions of international division of labour with its effects. 7.3 (…) analyse spatial planning measures to overcome underdevelopment and evaluate their sustainability.

	Core competencies	Subject-related competencies (Geography)
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) recognise the task of preserving global public goods such as climate, water and biodiversity as shard responsibility. 8.2 (…) use the possibilities of solidarity with people who are affected by natural disasters, wars and poverty. 8.3 (…) scrutinise the sustainability of their own lifestyles.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating and contribute to conflict resolutions.	9.1 (…) analyse spatial conflicts of interest and develop conflict management ideas.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) apply complexity reduction models and assess their explanatory power. 10.2 (…) outline the contradictions of analyses, development strategies and prognoses using examples from their own lifeworld and develop appropriate forms of behaviour.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) develop personal sustainability principles and base their actions upon them. 11.2 (…) give arguments supporting their possible commitment for chosen sustainable activities and projects.

4.3.2.3   Sample topics

The sample topics listed have been chosen for learning units or projects and do not illustrate thematic priorities. Instead, they represent topics that are obvious or have proven themselves in practice to support the development of ESD competencies in subject-specific as well as in interdisciplinary or cross-disciplinary learning units.

Thematic areas	Sample topics	Competencies*
1 Diversity of values, cultures and living conditions	1. **Living in differently developed places in the world**	2.1, **2.2**, **5.1**, 5.2, 6.3, 9.1
8 Globalised Leisure	2. **Travelling in developing countries** Tourist regions: Analysis of economic and social development, use of resources and cultural effects	**1.2**, 2.2, **2.3**, 3.1, 3.2, 4.2, 4.3, 4.4, 5.1, 5.2, 6.1, 6.2, 6.3, 7.3, **8.3**, **9.1**, 11.1
4 Commodities from around the world: Production, trade and consumption	3. **Coffee – enjoying at the producers' expense?** Production conditions, world trade and consumption 4. **Apples from New Zealand or from the home region?**	1.2, 3.2, **4.1**, 4.4, **7.1**, **8.2** 2.2, 3.2, **4.1**, **7.1**, 8.1, **8.3**, 11.1
5 Food and agriculture	5. **Food for a growing world population** Effects of scientific methods to increase yields and farming methods adapted to securing the food supply 6. **Cash crops or subsistence economy?**	2.1, 2.2, 3.2, 4.1, 4.2, 4.3, **4.4**, 5.2, 6.1, **6.2**, **7.1**, 7.3, 8.1, 10.2 2.2, 3.1, **3.2**, **6.1**, 7.1, 9.1
12 Mobility, urban development and traffic	7. **Metropolisation and fragmentation of cities** (primarily in developing countries) 8. **Sustainable transport infrastructures** e.g.: Rail vs. Road 9. **China's migrant workers** social proletariat or the force behind socio-economic reforms in rural regions	**3.1**, 3.2, **4.2**, **6.1** **3.1**, **6.1**, 6.2, 9.1, 11.1 2.2, **3.2**, 5.2, **6.1**, **6.3**
13 Globalisation of the economy and labour	10. **Free trade zones – a sustainable motivation for development?**	**3.1**, **3.2**, **4.3**, **4.4**, 6.1, 8.2
4 Commodities from around the world: Production, trade and consumption	11. **Globalisation in the sugar bowl**	**3.2**, 4.1, **7.1**, 7.2
14 Demographic structures and developments	12. **"You shouldn't have any more children" – "You have to have more children"** Population policies in developing and industrialised countries	**4.3**, **5.1**, 5.2, 6.1, **10.1**, 11.1

*   The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.3.1.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type

Thematic areas	Sample topics	Competencies*
15 Poverty and social security	**13. Poverty as cause and result of environmental degradation** examples: · soil degradation in Nepal · desertification in the Sahel · deforestation in Madagascar	**2.1**, **2.3**, 3.2, 6.1, **6.2**, 8.2
	14. Poverty reduction by forced economic growth or participative development approach? (China and India for instance)	2.2, 3.2, **4.3**, **6.1**, 6.3, 7.1, 7.3
17 Migration and integration	**15. People leave their homes** African refugees make their way to Europe	3.1, **3.2**, 4.2, 4.3, **5.1**, 5.2, 6.3, **8.2**, 9.1, 10.2
	16. Segregation and integration of migrants	3.2, 5.1, **5.2**, 6.1, 6.3, 8.2, **9.1**
19 Development cooperation and its institutions	**17. Development strategies – strategies to overcome development problems** examples of development cooperation	2.2, **4.3**, 5.2, **6.1**, 7.1, **7.3**

4.3.2.4   Sample assignment: Galápagos Islands

The tasks are independent of previous class exercises or projects containing similar subject matter. Basic geographical knowledge and skills are a prerequisite, just as core competencies of Global Development Education/ESD and the ability to follow sustainable development principles.

Students have 60 minutes to complete this exercise/test. The tasks are based particularly on thematic area 8 (Globalised leisure-time activities).

Galápagos: Natural World Heritage Site in danger
The unique flora and fauna of the Galápagos Islands, dubbed the "living laboratory of evolution", are extremely vital to humankind. Their uniqueness has also led to rapid tourism and population growth and increased well-being on the islands. Since there are already problems, the issue of restricted capacity must be considered and the challenge faced under what conditions sustainable development will be possible.

Tasks:

1. Use the materials provided and design a sheet (approximately half a page) containing information for German tourists on:
   a) the size and location of the Galápagos Islands
   b) the climate in July–August
   c) tourist attractions

2. Present the development of population and tourism figures and examine the reasons.

3. Discuss which opinions (see M 5) the Ecuadorian government should take up or reject when aiming at a sustainable development.

MATERIAL

M 1: Location of the Galápagos Islands

Source: Cornelsen Verlag GmbH

M 2: Climate diagram and climate profiles of the Galápagos Island

Puerto Ayora, Isla Santa Cruz
Galápagos, Ecuador
0°45'S/90°18'W

6 m ü. M.

T = 24°C
N = 607,2 mm

Source: Heck 2005
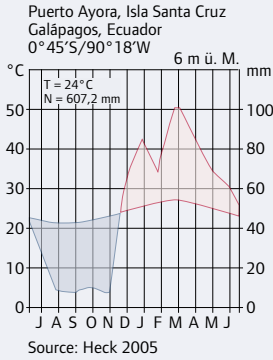
**Dry and cold season
(June–November)**

1490 m

*Southeast-trade
wind*

W

warm air

fog

fog

E

volcano

temperature inversion

200 m

200 m

cold air

185 m

0 m

0 m

*cold South-
Equatorial Currrent*

Galápagos platform

Deep sea
until −4000 m
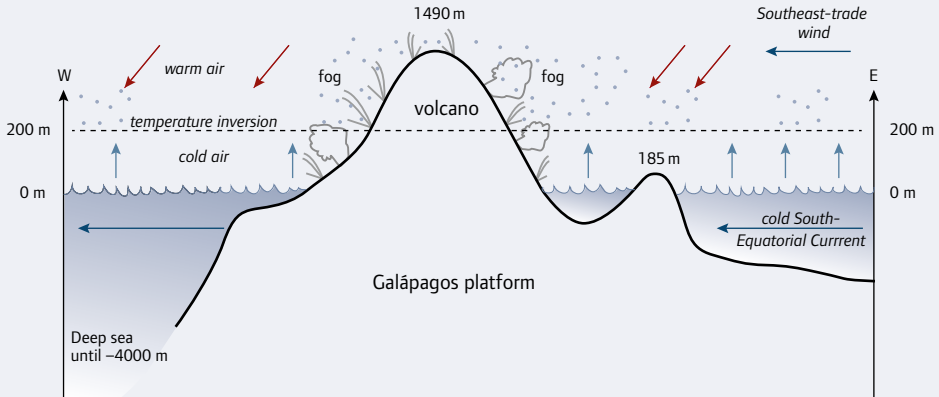
**Warm and wet season
(January–April)**

1490 m

*Southeast-trade
wind*

W

E

volcano

200 m

200 m

warm air

185 m

0 m

0 m

warm Panama Current

Galápagos platform

Deep sea
until −4000 m
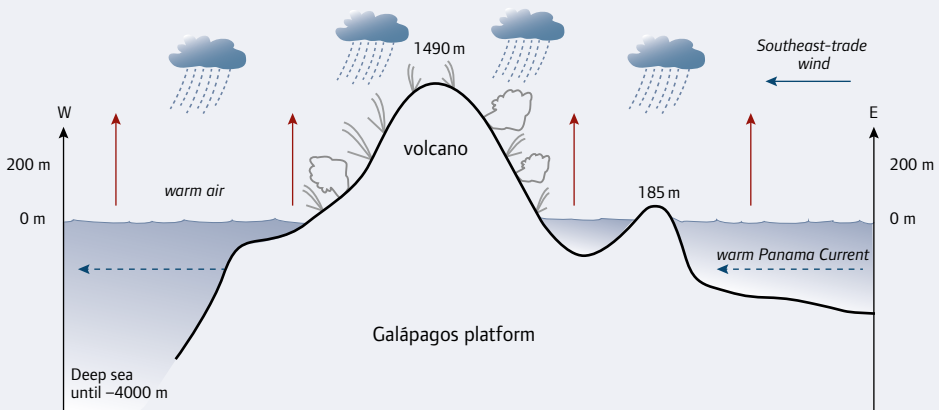
Source: K.-H. Otto

M 3: World Heritage Galápagos

The Galápagos Islands are a group of about 120 islands that became famous for their over 1,300 endemic species of plants and animals. "Endemic" means that they are unique to the Galapagos, sometimes to only one single island, because they have adapted to that particular environment.

Conditions are unfavourable for humans; for example, water is scarce. That is why the Galapagos Islands remained sparsely settled even centuries after their discovery. Over 100 islands are still unpopulated.

In 1959 the Galápagos Islands were declared a protected area, with only three larger places and some agricultural land excluded from this designation. In 1979 the group of islands was declared a UNESCO World Heritage Site; their destruction would be an irreplaceable loss for all of humankind. Being on the World Heritage list is a great honour. This attracts tourists from all over the world, which has led to a considerable inflow of money for the islands.

M 4: Tourists and residents

Year	Tourists	Residents
1980	3,000	6,000
1985	11,000	7,000
1990	25,000	10,000
1995	40,000	15,000
2000	56,000	18,000
2005	86,000	27,000

Source: E. Kroß, geographie heute (2004), no. 25, vol. 225, p. 31, supplemented

M 5: Tourism on the Galápagos Islands – pros and cons

The government of Ecuador passed strict laws to protect the islands. Opinions on the decision vary:

Hotel owners:
The residents did not take the incentive to protect the delicate environment until tourists discovered the islands and started coming in ever-increasing numbers. Before this happened, the Galapagos tortoise had been just about wiped out. So far the rare animals have not been disturbed by the visitors. Tourism should be allowed to increase.

Entrepreneurs whose ships bring the tourists to the islands:
Up until now, the ships were only allowed to drop anchor at a few of the islands. If we could spread out the visitors over more of the islands, the number of tourists could be increased significantly so that a lot of people could have the opportunity to earn money.

Tour guide:
Tourism is the main source of income on the islands. This is because tourists who want to see the flora and fauna only have access to the islands under the condition that they are accompanied by a resident guide. Guided tourism not only creates jobs for us, but preserves the uniqueness of the islands. An increase of tourists would increase the opportunities to earn money. There is however the risk that too many tourists could scare away the animals, which would consequently decrease tourism.

Ecuadorians from the mainland:
Tourism increased significantly in the last few years. Subsequently people moved to the islands to seek work and the opportunity to make a good living. A lot of people don't think it is fair that the government has now put a cap on the number who can move there. The majority of the islands still remain undeveloped for tourists.

Expected response

Tasks Fields of Requirement (FoR), (see chapter 4) Competencies (see chapter 4.3.2.2)	**Expected response** (intermediate level)
The students are able to (…)	
Task 1 (FoR I and II) *Competencies* 1.1, 1.3	1.1 (…) to apply topographical orientation skills and can put globalisation and development issues into a spatial context. 1.3 (…) use text documents as well as maps, graphics and statistics. The information sheet created by the pupils should contain (largely) correct data as to size and location of the Galápagos Islands. The following are expected: · located in the Pacific on the equator and approximately 1,000 kilometres from the South American coast/Ecuador · average temperature in July–August is a bit above 20 °C, dry (only 20 mm rainfall per month) and foggy above an altitude of 200 metres · over 1,300 types of endemic plant and animal species under protection and declared a World Heritage Site by UNESCO.
Task 2 (FoR I and II) *Competencies* 1.3, 2.2	1.3 (…) use text documents as well as maps, graphics and statistics. 2.2 (…) analyse environmental and social potentials of the space and recognise diversity as a development benefit. (…) give largely correct responses on the topics of: · population growth and the more rapid increase in tourism · the relationship between the two developments
Task 3 (FoR III) *Competencies* 2.3, 3.1, 6.2, 9.1	2.3 (…) grasp the different risks caused by natural catastrophes and economic utilisation (vulnerability). 3.1 (…) apply the guiding principles of sustainability to processes of spatial development. 6.2 (…) evaluate economic interventions in the environment against the backdrop of their ecological and social sustainability. 9.1 (…) analyse spatial conflicts of interest and develop conflict management ideas. It is expected that the students can (generally) correctly evaluate the four opinions against the backdrop of the guiding principle of sustainable development and give reasons for their suggestions: · The hotel owners' suggestion to increase tourism can only be given limited consent under the condition of strict compliance with nature conservation legislation. · The demands of the ship entrepreneurs to develop more islands for tourism should be recognised as non-sustainable. · The argument of the tour guide can be agreed with from a sustainability perspective. · The demand to deregulate immigration to the islands must consider the short-term positive social effects against the long-term damage.

4.3.2.5   Bibliography

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4.3.3   History

Elisabeth Erdmann, Bärbel Kuhn, Susanne Popp, Regine Ultze

4.3.3.1   Contribution of the subject History to Global Development Education/ESD

The school subject History develops the historical dimension of the human existence by giving access to the political, social, economic, ecological and cultural change, which has always determined human life and which is the foundation of presence and future.

History education contributes to the acquisition of competencies which enable the students to understand and evaluate past events, processes and structures in the fabric of their direct and indirect causes as well as of their intended and unintended consequences in the context of specific spatiotemporal conditions. Thus it illustrate exemplary possibilities and limitations of human activities and the interrelation of individual, local, regional, national and global levels of action.

For the school subject History, we don't have nationally valid KMK standards so far. For several years, though, professional didacts have been discussing different competency models.[118] Even though most of the federal states' curricula have been requiring the acquisition of historical competencies, there is still no consensus in view about their modelling, interaction, delimination – as well from one another as from supra-disciplinary or other subject-specific competencies – and last not least about the valid measurement of historical competencies.

History as a school subject is closely connected to other human, social and cultural sciences. It opens up the historical dimension of past, present and future phenomena in Global Development Education/ESD, which is indispensable for their understanding.

On the one hand, the school subject History supports the development of the core competencies of Global Development Education/ESD by working with the contents from the thematic areas of the Curriculum Framework. On the other hand, the subject History makes it possible to acquire specific competencies which enable the students to elaborate these contents and to appropriately deal with them. These competencies are (among others) related to:

[118] To be mentioned are some German examples of the group "FUER-Geschichtsbewusstsein":
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the models of Michael Sauer (2006): Kompetenzen für den Geschichtsunterricht. Ein pragmatisches Modell als Basis für die Bildungsstandards des Verbandes der Geschichtslehrer. In: Informationen für den Geschichts- und Gemeinschaftskundelehrer 72, p. 7–20;
Pandel, Hans-Jürgen (2005): Geschichtsunterricht nach Pisa, Schwalbach/Ts.;
Jeismann, Karl-Ernst (1998): Geschichtsbewusstsein als zentrale Kategorie der Geschichtsdidaktik. In: Jahrbuch für Geschichtsdidaktik 1, p. 1–24
The editors thank Christian Spieß for his feedback on competence orientation in the school subject History

- the adequate treatment of historical sources
- the critical treatment or deconstruction of historical presentations
- the readiness and ability to adopt historical perspectives and to make judgements and evaluations from them
- insight into the working methods of historians and into the epistemological foundations of this discipline.[119]

This particularly applies to the historical dimensions of
- globalisation and its predecessors including eurocentric perspectives and prejudices
- the asynchronous development of nations and world regions in which short-term and long-term processes have to be differentiated
- the diversity of moral value concepts, cultural identities and living conditions
- conflict situations and peace work in regional and supra-regional contexts
- the migration of people and commodities, knowledge and ideas (including religious concepts)
- and the challenges of sustainable development.

From the subject History many connections arise to other school subjects, which enables cross-curricular and subject-linking education in this learning area. History learning helps us to understand that the dimensions of politics, society and culture, economy and environment are equivalent and closely interlinked. It is therefore important to synchronously and diachronically arrange specific historical epochs and historical spaces in supra-regional and global networks in order to enhance competencies for sustainable development.

Orientation at the principle of sustainable development requires a historical consciousness which connects competent interpretations of the past with present experiences, having the future in view and the readiness to accept responsibility. As regards content it is very important to differentiate between intended and unintended consequences of human activities as well as between short-term and long-term perspectives of development and inspection with a critical view on the concept of progress. Furthermore, history education contributes to raising the students' awareness for the risks of deterministic patterns of thinking, of polarising argumentation and simplifying interpretations.

The following subject-specific principles, which are addressed by the subject-related competencies, are important for the three competency areas of Global Development Education/ ESD *Recognising – Assessing – Acting*:
- Source orientation
- Reference to the presence
- Historical alterity
- Multiperspectivity
- Controversy
- Multicausality.

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[119] Against the background of the different competency models, these aspects constitute a minimal consensus regarding the competencies that should be acquired in the subject History

Recognising is mainly targeted at the critical analysis of complex interrelationships of continuity and change. Past and present options and limits of human beings in individual, local, regional, national and global contexts have to be reflected. This is done by using the competencies which can be acquired on the basis of the historical method by analysing different historical sources and by working with subject-specific tools (e.g. historical maps, statistical data, charts, graphs and figures, reference books, historical presentations from simple factual texts to scientific papers). The interdependence between political, socio-cultural, economic and possibly also ecological factors of historical change is being analysed and multiple causes, multiple and controversial perspectives are thus emphasised as principles of historical thinking and learning.

Assessing starts with the realisation that the diversity of the human living conditions and of culture-specific value concepts is connected to different perceptions and options. Understanding them needs more than just knowledge but also empathy or the willingness to change one's perspective. Assessing in a global and historical context requires – on the one hand – insight and willingness to comprehend and respect the huge diversity of historically determined identities and mentalities, cultural patterns and normative convictions. On the other hand an obligatory orientation at universal values is required, which is based on the respect for human rights and targeted at safeguarding a tolerant and peaceful coexistence.

Acting on the basis of historical competency most of all means the readiness to deal with the present and future challenges and requirements in a historically conscious way, i.e. with a critical knowledge about past human experiences. The understanding that every single person is part of a historical process supports the readiness to be confronted with the question of one's own individual responsibility within global interdependencies. Hence, acting also includes the willingness to actively form one's own lifeworld and particularly to struggle for sustainable development, cooperative conflict solving strategies, the reduction of stereotypes and enemy images, against the accelerating destruction of natural resources and against all kinds of misuse of history. The recognition and evaluation of complex historical contexts not only results in an openness for the chances and risks of the accelerated dynamics of global interconnection, but also in the readiness to stand up for the protection of valuable cultural assets and natural resources.

A global and historical orientation for action means – in addition to an individual, local, regional, national or macro-regional approach – to develop global perspectives and to take into account the interdependencies between the different levels. In this way globally oriented historical thinking makes a significant contribution to Global Development Education/ESD.

4.3.3.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

The students are able to (…)

	Core competencies	Subject-related specific competencies
Recognising	1. **Acquisition and processing of information** (…) acquire information on topics of globalisation and development and process it topic-relatedly.	1.1 (…) to find and critically select historical sources for their topic on global development (texts, photos, films, maps, graphs, statistics and modern media).
		1.2 (…) use places out of school like museums and exhibitions, archives, libraries, memorials or monuments to acquire information on issues of globalisation and sustainable development.
	2. **Realisation of diversity** (…) realise the socio-cultural and natural diversity in the One World.	2.1 (…) understand historical-cultural phenomena like jubilees, festivals, customs or symbols, but also monuments and memorials as expressions of the collective identity and compare them transculturally.
		2.2 (…) realise the diversity of mentalities, cultures and living conditions as expressions of historically determined differences regarding human conditions and options.
		2.3 (…) point out the potentials and challenges of cultural diversity with historical examples.
		2.4 (…) understand the necessity of multi-perspective historical thinking for overcoming ethnocentric prejudices in the One World.
		2.5 (…) present examples for historical changes of the natural environment.
	3. **Analysis of global change** (…) analyse processes of globalisation and development using the principle of sustainable development.	3.1 (…) analyse historical examples for target conflicts between the claims of politics, society, economy and environment and their significance for the present situation.
		3.2 (…) study and discuss from a historical perspective questions of technological progress and economic growth against the background of the principle of sustainable development.
		3.3 (…) analyse historical examples for the significance of technological preconditions with regard to traffic and communication against the background of the principle of sudstainable development.
	4. **Differentiation between levels of action** (…) realise levels of actions, from the individual to the global level, in their respective function for development processes.	4.1 (…) analyse historical examples and compare the scope of action for individuals, social groups, political organisations and trans-regional allies.
		4.2 (…) analyse historical examples with regard to the complexity of cross-spatial developments on different levels – from the individual to the global community.
		4.3 (…) realise the historical change towards supranational institutions and "global players".

	Core competencies	Subject-related specific competencies
ASSESSING	**5. Change of perspective and empathy** (…) realise, appreciate and reflect upon their own and others' values and their significance for life.	5.1 (…) realise and reflect the influence of value concepts, changes of values and emotional factors in the past and in the presence.
		5.2 (…) use historical examples to differentiate between contemporary and current measures of value.
		5.3 (…) become aware of the limitations of their own point of view and expand it by a synchronical and diachronical change of perspective.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orienting at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) include the historical background and future perspectives in the discussion of globalisation and development issues.
		6.2 (…) investigate the historical change of the relationship between man and the environment and include the insights acquired in comments on globalisation and development.
		6.3 (…) comment on the tension between culture-specific and universal standards by taking their historical conditionality into account.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), taking into account diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) place different development projects in a historical context and estimate their respective short term and long term effects.
		7.2 (…) reflect the influence of historical experiences and historically determined identities on the assessment of development projects.

	Core competencies	Subject-related specific competencies
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) accept the individual and collective responsibility for the protection of global public goods (e.g. raw material, climate, water) as a historical task in the presence and future.
		8.2 (…) differentiate between past and present options of solidarity with people who are in distress (e.g. poverty, war, natural disasters) and develop and support own options.
		8.3 (…) open themselves for personal alternatives of sustainable ways of living when being confronted with global change and the historical effects of certain lifestyles.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating and contribute to conflict resolutions.	9.1 (…) investigate the historical background of current conflicts from different perspectives by analysing various reasons and eliminate in discussions barriers of understanding which are caused by biased views.
		9.2 (…) use historical examples to demonstrate possibilities of communication, cooperation and conflict avoidance in the past and presence and deduce reasonable options for their personal approaches.
		9.3 (…) assess the role of historical self-concepts and historical identities for individual and group communication and use this understanding for mediation processes.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) accept the fundamental openness of the historical process for their own thinking and acting.
		10.2 (…) strengthen the ability to accept open and conflicting or ambiguous situations by changing perspectives and analysing different reasons when working with historical sources.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) argue historically to support human rights and sustainable development.
		11.2 (…) set personal objectives for the strengthening of human rights and sustainable development, based on historical insight, and contribute to their implementation.

4.3.3.3   Sample topics

The sample topics listed have been chosen for learning units or projects and do not illustrate thematic priorities. Instead, they represent topics that are obvious or have proven themselves in practice to support the development of ESD competencies in subject-specific as well as in interdisciplinary or cross-disciplinary learning units.

Thematic areas	Sample topics	Competencies
1 Diversity of values and living conditions: Diversity and inclusion	· Alexander the Great and Hellenism; · the Roman Empire; · Life in the Near East crusader states; · modern metropolises; · migration from and to Europe;	1.1, 1.2, 2.1, 2.2, 2.3. 3.3, 4.2, 5.2, 6.1, 8.1, 9.1, 9.2
2 Globalisation of religious and ethical guiding principles	Expansion of · the world religions, · the ideal of enlightenment, · the model of the nation state, · the ideas of human and civil rights, · democracy and liberalism since the French revolution;	1.1, 1.2, 2.1, 2.3, 3.1, 4.3, 5.2, 5.3, 6.3, 8.1, 9.3, 10.2, 11.1
3 History of globalisation: From colonialism to the "global village"	· European expansion and Europeanisation of the earth; first and second stage of colonialism; · imperialism; · de-colonisation and independence movements; · development of transnational and supra-national institutions and blocks (UNO; EU); · global movements, development policy;	1.1, 1.2, 2.1, 2.2, 3.1, 4.1, 4.2, 4.3, 5.3, 6.1, 7.1., 7.2, 8.2, 8.3, 9.1, 9.3, 10.2, 11.2
4 Commodities from around the world: Production, trade and consumption	· trans-regional trade networks from the antiquity to the present age (f.e. spices, cotton, silk, coffee, sugar, cocoa); · slavery · trilateral trade and colonial goods; · industrialisation, imperialism and colonialism; · international division of labour and global imbalances; · change of consumption patterns; · fair trade;	1.1, 1.2, 3.1, 3.3, 4.2, 6.1, 6.2, 7.1., 7.2, 8.1, 8.3, 10.1, 10.2, 11.2
5 Food and agriculture	· trans-regional cultural transfer (e.g. grain, potato, rice, horse); · from domestication of farm animals/plants to mass livestock farming/agro-industry and gene technology; · milestones in the history of agricultural production (invention/improvement of the plough, three-field rotation, fertiliser, breeding techniques) and their effects; · rise in output, environment and distribution problems (famines);	1.1, 1.2, 2.1, 3.1, 3.2, 3.3, 4.2, 5.2, 5.3, 6.1, 6.2, 7.1, 7.2, 8.1, 8.2, 8.3, 9.1, 9.3, 11.2
6 Illness and health	· Dissemination of diseases due to wars and globalization processes; · industrialisation and its consequences for health/disease (medical progress vs. new health risks) and demography; · international relief organisations like the International Red Cross and Red Crescent movement	1.1, 1.2, 3.1, 3.2, 4.1, 4.2, 6.1, 6.2, 7.1, 7.2, 8.2, 8.3, 9.2, 11.2

Thematic areas	Sample topics	Competencies
7 Education	· culture of writing (from clay boards to computers); · global dissemination of European educational ideas; · historical change of the "linguae francae" (Greek, Latin, Spanish, French, English, Suaheli, Hausa); · continuity and change of the imbalance of educational opportunities on all levels of society, from local to global (e.g. gender, economic status, region, religion);	1.1, 1.2, 2.1, 2.2, 2.3, 5.1, 6.1, 7.1, 7.2, 8.2, 9.3
8 Globalised leisure-time activities	· change of free time and leisure, also influenced by the global media-networks; · mass tourism as ecological, social and ethical/moral challenge;	1.1, 1.2, 2.2, 3.3, 5.2, 5.3, 7.2, 8.1, 8.3, 11.1
9 Protection and use of natural resources and generation of energy	· historical change of the generation of energy and respective consequences (e.g. exploitation by deforestation); · historical examples for (non-) adjustment of societies to changing environments; · history of ecological movements and politics;	1.1, 1.2, 2.1, 2.3, 3.1, 3.3, 4.1, 4.2, 5.2, 6.1, 6.2, 7.1, 7.2, 8.1, 8.3, 11.1

10 Opportunities and risks of technological progress	· Ambivalence of technological progress, e.g. in the fields
	  · of traffic and transport (e.g. from the invention of the wheel to the container),
	  · of communication (also regarding the history of political participation),
	  · of warfare;
		1.1, 1.2, 2.3, 3.1, 3.2, 4.1, 4.2, 5.2, 6.2, 7.1, 8.1, 8.3, 9.3, 10.1, 10.2, 11.1

11 Global environmental changes	· consequences of the neolithic and industrial revolutions; · conditions and consequences of the global population growth in the past and presence; · historical conflicts/migrations due to environmental changes;	1.1, 1.2, 2.3, 3.3, 4.1, 5.1, 5.2, 6.1, 7.2, 8.1, 8.2, 8.3, 9.1, 10.2, 11.1
12 Mobility, urban development and traffic	· historical change of mobility and traffic; · cities as motors of the historical development; · urbanisation of the global population as a global trend in history: from the village to the mega-city; · conflicts between urban centres and the periphery;	1.1, 1.2, 2.1, 2.3, 2.2, 3.1, 3.2, 3.3, 5.3, 6.1, 8.1, 8.3, 11.2
13 Globalisation of economy and labour	· labour migration in the past and presence; · expansion of the (international) division of labour; · historical preconditions and consequences of the globalisation of economy and labour (e.g. for the social and welfare state);	1.1, 1.2, 2.2, 4.2, 6.1, 7.1, 7.2, 9.1, 10.1, 11.1
14 Demographic structures and developments	· depopulation and overpopulation in different historical contexts (e.g. Thirty Years War, industrialisation/medical progress); · changing population policy (e.g. family planning); · change of the family, gender roles and age distribution (e.g. differences between industrialised, threshold and developing countries);	1.1, 1.2, 2.3, 4.2, 5.1, 5.2, 6.3, 7.1, 7.2, 8.3, 9.3, 10.2

Thematic areas	Sample topics	Competencies
15 Poverty and social security	· change of of the social security systems (e.g. extended family and children as retirement security, systems of spitals and welfare, social and welfare state, private provision); · historical change of poverty (causes and consequences)	1.1, 1.2, 2.2, 3.1, 4.2, 5.1, 5.3, 6.2, 7.1, 8.2, 9.1, 10.2, 11.1
16 Peace and conflict	· change of war and peace from the antiquity to the present time (including industrialisation of wars, means of mass destruction, "new wars", international terrorism); · history of peacekeeping (including supra-national security systems and collective help in humanitarian disasters);	1.1, 1.2, 2.1, 2.3, 4.3, 5.2, 8.2, 9.1, 9.2, 9.3, 10.2, 11.1
17 Migration and integration	· historical examples from the antiquity to the present time; · changing images of the self and others in the context of transcultural processes of migration and integration (e.g. development of a European superiority feeling in the wake of the European expansion/colonisation);	1.1, 1.2, 2.3, 3.3, 4.2, 5.3, 6.3, 8.3, 9.1, 9.3, 10.2
18 Political rule, Democracy and human rights Good Governance	· historical change of political rule and patterns of legitimation; · tension between the "western" cultural background of democracy and human rights and the universalist claim of these concepts; · tension between the nation states' claim for sovereignty and the influence of global players and non-governmental organisations;	1.1, 1.2, 2.2, 2.3, 4.3, 5.1, 5.2, 5.3, 6.3, 7.2, 9.1, 9.2, 9.3, 10.1, 10.2, 11.1
19 Development cooperation and its institutions	· origin and context, continuity and change of development politics and cooperation;	1.1, 1.2, 2.3, 3.1, 4.1, 4.2, 6.1, 7.1, 7.2, 8.1, 8.2, 8.3, 9.3, 10.2, 11.2
20 Global governance	· change of world order (balance of powers, emerging inter- and supra-national organisations, block construction, polycentric world);	1.1, 1.2, 4.3, 9.1, 9.2, 11.1
21 Communication in a global context	· historical change of long distance communication (from smoke and fire signals to digitally based real-time communication); · chances and risks of mass communication with historical examples from the early modern age (letterpress) to the present time;	1.1, 1.2, 2.1, 3.3, 4.2, 9.1, 9.3, 10.2, 11.2

4.3.3.4 Competency-oriented learning unit: The European colonialist policy in Africa in the 19th century[120] (9th form and older)

Rationale for the selection of this topic and notes for teachers

Preliminary note: This topic and its concrete form in the following draft of a learning unit have been phrased carefully, so that the teachers will have the chance to pose a thematic question which is appropriate and motivating with respect to their individual situation and the particularities of their class. They can adjust their design accordingly, particularly to give consideration to the potential migration background of their students.

With respect to the historical dimensions of "globalisation", we can distinguish between a *pre-colonial, colonial* and the *current* phase of globalisation. According to Ulrich Beck, the special feature of the last phase can be seen in the fact that today people all over the world have become aware of these processes.[121] Jürgen Osterhammel offers the following definition of the term "colonialism": *"Colonialism* means a relationship of power among collectives, in which a culturally different minority of colonial masters who are themselves unwilling to adapt or compromise, fundamentally decide on the colonised peoples' lives. For making and executing their decisions, the colonial rulers primarily take account of external interests. In modern times, such decisions are often linked to missionary ideologies and justifying doctrines based on the colonial masters' conviction of their own cultural supremacy"[122]. The following definition is from the *Lexikon der Globalisierung*: "The term *colonialism* is generally associated with modern times and thus it denotes a feature of the modern times which at the same time has become the crucial historical precondition for the current globalisation."[123] While Osterhammel emphasises the particular aspect of dominion in the relationship between the colonial masters and the colonised peoples, Kirchner focuses on the history of globalisation. Against this background, the selected sample unit in history belongs to Global Development Education/ESD.

The topic has been conceptualised for students of the 9th form and older. It was selected, considering that this topic, which serves as an example for Global Development Education/ ESD, is part of all German history curricula, but nevertheless not very familiar with many history teachers. On the other hand, it has been focused on presenting questions, topics and material which are (still) not part of our standard history textbooks that hitherto mostly show a quite monolithic view of Africa. The questions and tasks developed here focus on the change of perspectives by including sources which show the colonised peoples' views.

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[120] For the subject History lessons, there are no KMK educational standards which are valid for all federal states. The learning unit is oriented at the competency model of the curricula of the State Berlin and at the "Curricularen Vorgaben für die Jahrgangsstufen 5–10/Integrierte Sekundarschule/Gymnasium für den Lernbereich 'Lernen in globalen Zusammenhängen im Rahmen einer Bildung für nachhaltige Entwicklung'", ed. Senatsverwaltung für Bildung, Jugend und Wissenschaft 2012
http://www.berlin.de/imperia/md/content/sen-bildung/unterricht/lehrplaene/lernen_in_globalen_zusammenhaengen.pdf , 27.10.2016

[121] See Kreff, Fernand; Knoll, Eva-Maria; Gingrich, Andre (2011): keyword "Globalisierung". In: Lexikon der Globalisierung, Bielefeld, transcript, p. 126–129, p. 126 f

[122] Osterhammel, Jürgen (2006⁵): Kolonialismus. Geschichte – Formen – Folgen, München, p. 21

[123] Kirchner, Irmgard (2011): keyword "Kolonialismus". In: Lexikon der Globalisierung (Anm. 118), p. 183–186, p. 183

They train critical media competency[124] and inspire to discuss the colonial heritage in the context of the present globalisation process –with respect to African societies and in particular to the German society. They open the students' awareness for phenomena of racism in Germany and in other societies which are structural and relevant to everyday life, and they demonstrate the ethical claim to accept social responsibility today, based on historical facts.

Quite naturally, a thematic sequence organised as sample unit – like the one presented here – is far from being able to take all aspects into account which could be associated with the topic of "500 years of European colonialism in Africa". This applies to the history of slavery and slave trade, for the history and presence of racism, for the prehistory of colonialism in Africa, for the path of the African nations to independence and for the European and African "heritage" of colonialism and the discourse on "neo-colonial" structures of international processes of globalisation. However, the presented example can be linked to all these topics. Furthermore – due to limited space – none of the selected topics will be exhaustedly dealt with. Evidently, the economic consequences of the colonial boundaries on the African continent can hardly be over-estimated, even if we have not explicitly included this issue. But we offer a map which shows pre-colonial (slave) trade routes within Africa and so provide a foundation for focusing on such issues.

In addition to the questions addressed here, we recommend to work with images (e.g. colonialism in advertisement) and to conduct a "research of traces on site" (presence of the colonial history, e.g. colonial goods stores, street names, monuments)[125]. From today's perspective it is not easy to analyse the current state of globalisation, which is – particularly in many African states – characterised by massive problems with "good governance", by means of a historical perspective of colonial times and the consequences of colonisation. In the sample unit the attempt is made to handle the complexity by looking at the present situation of many African nations from different perspectives. In phase 2, for instance, the division of Africa (Berlin Conference of 1884–85) induces the question to which extent the birth process of the African nations of today can be deemed as a key to understand their present problems. In phases 3 and 4, the colonised people's perspectives are introduced, with different opinions about the role of the colonial past for today's problems of the continent.

Here, we have to be careful to avoid monocausal explanations of the consequences of colonisation for the continent's history, like "the colonial demarcations are the root cause of the problems of today's African nation states". The texts presented in phase 4 address this problem. They refer to a multitude of factors which are significant for today's situation of African nation states. They should be in the focus of the intermediary discussions and a final evaluation with the students.

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[124] See introduction and conclusion of the sequence: media-critical discussion on tendencies regarding Africa in the press
[125] Here we refrained from including – didactically very good – tasks on "tracing" local history ("Local history of colonialism"), because this approach has already plenty of respective project concepts and experience that have been published and can be used by the teachers to perform such history projects on site

Competency grid

This learning unit is meant to enhance the core competencies 1, 2, 4, 5, 7 and 10 of the Curriculum Framework. The three attainment levels for the Secondary School certification (Level I) describe the expected results with regard to the performance evaluation and feedback to the students. The higher attainment levels include the lower ones. The respective general conditions, learning groups and subject-specific priorities can result in different requirements. They might have to be supplemented by subject-specific and supra-disciplinary requirements.

In addition, "objectives and expectations" have been defined for the tasks of the learning unit[126]. In the tradition of content-related definitions of learning targets, they supplement the competency based access.

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[126] Due to limited space, the "objectives and expectations" will only be published online (in German), see www.globaleslernen.de, 27.10.2016

Specific competency of the learning unit	Primary school compe- tency	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
The students are able to (…)				
1 (…) research and analyse task-related historical sources and current media coverage for information and arguments about events in Africa.	1.1	(…) find task-related information and arguments in historical sources and current media co-verage and compare these with their prior knowledge.	(…) research task-related information and arguments in historical sources and current media coverage, structure, compare and link them with their prior knowledge.	(…) research task-related information and arguments in historical sources and current media coverage, critically select and structure them and compare them with their prior knowledge regarding agreements or differences.
2 (…) change perspectives when working with sources and presentations on the colonial history of Africa and its consequences.	5.2, 5.3	(…) change (at least to some extent) the perspective when working with sources and presentations and dealing with questions on colonialism in Africa and its consequences, while being aware of their own limited point of view.	(…) (largely) self-reliantly understand different perspectives when discussing issues/ tasks on colonia-lism in Africa and their consequences, while realising different value orientations and comparing them with their own views.	(…) carry out autonomously a historical change of perspective by critically analyzing sources and presentations on colonialism in Africa and reflect the consequenc-es for the current situation of former colo-nies for their own self-image as well as for the self-image of African citizens.
3 (…) accept constructively the openness of the historical process when discussing complex questions of colonialism and its consequences.	10.1, 10.2	(…) use with appropriate help the example of a historical view characte-rised by multiple perspectives and causes, to realise (at least to some extent) the openness of the his-torical process, and accept the significance of personal openness for the ability of society to act in times of global change.	(…) use concrete examples of the learning unit to realise the challenge of a historical view characterised by multiple perspectives and causes, to accept the ambiguity of open situations, and explain the value of personal openness for the ability of society to act in times of global change.	(…) investigate processes of globalisa-tion and development, on the basis of a historical analysis of the co-responsibility for the consequences of Africa's colonisation, taking into account multiple perspectives and causes, and take the personal and social challenges of an open future as a chance.

Course, tasks and expectations

Phase 1:
What is our image of Africa and which images do we find in the media?
To access the topic it is helpful to find out more about the students' prior knowledge and to discuss their individual and media-communicated ideas of the political, social and economic situation of the African continent. The students will have the opportunity to research and process historical information.
Two weeks prior to the first lesson they receive the tasks 1–3, which should be finished in pair work before the common start of the learning unit. The mind maps will be presented, compared and discussed in the first lesson, and they will remain visible in the classroom for the whole learning unit.

Tasks
1. Make a brainstorming and design a personal mind map where you present your knowledge on the history and present situation of the African continent.

2. Spend two weeks to research on the topic "Africa", its media coverage (newspapers, TV, internet) and especially look at historical statements and accounts on the four dimensions of development: *Social Affairs, environment, economy, politics.* Briefly note the results of your research.

3. Compare the results of your research with the content of your mind map and add the new results in a different colour before you write a short comment on positions that agree and differ.

4. Discuss your results in the class and finally write down your questions about the historical background of the present situation of the African societies and states; we will go deeper into some of these questions later.[127]

Phase 2:
The birth of today's African nation states – a key to understanding the current situation?
The first and second task of this phase should be worked at in parallel and in divided work; the results should then be presented to the plenum. If the whole class should work at the first task, the two parts of the second task are optional. They can eventually be dealt with by fast working students.

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[127] Note: The phrasing of historical questions should leave the results absolutely open. Questions that have not been worked at in the learning unit will be noted, possibly distributed to interested students for further research, or they will finally be presented to an expert for African history

Tasks

1. Compare and analyse in partner-work the map sketching "Africa in 1870" (**M 1**) with other maps of Africa which show the "European division of Africa" in 1914 (**M 1a**) and the borders of today's African states[128]. (**M 1b**)

   a) First compare the three maps (**M 1**, **M 1a** and **M 1b**), especially taking into account the African peoples' settlement areas, the (slave) trade routes within Africa and the old colonial bases around 1870. If you cannot clearly see the differences, first draw the border lines of both maps ("1914", "today") in different colours into **M 1**; then compare.

   b) Summarise the results of your analysis and draw as many reasonable conclusions for the birth process of African nation states as possible.

2. a) Present the statistical data of **M 2** as a bar chart and write down three observations which you deem informative.
      Discuss the form of presentation of the "Division of Africa" shown in a lexicon of 1891/92, which addressed the general public as "encyclopaedia".

   b) Use your textbook and your knowledge of the industrialisation to investigate the preconditions which enabled the European colonial powers towards the end of the 19th century to exert colonial dominion over the huge African continent in such a short time span.[129]

3. Discuss in small groups whether and how far the colonial history of the coming into being of the African states could (for the majority of them) have consequences for the continent's history, until today. Each group will present the two considerations they deem most important. They will be noted on a poster which will be fixed in the class room.

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[128] For the birth of independent nation states, see
http://www.brown.edu/Research/AAAH/, 27. 10. 2016
http://commons.wikimedia.org/wiki/Atlas_of_colonialism?uselang=de, 27. 10. 2016
http://commons.wikimedia.org/wiki/File:Colonisation2.gif , 27. 10. 2016

[129] The teacher could give an impulse with the question why Africa was the last continent to be colonised towards the end of the 19th century

MATERIAL

M 1: Africa in 1870: African peoples, inner-African (slave) trade routes and colonial bases/areas of influence of the colonial powers (hatches)

AFRICAN PEOPLES AND STATES ON THE EVE OF PARTITION AND CONQUEST

Source: Boahen, A. Adu: African Perspectives on Colonialism. P. 3. © 1987 The Johns Hopkins University Press.
Reprinted with permission of Johns Hopkins University Press.
As there is no other information on the map, we assume that it was meant to be published.
Also see: http://www.bpb.de/gesellschaft/migration/afrikanische-diaspora/59372/kolonialgeschichte, 27.10.2016

M 1a: The European Colonies in Africa around 1914

© Wikimedia Commons: https://de.wikipedia.org/wiki/Wettlauf_um_Afrika#/media/File:Kolonien-Afrikas.svg

M 1b: The borders of today's African states

Source: Cornelsen GmbH

M 2: Entry "Afrika" in "Meyer's Konversationslexikon" 1891/1892

"Africa […]. The division of the continent among the European powers has made rapid progress in the last years, even though the occupation of vast areas has mostly happened only on paper and is exclusively targeted at safeguarding the respective areas for the interested states and against endeavours from other parties. […] The following presentation shows how extraordinarily the European possession of colonies in A. has expanded since […] 1876. Areas which the following nations possessed or claimed to possess:

	1876	1890
France	733,479 km²	5,956,914 km²
Great Britain	761,381 km²	4,170,474 km²
German Reich		2,720,000 km²
King of Belgium		2,491,000 km²
Portugal	1,799,364 km²	2,264,945 km²
Turkey	1,000,000 km²	1,000,000 km²
Italy	935,000 km²	
Spain	9,480 km²	519,280 km²
Sum:	**4,303,704 km²**	**20,057,613 km²**

As the size of Africa is calculated to be 29,826,922 km², there are only 9,769,309 km² left with the major part belonging to the Sahara which is more than 6 mill. km² in size."

Meyer's Konversationslexikon, 4. Auflage, 19. Band (Jahres-Supplement), Hildighausen 1891/1892

Compare: The size of the Federal Republic of Germany is about 360,000 km², the PR of China is about 9,600,000 km² in size (2013).

Phase 3:

How did the European powers justify the colonisation of Africa, and how did the African people experience the colonial rule?

It was rather late, in 1884, that the German Reich officially became one of Europe's colonial powers. It participated in the European race about the colonial division of Africa. The Imperial Chancellor, Bismarck, invited 14 heads of state to a conference in Berlin (15. 11. 1884–26. 02. 1885), with the target to come to a peaceful agreement with the original colonial powers. This conference was called the "Berlin Conference", "Congo Conference" or "West Africa Conference". It was meant to prepare for the division of the African continent amongst the participating European powers, namely Belgium, Germany, France, Great Britain, Italy, Portugal and Spain (see M 2).

Tasks

Form groups to prepare an oral presentation of the first two stanzas of Michael Kayoya's poem (**M 3**), which should optimally convey the European powers' perspective and the perspective of the "colonised" people as expressed in the poem.

To prepare for the presentation of the poem:
1. Analyse the statements of the text (**M 4**) on the Berlin Conference (participants in the Conference, targets and intentions of the European powers, attitude towards the African people) and compare them with Kayoya's presentation of the colonial powers' role.
2. Elaborate a fictitious dialogue between Kayoya and a representative of the colonial powers about Kayoya's description and evaluation of the colonial rule.
3. Discuss the causes for the differences between the declaration of intent in the Berlin Conference document and Kayoya's view and use these findings to write your individual historical comment on Kayoya's poem.

MATERIAL

M 3: Michel Kayoya (1934–1972)
The selfesteem of the "colonised" people (1968, the first two of 11 stanzas)

Michel Kayoya was born in 1934 in Ruanda-Burundi which had been under Belgian dominion (wardship) from 1919 to 1962. He received an education in catholic institutions, studied philosophy and theology. After study stays in Belgium, he was ordained in Kikumbu in 1963 to be a Catholic priest, and then he also worked as a teacher and writer. In 1972, he was murdered during the civil war. In his poem "The self-esteem of the 'colonised' people", Michael Kayoya looks back to his times at school in Ruanda-Burundi.

Michael Kayoya: The selfesteem of the colonised (2 of 11 verses)

In Berlin 1885, they have divided our continent.
Without asking anyone, they had
Attended to our misery.
They came in order to pull us out of our centuries
5 Of misery.
They came to educate us.
They came to civilise us.
This Berlin contract has aggrieved me for a long time.
Each time when I met this date, I felt
10 The same kind of disdain.
That someone disdains you
Admitted
You think about it for one day
Then it's over
15 That a people disdains you
You
Your father
Your mother
Your people
20 This is too much!
Too much of outrage which a human heart
Can "digest".
But the worst was that they taught me
This date. I had to learn it by heart.
25 For a whole school lesson they told us the
Names of the signatories of Berlin
Their extraordinary abilities
Their diplomatic aptitude
The motivations behind each of them.

30 They spread out before our motionless faces
The consequences:
The pacification of Africa
The benefaction of civilisation in Africa
The courage of the explorers
35 The selfless humanism
But no one   Absolutely no one pointed to the insult
To the ignominy which accompanied us everywhere.
A human being,
One who is equal with you
40 Interferes in your affairs
Without asking you
That is a gross disrespect, which wounds every
Sensitive heart.
[…]

From: Michael Kayoya (1978): Auf den Spuren meines Vaters. Ein Afrikaner sucht Afrika, Gütersloh, pp. 84–87,
p. 84 f. (Original 1968, 1971 in French, by the French publishers "Éditions des presses Lavigerie" in Bujumbura/
Burundi; translation from German: TS)

M 4: From the preamble and Art. 6 of the Final Document on the Berlin Conference, 26.02.1885 (General Act of the Berlin Conference)

[Introduction] In the Name of God Almighty,

Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India; His Majesty the German Emperor, King of Prussia; His Majesty the Emperor of Austria, King of Bohemia, etc, and Apostolic King of Hungary; His Majesty the King of the Belgians; His Majesty the King of Denmark; His Majesty the King of Spain; the President of the United States of America; the President of the French Republic; His Majesty the King of Italy; His Majesty the King of the Netherlands, Grand Duke of Luxemburg, etc; His Majesty the King of Portugal and the Algarves, etc; His Majesty the Emperor of all the Russias; His Majesty the King of Sweden and Norway, etc; and His Majesty the Emperor of the Ottomans, WISHING, in a spirit of good and mutual accord, to regulate the conditions most favourable to the development of trade and civilization in certain regions of Africa, […]; BEING DESIROUS, on the other hand, to obviate the misunderstanding and disputes which might in future arise from new acts of occupation (prises de possession) on the coast of Africa; and concerned, at the same time, as to the means of furthering the moral and material well-being of the native populations; HAVE RESOLVED, on the invitation addressed to them by the Imperial Government of Germany, in agreement with the Government of the French Republic, to meet for those purposes in Conference at Berlin […].

Art. 6: Regulations for the protection of the indigenous people […]

All the Powers exercising sovereign rights or influence in the aforesaid territories bind themselves to watch over the preservation of the native tribes, and to care for the improvement of the conditions of their moral and material well-being, and to help in suppressing slavery, and especially the slave trade. They shall, without distinction of creed or nation, protect and favour all religious, scientific or charitable institutions and undertakings created and organized for the above ends, or which aim at instructing the natives and bringing home to them the blessings of civilization.

Christian missionaries, scientists and explorers, with their followers, property and collections, shall likewise be the objects of special protection.

Source: http://africanhistory.about.com/od/eracolonialism/l/bl-BerlinAct1885.htm, 27.10.2016

Phase 4:
Does the colonial history of Africa result in a special European responsibility towards that continent?

Tasks

1. Analyse and discuss in partner work the statements of an African historian (**M 5**) and of a German expert on Africa (**M 6**) with respect to **M 3** and **M 4**; make a reasonable decision whether and how to supplement your respective mind maps.

2. Form small groups to discuss one of the following questions, based on all or two of the three texts **M 5**, **M 6** and **M 7**:
   a) In how far and why can we better understand today's problems of African states if we know their colonial history?
   b) Do the former colonial powers or Europe on the whole have a special historical responsibility today towards the postcolonial African states?

   Prepare a joint position paper, with good reasons for agreements and different opinions and with open questions, and present it to the class for discussion.

MATERIAL

M 5: Albert Kwadzo Adu Boahen on the significance of colonialism for Africa

On 20 pages of the seventh volume of the "UNESCO General History of Africa" Albert Kwadzo Adu Boahen (1932–2006) extensively discusses the question how the colonialism in Africa should be judged historically and whether it is justified to speak of a "positive" heritage of the colonialism in Africa. The following excerpts give examples (with reference to Michel Kayoya) for his discussion of the educational system; afterwards some parts of his final evaluation are cited.

a) On the colonial system of education
"Closely associated with the spread of Christianity was that of Western education. […] Certainly, by the end of the colonial regime, there were relatively few areas without at least elementary schools. The spread of western education had far-reaching social effects among which was an increase in the number of the westernized educated African elite which now [1985] constitutes the ruling oligarchy and the backbone of the civil service of African states." (p. 797)
"In the field of education, what was provided in the colonial days was grossly inadequate, unevenly distributed and badly oriented and therefore not as beneficial as it could have been for Africa. Five different types of educational institutions were established under colonial rule: primary, secondary, teacher-training, technical and university. But while many primary schools had been established by 1860 in British West Africa, […] it was not until after the Second World War that technical schools and university colleges were established in most parts of Africa. […]

Besides its grossly inadequate nature numerically and its uneven distribution, the curricula provided by all these institutions were determined by the colonial rulers and were closely modelled on […] those of the metropolitan countries […] and therefore irrelevant to the needs of the [African] continent. No less an authority than the Governor of the Gold Coast [= Ghana] from 1919 to 1927, Sir Gordon Guggisberg, testified in 1920: 'One of the greatest mistakes of the [colonial] education in the past has been this, that it taught the African to become a European instead of remaining African. […] In future, our education will aim at making an African remain an African and taking interest in his own country.' But though Guggisberg established Achimota College to make good this promise, not much was achieved since education in the country continued to be controlled by the Christian missions whose primary aim was to produce people who could read the Bible in English or in the vernacular as well as teachers and priests. […]

The impact of this inadequate, lopsided and wrongly oriented education on African societies has been profound and almost permanent. First, it left Africa with a huge illiteracy problem […]. Secondly, the educated elite that was produced was by and large an alienated elite, an elite that adored European culture and civilization and looked down on African culture. Furthermore, as an effect of colonialism, the African himself was looked down at, was humiliated and discriminated against – openly or hidden." (p. 801)

b) On the overall assessment of colonialism in Africa

"It should be quite obvious from the above analysis that those scholars who are of the opinion that colonialism was an unmitigated disaster for Africa and that it caused nothing but underdevelopment and backwardness have overstated their case. Equally guilty of overstatement are those colonial apologists […], who see colonialism as an unqualified blessing for Africa, as well as those who see the record [of colonialism] as a balanced one. A more accurate judgement in this writer's opinion is not that colonialism did not do anything positive for Africa, it indeed did. But Europeans did make huge profits in Africa through mining companies, trading houses, banks, shipping lines, plantations and concession companies[130]. […] Moreover, whatever colonialism did for Africans in Africa, given its opportunities, its resources and the power and influence it wielded in Africa at the time, it could and should have done far more than it did. As even [the scientist P. C.] Lloyd admits: 'So much more might perhaps have been done had the development of backward territories [in Africa] been seen by the industrial nations as a first priority.' It is precisely because colonial rulers not only did not see the development of Africans as their first priority, but did not see it as a priority at all that they stand condemned. It is for these two reasons that the colonial era will go down in history as a period of growth without development, one of the ruthless exploitation of the resources of Africa, and on balance of the pauperization and humiliation of the peoples of Africa." (p. 805)

Source: Adu Boahen (Ed.1985): General History of Africa, Vol. 7: Africa: Under Colonial Domination 1880–1935 (UNESCO General History of Africa), Berkeley, see the online-version on: http://www.unesco.org/new/en/culture/themes/dialogue/general-history-of-africa/volumes/complete-edition/volume-vii-africa-under-colonial-domination-1880-1935/#c181028, 27. 10. 2016

[130] Concession company: A company that had received a concession (right) from the colonial power to exploit raw material in a particular area of a colony.

M 6: The perspective of a German expert for Africa

In a 2010 interview for n-tv, the Africa scientist Thomas Bierschenk (University of Mainz) commented on the question about the role that the colonial past still plays today for the continent's present problems.

Excerpts from the interview:

n-tv.de: 50 years have passed since the major wave of independence in Africa. Can we do justice to Africa when we sweepingly talk about Africa and the Africans?

TB: No, certainly not. […] No one would talk about an Asian development problem in general as we do talk about Africa. Everyone knows that China is not Iraq and Kuwait is not Afghanistan. […]

n-tv.de: Still today colonialism is blamed for many problems in Africa. Is this still legitimate after 50 years?

TB: Of cause, today you cannot blame colonialism alone for the problems of Africa. Nevertheless, it has to be said clearly that the African countries had a difficult legacy, when they finally became independent. No colonial power had sufficiently prepared their colonies for independence. This can be clearly seen if you look at the school enrolment rates. Only today the continent has reached the rates that a country like Korea had already had in the 1950s. In fact, many countries were released into independence in a state of bankruptcy.

n-tv.de: Many countries still have ties with their former colonial power, last not least through the lasting economic relationship. What were the effects of that?

TB: With few exceptions, the colonies were coined by colonial economic structures. They were expected to supply primary products from agriculture and mining while importing finished products. Even after their independence, these states could not get out of this. […]

n-tv.de: But some countries could earn quite some good money by exporting raw materials. How far does Africa's own responsibility for their problems go by now, due to their corrupt elites?

TB: […] For countries like Norway […] oil is a part of their overall economic structure, and they finance investments with the income. This is not so in Africa, and it is absolutely clear that the African elites are mainly responsible for that.

n-tv.de: Why are only so very few solutions developed from inside Africa for the huge problems?

TB: Within the system [of development aid] which has evolved since the 1950s, many consultants are unfortunately interested in an institutionalised system of aid that creates a permanent relationship of dependence. […] Institutionalised development aid gives little incentive for Africa to find own solutions. […] Africa's challenge is […] not only to establish functioning states and administrations. In Europe and Asia there were advanced middle classes that supported development and democracy. In Africa, we still have only rudimentary middle classes. In 1960, only 13 percent of the people in Africa lived in cities. Meanwhile, there is a rapid trend of urbanisation with emerging social forces that strive for development and accountability.

n-tv.de: Do you expect that the increasing urbanisation will lead to increasing indigenous strength of the continent?

TB: No doubt this will be the case. Meanwhile we have an urban culture in Africa which had not at all existed 50 years ago. Alphabetisation has made huge progress, in the cities, literacy among boys is already 100 percent. There is a vital local production of culture, apart from the government broadcasting stations, there are private media, newspapers and radios. A dynamic civil society is emerging which will surely have positive effect in the long run. But the African countries have taken the past 50 years to create certain structures which are necessary for their development. […]

n-tv.de: Are there today things that we can learn from Africa?

TB: What has always been striking for me in Africa is many people's ability to lead a life worth living, despite adverse conditions. Given these adverse conditions, it is a great achievement to maintain a minimum of democracy. What I've also always noticed a remarkable religious tolerance among many African people. You can find Christians, Muslims and followers of indigenous religions in one family. […]

Afrika und der „Ressourcenfluch". Thomas Bierschenk im Interview mit Solveig Bach (n-tv).
In: http://www.n-tv.de/politik/Afrika-und-der-Ressourcenfluch-article1265746.html, 27.10.2016

4.3.3.5 Performance monitoring and learning-progress interviews

The continuous observation of the students on the background of the desired specific competencies and the dialogue with them are the foundation for the assessment of their performance. This is to successively enable them to realistically assess their own performance in relation to the aspired targets, to realise learning needs and to plan their own learning process.

The dialogue with the students gives the teachers important hints about the effectivity of the learning process, which enable them to design the next steps in a way that an individual support of the students is possible.

The changing learning arrangement and different activities offer many possibilities and reference points for the performance assessment. They have to be attuned to the principles and criteria of the subject and to the students´ state of development. Apart from the subject-related competencies of History and the selected core competencies of Global Development Education/ESD, it is also about supra-disciplinary competencies. In case of the proposed learning unit the students´ autonomy, cooperative behaviour in partner and team work their ability to listen and respond to questions and consideration of their classmates as well as reflection skills will be enhanced. Apart from the conduct in discussions, autonomously found solutions in the presentations allow to draw conclusions about the acquired competencies. The assessment criteria are based on the subject-related and supra-disciplinary targets and requirements, but most of all on the attainment levels of the respective competency grid for each unit. Not only the absolute level of attainment is relevant in this context but also the individual learning progress.

It is important for the performance feedback in the learning-progress interviews to refer back to the competencies linked to the proposed learning unit. The students should be informed about them at an early stage. So the selected specific *competency 1* (the students are able to reseach and analyse task-realted historical sources and current media coverage for information and arguments about events in Africa) is mainly related to the first task of the first phase (research on the history and present situation of Africa and presentation in a mind map) – but also to the work with sources in the following phases.

Competency 2 (the students are able to change perspectives when working with sources and presentations on the colonial history of Africa and its consequences) determines the focus of the learning process in phase 3 (looking from the perspective of the European colonial powers at the Berlin Conference and from the perspective of the colonised people by Michal Kayoya's poem). Change of perspectives is later of central importance in phase 4 where the pupils form their own opinions (searching from different perspectives for an answer to the question whether the colonial history of Africa results in a specific European responsibility towards this continent).

The development of *competency 3* (the students are able to accept constructively the open-ness of the historical process when discussing complex questions of colonialism and its consequences) is becoming increasingly important in the course of this learning unit. It requires the strengthening of the ability to work with seemingly contradicting sources and to tolerate ambiguity. One indicator for the learning progress is the degree of the students' ability to recognise the open guiding questions of the 4 phases and to find differentiated answers from different perspectives.

4.3.3.6   Bibliography and Links

Literature which served as basis for the learning unit
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Weblinks

French TV presentation on the present exchange between Africa and Europe, with historical flashbacks: http://www.bpb.de/mediathek/73445/der-afrikanische-kontinent

The subject "colonialism": In: ZEIT für die Schule (Internetportal with texts, videos and links): http://blog.zeit.de/schueler/2012/03/30/kolonialismus/

With Benedikt Stuchtey's scientific research including excellent scourses: http://ieg-ego.eu/de/threads/hintergruende/kolonialismus-und-imperialismus/ benedikt-stuchtey-kolonialismus-und-imperialismus-von-1450-bis-1950/ ?searchterm=None#citation

Gero Erdmann: Vorkoloniale politische Organisationsformen (in Africa): http://www.bpb. de/themen/17KIXT,2,0,Vorkoloniale_politische_Organisationsformen.html

Kolonialgeschichte im Deutschen Historischen Museum – Ein kritischer Audioguide URL: http://www.kolonialismusimkasten.de/

4.3.4   Religion – Ethics

(taken unchanged from the 1st edition 2007)

Klaus Hock and Norbert Klaes[131]

4.3.4.1   Contribution of the subjects Religion/Ethics to Global Development Education/ESD

Religion/Ethics as curriculum subject group is an exception to the usual range of subjects in many respects. One special feature is that it comprises at least three subjects (Protestant Religious Education, Catholic Religious Education, Ethics) and that it has the capacity to include more (Lebensgestaltung/Ethics/Religion [LER], Jewish/Buddhist/Islamic/etc. religious education). In fact, far from ruling out the ideal of a subject group in which "the individual subjects are taught in a cooperative way, whilst retaining their integrity and their distinctive characteristics and the rights of students and parents or legal guardians" (see Education Act for the State of Mecklenburg-Vorpommern, § 7.3), it strongly implies this possibility. This kind of cooperative approach has the potential, especially with respect to Global Development education/ESD, to encourage the exchange of multi-perspective questions and insights that can lead to mutual enrichment.

The Religion/Ethics subject group is in a unique position to address overarching (ethical) issues more or less cross-cutting the other subjects, in a way which particularly emphasises the aspect of coherence.

Because of its particular configuration (non-confessional, secular ethics education on the one hand, and religious confessional on the other), the subject group has the potential to do an exemplary job of imparting the knowledge and insights to be gained from the required basic work in the area of Global Learning. It is therefore appropriate not to tear apart Religion and Ethics into two separate subjects with respect to the issues of the Curriculum Framework. This view is supported by the fact that teaching Religion from a purely theological or scientific-religious perspective often creates – inadvertently – a blind spot regarding non-religious dimensions. On the other hand, global development cannot be addressed in Ethics without an academic foundation in Religion, a religious stance and theological reflection. It is of great significance that interdisciplinary groundwork can be done in the Religion/Ethics subject group, beyond specific subject content, and that a horizon of reflection on interdisciplinary connections can be opened, in a way that is not possible in other subjects.

This amounts to renegotiating the core of Global Development in the subject group and subjecting it to critical reflection: the guiding principle of sustainable global development as such is already ethically "loaded", because it is to provide orientation for acting. It is to be expected that more or less all subjects will raise ethical issues. The workload of the other

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subjects and the subject group Religion/Ethics could be divided up in schools as follows: in each subject, the subject-related aspects and the perception of ethical issues are in the foreground, while in the subject group Religion/Ethics these ethical questions are reflected upon in greater depth and furnished with arguments. If anywhere, it is in the subject group Religion/Ethics where the basic intention, as laid out in the Framework, and the basic underlying concept of sustainable development itself should be reflected upon in a wider context: What is a culture? Should I define it in terms of nationality, ethnicity, religion, philosophy, the history of ideas and/or shared values/norms? Can I only belong to one culture at a time, or more than one? Is "culture" something that can be clearly defined? On what level do conflicts arise? What are the differences in the various dimensions of sustainable development? What are the underlying concepts of sustainability? Which discourses deal with this topic (e.g. strong vs. weak sustainability)? With which concepts, e.g. teleological, is the term development bound up?

Of course, this can only be taken into account in a limited way in the concrete planning of subject-specific competencies, topics and sample assignments for Secondary Level I. It is important, however, that such questions are aired within the subject group and that further processes of reflection and behaviour are set in motion.

In any case, the subject group Religion/Ethics can bring certain aspects to bear in a unique way, while other subjects can only treat these marginally, if at all. Again, basics are being dealt with as essential problems are raised in the Curriculum Framework, such as:
· the issue of differentiation between religious fanaticism and culturally-influenced or politically-motivated resentment
· the problem of identifying a common level of understanding between potential dialogue partners with a cultural-religious community-oriented background, and those with a secular-religious individualistic orientation
· vis-à-vis the lack of response to decontextualised calls for tolerance, the difficulty of contextualising, for example, the human rights debate in societies with a non-European cultural-religious tradition

These issues largely lie beyond the specific responsibility of the other school subjects – a unique challenge, yet also a definite opportunity for work in Global Development Education/ESD. The subject group Religion/Ethics has a broad and solid foundation for it at its disposal. Here the experience and insight gained in ecumenical learning can be made use of, where development policy-based, interconfessional, inter-religious, intercultural learning as well as peace education and non-violent conflict solutions are related to each other, offering the chance to link global and local thinking and acting to practice a changed way of living.

4.3.4.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

Students are able to (…)

	Core competencies	Subject-related competencies
Recognising	**1. Acquisition and processing of information** (…) acquire information on issues of globalisation and development and process it topic-relatedly.	1.1 (…) gather information on the historical spread of religion and process it topic-relatedly.
		1.2 (…) identify and express criticism of religions from different cultural points of view by using the information they have gathered.
		1.3 (…) select specific information on phenomena such as migration and pluralisation and use it in debates on the clash of cultures vs. the creation of cultural hybridity.
	2. Recognising diversity (…) recognise the socio-cultural and natural diversity in our One world.	2.1 (…) present different religious and philosophical opinions on the human being and recognise the presumptions on which these concepts are based.
		2.2 (…) describe various cultural or religious perceptions of a developing world.
	3. Analysis of global change (…) analyse processes of globalisation and development by using the concept of sustainable development.	3.1 (…) analyse current conflicts between the development dimensions environment and economy from differrent religious or philosophical perspectives.
		3.2 (…) address the opportunities and limitations of technical and economic development and globalisation from a religious and ethical point of view.
		3.3 (…) provide examples of conflicts in the history of religion and philosophy and analyse solution approaches.
	4. Differentiation between levels of action (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	4.1 (…) describe by way of examples the religious and/or philosophically-based significance and responsibility ascribed to the individual/the family/the clan/the society and its leaders.
		4.2 (…) analyse the tensions between different social levels of society and recognise how they influence development processes.
		4.3 (…) describe ethical stances of communitarianism and universalism with examples.
		4.4 (…) represent by examples the significance of dialogue for different levels of action.

	Core competencies	Subject-related competencies
Assessing	**5. Change of perspectives and empathy** (…) realise, appreciate, and reflect upon own and others' values, and their significance for life.	**5.1** (…) represent by example cultural conditions of different value orientations and the resulting influence on economy and society and question these critically.
		5.2 (…) discuss the problems involved in transferring normative beliefs to the global level.
		5.3 (…) become aware of their own religious/cultural/philosophical perception and reflect on the uncertainty about the "self" and the "foreign".
		5.4 (…) recognise (self-)critically that context-determined perception can also lead to prejudice and exclusion.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orientating at the international consensus, at the principle of sustainable development and at human rights.	**6.1** (…) understand the principle of sustainable development, human rights and other international agreements with their ethical and religious preconditions, and evaluate them as contributions to building a global consensus and to support the intercultural dialogue on values.
		6.2 (…) reflect on the universal applicability of attempts to achieve a global consensus and their connectability with religious and philosophical traditions.
		6.3 (…) differentiate between factual and ethical or religious issues of global development and comment on the relationship between them by examples.
		6.4 (…) reflect on the relationship between socio-cultural diversity and global development processes.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), with respect to diverse interests and general conditions, and come to self-reliant conclusions.	**7.1** (…) indicate tensions and contradictions of development policy objectives that are caused by religious ideals, philosophically defined principles and reality.
		7.2 (…) assess chances of success for development projects against the backdrop of religious interests and cultural conditions.
		7.3 (…) evaluate development measures, taking into account the religious motivation of stakeholders.

	Core competencies	Subject-related competencies
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	**8.1** (…) give reasons for their solidarity with people in precarious situations and for their own responsibility for the environment. **8.2** (…) examine and refine, in the course of discussions, the basic orientation behind their individual solidarity and their sense of responsibility in the light of newly acquired knowledge.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	**9.1** (…) recognise and critically examine their own adherence to ethical norms concerning deve-lopment issues. **9.2** (…) deal constructively with contradictions between positions founded on religion/ethics and positions founded on facts. **9.3** (…) make well-reasoned proposals for the solution of conflicts that have been triggered by religious and/or socio-cultural extremes and clashing interests. **9.4** (…) enter into debate with others in a respectful and appreciative manner while stating their own positions clearly.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	**10.1** (…) acknowledge the reality of global complexity and the accompanying ethical variance and uncertainties and deal with them constructively. **10.2** (…) keep their own religious/ethical position open to change in the debate over cultural diversity **10.3** (…) formulate from their own ethical/religious position unifying and reliable options for action that contribute to a humane world.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	**11.1** (…) describe what can and should be done to work towards the goal of sustainable development in their private lives, their own families, religious communities or common interest groups. **11.2** (…) legitimate their own position on measures towards sustainable development and, if applicable, align these with their religious convictions.

4.3.4.3 Sample topics

The sample topics listed have been chosen for learning units or projects and do not illustrate thematic priorities. Instead, they represent topics that are obvious or have proven themselves in practice to support the development of ESD competencies in subject-specific as well as in interdisciplinary or cross-disciplinary learning units.

Thematic area	Sample topics	Competencies*
1 Diversity of values, cultures and living conditions: Diversity and inclusion	**1. Utopias and visions of Paradise** · Models and ideals of the "good life" in religions and philosophical concepts · Comparison of Islamic and Christian visions of Paradise · The Buddhist concept of the "Pure Land"	**2.1**, 5.2
11 Global environmental changes	**2. Creation of the world, cosmogony, responsibility for the world** · Creation myths and Big Bang theory · Responsibility for creation from a Christian and Islamic viewpoint; responsibility for the world · Debate around the theory that environmental destruction can be seen as a result of Christian creation theology	2.1, **3.1**, 4.1, 5.1, **6.1**, **8.1**, 11.2
	3. Responsibility of the individual · Concepts of participative responsibility in different cultural contexts	2.1, 4.1, 4.2, **8.1**, **8.2**, **10.1**, 10.2, 10.3
17 Migration and Integration	**4. The foreign/the other and the self** · African versions of Christianity and philosophy · Birth control as "rational" strategy vs. abundance of children as a symbol of blessing and power	2.1, 4.4, **5.1**, **5.3**, **5.4**, **9.2**, 10.1, 10.2
	5. Inter-religious dialogue · Invitation of representatives of religious or strictly non-religious traditions	**4.4**, 5.1, 5.3, 6.1, 7.1, **8.2**, 9.1, 9.2, **9.4**, **10.2**
19 Development cooperation and its institutions	**6. Religion as hindrance to development – Religion as developmental driving force** · Religious justification for the subordination of women · Religious justification of scepticism towards modern education · Religious struggle for the recognition of universal human rights · Efforts of churches to promote effective general education in developing countries	**1.2**, 2.1, 5.1, 6.2, **7.1**, **7.2**, 7.3, 9.3

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* The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.3.4.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type

Thematic area	Sample topics	Competencies*
2 Globalisation of religious and ethical guiding principles	**7. Mission and colonialism** · New perspectives of "justice" (as opposed to the traditional missionary thought), reflected in the work of the church organisations Misereor and Brot für die Welt · Indirect Rule in Northern Nigeria · Friedrich Fabri and his religious justification of German colonial mission · (Self-) criticism of eurocentrism and development of global perspectives in the official policies of present-day churches · Historical reappraisal of missionary and colonial history in churches · Global Learning against "giving alms" and mission didactics as pedagogy focus for the educational work of churches	**1.1**, 1.2, 2.2, 5.1, **5.2**, **7.3**
	8. Ethics in dialogue: World Ethos · Familiarity with and ability to question the concept of World Ethos and the efforts to put it into practice	2.1, 2.2, 3.2, 4.3, **4.4**, **5.2**, 6.1, **6.2**, 9.3, 10.2
10 Opportunities and risks of technological progress	**9. Genetic engineering: Limits of the possible** · Christian, non-religious, Islamic Jewish, Buddhist, positions on genetic engineering	**1.1**, **3.2**, 5.1, 5.2, **9.2**, 10.1
17 Migration and integration	**10. Migration and religion** · African christian diaspora · Young muslims in Germany	1.1, 1.2, **1.3**, 4.1, 4.3, **5.1**, 6.2, 6.4, 9.2, **9.3**, 10.1–10.2
15 Poverty and social security	**11. Poverty and wealth** · Relief of poverty vs. poverty as an expression of inner freedom and serenity in certain religious and philosophical traditions · Common features and differences in church development services, non-religious NGOs, Islamic aid agencies, etc. · "Theology of Liberation" as reorientation within world-church perspectives · Support of "Ethical investment" by religious aid agencies (Oikocredit)	**2.1**, 2.2, 3.2, **7.2**, 7.3, 8.1, 8.2, **10.2**
1 Diversity of values, cultures and living conditions: Diversity and inclusion	**12. Diakonie with an intercultural and inter-religious perspective** · Protestant Diakonie and Catholic Caritas · Inter-religious cooperation with non-Christian religious organisations and aid agencies · Welfare work of Islamic grassroots action groups/Islamic aid agencies · Social, ecological and peace commitment of Buddhist monks · The commitment of non-religious NGOs and its rationale · Christian-Hindu women's groups in India · social-pastoral campaigns at grassroots level in communities in Latin America and Europe	2.1, **4.1**, 7.3, **8.1**, **8.2**, 11.1

* The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.3.4.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type

Thematic area	Sample topics	Competencies*
18 Political rule, democracy and human rights (Good governance)	**13. Religious freedom and human rights** · Islamic declaration of human rights · The "Asian Values" debate · The constructive contribution made by religions to the development of human rights (esp. economic, social and cultural rights)	2.1, 5.1, 5.2, **6.1**, **6.2**, 9.1, 10.3
overarching	**14. Religious activism and civil courage** · Project ideas, simulation exercises and participation in campaigns within and beyond the local community · Invitations to politicians and other policy makers on the subject of global change	3.1, **3.2**, 8.1, **9.3**, **11.1**, 11.2

* The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.3.4.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type

4.3.4.4   Sample assignment: German Turks and Arabian Germans

This sample unit is not suited for comparing student achievements but gives an idea of the performance requirements for the relevant competencies at the end of Secondary Level I.

German Turks and Arabian Germans

Ömer was born in Turkey and has lived in Berlin with his family since his early childhood. Last night his father was beaten up, presumably by right-wing radical youth, and is now in hospital. Ömer meet his friends after school the next day.

Christian: "You know, Ömer, I feel really ashamed about what they did to your Dad."

Raschid: "Come on man, what are you on about? Why on earth should you feel ashamed? Were you one of them? No! Are these thugs part of your family, have you got a skinhead brother?"

Markus: "He's ashamed of being German."

Kenan: "And what about us? We're not German, I suppose? When are you guys going to realise you can't put us into different camps like this? All this nonsense about 'I'm ashamed of being German!' Only once we stop this rubbish can we, can we (…)"

Murat: "You can talk. You're more German than Turkish. You don't stand out one bit; you don't even try not to be like them."

Ömer: "You know what? You're really getting on my nerves with this Turks and Germans and Arabs stuff! What interests me is, are we friends or not?"

(Edited passage from Dilek Zaptcioglu (1998): Der Mond isst die Sterne auf, Stuttgart-Vienna-Bern, p. 128 f.)

Working steps (Time required: one double lesson)

1. Reading of the text with allocated roles and communication on the situation →
   What is going on here?
2. Working out the conflict in small groups
   Division into groups by drawing cards on which one of the boys' names and a task has been written (see Tasks)
   → Securing the results on posters
   · Course and results of the discussion in the group
   · The boys' answers (see second item of the tasks)
3. Presentation in the plenary, questions
4. Continuation (after the double lesson) in the form of a plenary discussion: What can we contribute to improve living together?

Tasks

Christian	· Consider, in your group why Christian feels ashamed and what he was thinking at that moment. · How could Christian answer Raschid and Kenan? Write your answer on your poster using the first person.
Raschid	· Consider, in your group what makes Raschid so upset and why he goes for Christian like that. · What could he tell Christian about his view on guilt and responsibility? Write your answer on your poster using the first person.
Kenan	· Consider, in your group what makes Kenan so upset and why he goes for Christian like that. · What could he tell Christian about what it means to be German or non-German? Write your answer on your poster; begin by completing the sentence: "Only once we stop this rubbish can we, can we (…)"
Murat	· Consider, in your group, what Murat could have noticed about Kenan which made him, in Murat's opinion, more German than Turkish. · Make a list on your poster of instances when we take people to be "foreign".
Ömer	· Consider, in your group, what being Turkish, German and Arabic might mean to Ömer and what you think of his viewpoint. · Make a list on your poster of what the six boys could do to strengthen their friendship.

Reference to competencies

Core competencies	Subject-related competencies
2. Recognising diversity:	1 and 2
4. Differentiation between levels of action:	1
5. Shift of perspective and empathy:	1 and 3
6. Critical reflection and comment:	1 and 4
8. Solidarity and shared responsibility:	1
11. Participation and active involvement:	1

Expected responses

(Standard at the end of Secondary Level I)

Students are able to:

1. (…) understand and express the complex issues:
    violence against others (xenophobia, radical right-wing youth groups)
    · individual and collective guilt and responsibility, and the specifics *family honour, historical guilt*
    · demarcation against people with a migration background by members of the culture receiving migrants (and vice versa), othering – cultural identity – youth self-identity
    · mixed culture – gradual differences in self-perception and external perception
    · possibility of an empathic human contact in spite of real or alleged differences; this option cannot only be described as utopia but it can be experienced in reality (friendship)

2. (…) contribute their own experiences to the reflexion on the problems described and understand the overall problem as being relevant and urgent for their lives

3. (…) arrive self-reliantly at possible solutions/options for action:
    · Keywords: "intercultural and inter-religious dialogue"
    · Keywords: "conflict strategies", "prevention of violence"

4.3.4.5   Bibliography

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4.3.5 Economic Education

(taken unchanged from the 1st edition 2007)

Gerd-Jan Krol and Andreas Zörner[132]

4.3.5.1 Contribution of Economic Education to Global Development Education/ESD

Scarcity and the market as central paradigms of economics

The economic dimension of development comprises specific tasks, laws and categories (codes).[133] Efficiency for example, is a typical economic value, and the question as to the efficiency of a measure is a genuinely economic question; any economic analysis must pose the question of the efficiency of an economic action. Economic actions are generally oriented at cost/benefit considerations. For companies, this means concentrating on profitability, profit maximisation and increased earnings. At the society level, this serves to promote the avoidance of waste; saved resources are then available for other uses. How is this to be understood?

According to economic theory, commodities are generally regarded as scarce. This is also true of the resources available for economic management. This view may seem surprising at first glance, but it is a consequence of the economic definition of scarcity. Scarcity in the economic sense does not merely mean that the number of commodities available is low in absolute terms, like water in the desert, but that not enough resources – raw materials, means of production, income etc. – are available to fulfil all needs at the same time. This applies to individuals, to companies and to societies alike. Economic management means dealing with scarcity. It means meeting human needs for commodities (goods and services), which require natural and other resources and factors of production (the "capital stock") for their manufacture, to the widest extent possible, subject to the universal dictate of scarcity. It means developing procedures that allow commodities to be allocated in society in a way that both gives primary attention to the most urgent needs and avoids negative consequences for the future supply of those commodities. Economic management is a key function of human existence. It is not an operation conducted for the primary purpose of serving corporate interests, but rather to serve societal goals.

Economic theory deals intensively with the market as a regulatory mechanism for the supply and exchange of scarce commodities and resources. In functional markets, behaviour that is based on the individual interest in maximising utility results in both efficient use of the factors of production and resources (allocation) and, via the "detour" of the profit motive, in a supply of scarce commodities.

These foundations of classic economic theory were formulated under the existing framework of industrialised countries. The limitation to the free availability of such commodities

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[132] In collaboration with Dieter Appelt and Hannes Siege

[133] Karpe, J.; Krol, G.-J.: "Funktionsbedingungen moderner Gesellschaften und Neue Institutionenökonomik als Herausforderung für die ökonomische Bildung". In: Krol, G.-J.; Kruber, K.-P. (Eds. 1999): Die Marktwirtschaft an der Schwelle zum 21. Jahrhundert – Neue Aufgaben für die ökonomische Bildung?, p. 21–48

as natural resources was not a consideration, nor was the global networking of economic processes between extremely heterogeneous economic structures. The present issues of sustainable development and globalisation have therefore provided good reason for a further development of this theory. Permanent ability of economic performance as a target component of sustainable development could for example be defined as economic management, which both secures the natural capital stock over the long term and builds up new possibilities of socially and ecologically appropriate income generation through investment. This is to be made possible by saving (reduced consumption sufficiency), and financed by borrowing, fed by the future yields on investments.[134] Economists largely agree that economic growth will ultimately be necessary in order to achieve this.

In the real world, a number of very different factors affect the functioning of markets. Important conditional factors for perfect markets include market transparency and free market access, along with a wide range of market participants on both the supply and demand sides. Real markets are more or less imperfect, however, whether this is because of physical access to the market; information about it (e.g. insufficient traffic infrastructure, insufficient communications possibilities, etc.); insufficient market transparency; unilateral power constellations of monopolies or oligopolies on the demand and/or supply side (e.g. oligarchies in developing countries with concentrations of economic and political power); or market access restrictions that are intentional or unintentional side effects of state regulations.

The economic challenges of globalisation
In the context of sustainability resolutions, the interaction of economy with the other dimensions of development, environment and social justice, plays a central role in the different institutional and natural framework conditions in industrialised, transition, emerging and developing countries. In many industrialised countries that enjoy a secure basic supply (a material affluence, in fact, compared to the global situation), the economic challenges are more likely to involve long term security in global competition, the future of labour, and the relationship to ecological precaution. One key concept is the "ecological restructuring of industrialised society".

In developing countries, the central economic policy goals involve the ensuring of basic human needs; the reduction of absolute scarcity, poverty and supply shortages; the protection from despotism; the freedom to develop individual potential, and the provision for the future. Economic growth is indispensable to overcome poverty and to secure the supply of growing populations.

The UNDP[135] therefore sees trade and investment as the decisive strategies for the attainment of the Millennium Goals[136] in the context of environmentally and socially compatible growth. They not only serve to reduce poverty; investigations have shown that trade and

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[134] See the stipulations in the German federal and state constitutions that net borrowing may not exceed total investment expenditures in the respective public budget
[135] United Nations Development Programme
[136] Millennium Development Goals, http://www.un.org/millenniumgoals, 27.10.2016

investment often promote the goals of greater justice as well.[137] Equal opportunity of access to national and international markets increases growth opportunities in a country, and it is at the same time of fundamental significance in bringing a lasting improvement for social justice. It turns out that many of the countries that have opened their national economies to the world market and made conditions for setting up companies easier, among other things, have made progress in development. Those countries that have been largely bypassed by the flow of world trade, on the other hand, or that have set up access barriers to economic activity are losing ground in comparison to the international situation.

In the discourse among economists on globalisation, there is competition between those approaches that see globalisation as a continuation of earlier developments and those that see it as a fundamentally new phenomenon:[138]

- The more or less "traditionalist" position sees globalisation as the increasing integration of national economies that will continue to exist. The national governments cooperate to frame and channel the forces of the market, and to shape economic processes at the national and international levels, thereby retaining their national social achievements.
- The "globalists", who compare the economic power of transnational corporations with that of nation-states, conclude that the latter have lost control over their national economies due to international economic integration and the power of the corporate groups. They see the nation-state functioning as little more than a kind of moderating authority between global forces and local markets, and the political sphere as being forced to adapt to business, not the other way around.
- The "transformationalists" emphasise the dropping costs of overcoming spatial constraints, particularly through the new possibilities of communication and information technology, the "destruction of space by time", just-in-time production, and the resulting ability of the "world economy" to work together in real time. They see these as completely new conditions.

What is noticeable is that these approaches formulate important lines of development that do not apply equally to all countries and areas. Global economic integration is characterised by great differences. Poor countries in particular have remained on the outside to date. Thus, for example, the "digital divide" is characteristic of internal differences within countries: in some developing countries, often only 3 % of the population have the prerequisites for Internet access, while other developing countries are building a flourishing digital service sector for the industrial countries. As to the question of whether poor countries stay poor because they are excluded from globalisation or whether they are excluded from globalisation because they are too poor, economists tend towards the first answer.

[137] World Bank (2006): World Development Report: Equity and Development. Sonderausgabe für die Bundeszentrale für politische Bildung, Düsseldorf, http://siteresources.worldbank.org/INTWDR2006/Resources/477383-1127230817535/082136412X.pdf, 27. 10. 2016

[138] Wollenberg, K.: "Globalisierung als Gegenstand wirtschaftswissenschaftlicher Betrachtung – ein historischer Überblick". In: Meier-Walser, R.C., Stein, P. (Eds. 2004): Globalisierung und Perspektiven internationaler Verantwortung. Munich. Wollenberg refers particularly to: Thomson, G.: "Economic globalisation?". In: Held, D. (Ed. 2000): A Globalizing World. Culture, Economics, Politics, London, New York, p. 85 f., and Zürn, M. (2001): "From Interdependence to Globalisation". In: Handbook of International Relations, London, p. 238 f.

Economy and sustainability

Economy is linked to the other dimensions of development in many ways. It reacts to the initial contributions of the other partial systems, is dependent upon them, and is at the same time itself a supplier of contributions to these subsystems.

The principle developed in Rio on the equal importance of environment and development means that the goal of conservation, particularly of nature, must be harmonised with the economic and societal requirements of progress, combating poverty successfully, and other developments.[139] This refers to the different "logic systems" of the development dimensions of environment and economy. While sustainability in terms of the environment aims at the protection of natural resources, economy depends on their use, even if there are attempts in recent times to disconnect economic growth from resource consumption. Sustainable development must therefore coordinate on an equal basis, or to a certain degree integrate, the different logic systems of the development dimensions. Following this aim the various priorities of the industrial and the developing countries must also be fairly balanced. Neither environmental protection nor the implementation of social standards should be strived for at the expense of the improved satisfaction of human needs, especially in poorer countries.

In order to overcome global economic disparities, the developing countries are demanding that the industrial countries further open their markets, dismantle trade barriers, and create fair rules of international economic exchange. On the path towards social and economic coherence the potential tensions in view of economic interests, labour markets and social standards must not be ignored in any realistic analysis of conflict resolution. If the standards of the industrial countries were transferred to the developing countries, the latter would lose their competitive advantage. This is only one example in this context of the problem that "good intentions" certainly do not always produce good results. Economics considers such issues.

The possible consequences of finite natural and non-renewable resources for longer-term development, and hence for economic growth, have been increasingly discussed in economics since the seventies, as in the Club of Rome's *Limits to Growth*.[140]

Numerous observations have shown that people as a rule favour short-term, immediate satisfaction of needs over future satisfaction. Moreover, it has been demonstrated that they do not use cost-free, freely accessible resources economically, even if collective overuse will in the long run damage these resources. This applies to corporations as well, and particularly so, when their strategic decisions in liberalised capital markets are increasingly oriented towards shorter time horizons.

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[139] Eisermann, D. (2003): Die Politik der nachhaltigen Entwicklung. Der Rio-Johannesburg-Prozess. Themendienst des Informationszentrums für Entwicklungspolitik Nr. 13, Bonn

[140] D. Meadows et al. (1972): Limits to Growth. The limits to growth were discussed even in the 19th century; see the economist Thomas Malthus, who in 1798 claimed the existence of natural limits to food production, given rapid population growth

Framing market economies towards sustainability is therefore an important interface between the economic and political spheres: public policy must shape the framework under which stakeholders pursue their goals according to environmental, economic and development-policy requirements. This can only be expected if citizens support it and participate in its creation. An example of this three-part shaping of the framework can be seen in the introduction of an ultimately worldwide emissions trading system, under which cost allocation can be tied to the emitter via a north-south resource transfer system. After agreement on an overall-reduced quantity of emission rights, countries in the southern hemisphere could sell the emission rights issued to them that they do not yet need themselves at scarcity prices. They could agree upon an appropriate initial distribution, e.g. equal per-capita to industrialised countries, and thus provide the latter with the time they need to follow sustainable development pathways. Condemning such a scheme as a modern form of selling indulgences complicates the search for approaches that cooperatively defuse conflicts between environment, economy and development.

Economics: An indispensable element of Global Development Education/ESD
If one understands global development as a challenge to the process of education, as the documents of the UN conferences in Rio de Janeiro and Johannesburg stress, then education itself must study the link between the dimensions of sustainable development – and hence their specifics – including economics. Thus Education for Sustainable Development cannot manage without a sound foundation in Economic Education. It can both guard against absolutising the economic sphere and at the same time help to recognise the embedding of economic actions in politics, society and the environment.

Economic Education helps to distinguish where individual morals and responsibility suffice for solutions to problems, and where they are limited by systemic borders;[141] where the maxims of business management play a role; where macro-economic frameworks have to be considered; and where economic structures become effective in globalisation today and must be shaped.

Economic Education is a subject of its own in only a few German federal states to date. Usually, it is part of an integrated subject, mostly one in which several subject perspectives are also applied to issues of global development. Integrated school subjects provide the opportunity to show the diversity of approaches to the world from the point of view of economics and of other academic disciplines, as well as the possibilities for mutual reference and addition. Interdisciplinary work can thus receive a more transparent foundation.

In the field of economics, the goal cannot of course be to qualify students as experts that can, for example, comprehensively analyse location decisions of international corporations. However, they should be able to focus on parameters of actions and decision-making situations that are important for the economic perspective and to take a well-founded position on this basis. They should also be able to assess economic issues in their environmental, social and political contexts.

[141] Bayertz, K. (1995): "Eine kurze Geschichte der Herkunft der Verantwortung". In: Bayertz, K., (Ed.): Verantwortung. Prinzip oder Problem?, Darmstadt, p. 3–71

Here the students' *Lebenswelt (lifeworld)* contexts, their own perspectives for action, and their own contacts with economic and other globalisation processes are of special importance. In this context, not only immediate *Lebenswelt (lifeworld)* references, such as private consumption, but also globalisation experiences conveyed by the media, or students' personal and professional expectations for the future, must be included. When vocational elements are included in Economics Education, competencies generally aimed at the ability to act in an international context will gain in significance.

For the Intermediate Leaving Certificate (Secondary Level I), students should have gained the subject-related competencies of the following list. They can be acquired by dealing with of various topics and contents (see 6.3, Sample topics).

4.3.5.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies of Global Development Education/ESD

The students are able to (…)

	Core competencies	Subject-specific competencies
Recognising	**1. Acquisition and processing of information** (…) acquire information on issues of globalisation and development and process it topic-relatedly.	1.1 (…) gather information on economic issues and development (or obtain it from sources provided), and process it self-reliantly.
		1.2 (…) gather information about relevant political, social and environmental aspects of economic issues, and examine their relationship.
		1.3 (…) recognise the significance of information for the results of market decisions.
	2. Recognising diversity (…) recognise the socio-cultural and natural diversity in our One world.	2.1 (…) distinguish economic systems from subsistence economy to the globalised market.
		2.2 (…) examine the dependence of economic processes on social, political and environmental conditions in various parts of the world.
		2.3 (…) recognise market processes as an open method for problem solutions.
		2.4 (…) recognise the economic interests of industrialised and developing countries from a macro-economic point of view related to various segments of the population.
	3. Analysis of global change (…) analyse processes of globalisation and development by using the concept of sustainable development.	3.1 (…) recognise triggers and interconnected effects of technological, societal and environmental change for worldwide economic developments.
		3.2 (…) use economic parameters such as national product, consumption, production, foreign trade when analysing globalisation and development processes, and recognise their informative value.
		3.3 (…) analyse the effects of economic globalisation and development processes on sustainability.
	4. Differentiation between levels of action (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	4.1 (…) recognise the consequences of globalisation for their own households and their individual consumption.
		4.2 (…) give examples of changes in their own community caused by globalisation.
		4.3 (…) recognise the reduced power of the nation-state to shape economic issues, and the concomitant necessity of international cooperation.
		4.4 (…) examine the activities of corporations, depending on their size and their degree of world market involvement.

	Core competencies	Subject-related competencies
Assessing	**5. Change of perspectives and empathy** (…) realise, appreciate, and reflect upon own and others' values, and their significance for life.	5.1 (…) assess the effect of incentives as well as the (expected) costs and benefits for alternative actions.
		5.2 (…) become conscious of the situation and location-dependent nature of economic positions and decisions when passing judgement.
		5.3 (…) comprehend foreign values in economic decision-making and compare them to their own judgements.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orientating at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) examine tensions between economic development and respecting human rights.
		6.2 (…) describe and assess globalisation processes as both opportunities and risks.
		6.3 (…) relate their statements on global economic problems to the principle of sustainable development.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), with respect to diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) draft economic targets and criteria for sustainable development projects.
		7.2 (…) take into account various interests and conditions in the assessment of development measures.
		7.3 (…) consider the short and long-term consequences in their assessments of economic development measures.

	Core competencies	Subject-related competencies
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) recognise the possibilities of individual economic engagement, and support sustainable development in this way.
		8.2 (…) develop approaches to solutions at various levels of society to implement economic goals for sustainability.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	9.1 (…) develop ideas for cooperative solutions to problems where common interests are overlaid with conflicts over distribution and power.
		9.2 (…) describe approaches that can resolve economic conflicts between industrial and developing countries through trade and economic cooperation.
		9.3 (…) make suggestions for economic incentives that can contribute to resolving problems according to the principle of sustainable development.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) develop direction goals for complex economic problems.
		10.2 (…) justify their own position with regard to an uncertain economic future.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	The students (…) 11.1 know how they can contribute to sustainable development in their role as consumer, and are willing to do so.
		11.2 can make their own contributions towards the framework for sustainable development.

4.3.5.3   Sample topics

The sample topics listed have been chosen for learning units or projects and do not illustrate thematic priorities. Instead, they represent topics that are obvious or have proven themselves in practice to support the development of ESD competencies in subject-specific as well as in interdisciplinary or cross-disciplinary learning units.

Thematic areas	Sample topics	Competencies*
4 Commodities from around the world: Production, trade and consumption	1. **Production all the way around the world.** Production of a commodity by international division of labour (e.g. motorcar or textile industry)	2.1, 2.2, 3.1, **3.3**, **4.1**, **4.2**, **4.3**, **6.1**, **6.2**, **11.1**
13 Globalisation of economy and labour	2. **Fair trade**	2.1, 2.2, 2.3, **3.3**, **4.1** **5.1**, **5.2**, **6.2**, **6.3**, **8.1**, **8.2**, **9.2**, **9.3**, **11.1**
7 Education	3. **Does education pay off?** Costs and benefits of education from an individual and societal perspective	**5.1**, 5.3, **10.2**
9 Protection and use of natural resources	5. **The market: Only the cause or also a solution to environmental problems?**	2.1, **2.3**, **3.3**, **4.2**, **5.1**, **9.3**, 10.1,
11 Global environmental changes	6. **International climate protection through trade in emission certificates**	**2.3**, 3.3, 4.3, 5.1, 6.3, 7.1, 7.2, 7.3, 8.2, 9.1 **9.3**
10 Opportunities and risks of technological progress	7. **From the carrier pigeon to the internet** The significance of communications technology for economic decision-making processes and structures	**3.1**, **3.3**, **4.1**, 4.3, 5.1, 6.2, 7.3
13 Globalisation of the economy and labour	8. **Regional and everyday globalisation**	1.1, 1.2, **2.2**, **2.3**, **3.3**, **4.1**, **4.2**, **5.1**, 6.2, 6.3, 7.3, 10.2, 11.1
	9. **Location decisions**	2.2, 2.3, 3.2, 4.2, 5.1, **7.3**,
	10. **Globalisation and multinational corporations** Environmental and social standards in danger	2.1, **3.3**, **4.3**, **6.1**, 6.2,
18 Political rule, democracy and human rights (Good Governance)	12. **When and how do purchaseboycotts work?**	**2.2**, **6.1**, 7.3, 8.1, 11.1
	13. **Economic development and human rights**	**2.2**, 3.3, 5.2, 5.3, 6.1, 6.2, 8.2, 9.1, 9.2, 9.3

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*   The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.3.5.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type

4.3.5.4   Sample assignment: Location decision by DaimlerChrysler

Thematic embedding

The assignment refers to thematic area 13, "Globalisation of the economy and labour". It is important for an economic perspective of the situation that the pupils know the significance of costs and incentives on decision-making by business stakeholders. At the same time, when working on Part 2 of the assignment, they should have a simple business cycle in mind. It is expected that they know that corporate decisions are supported by consumers, and that corporations that operate in unknown markets must assume that the consumers have interests of their own. Pupils should already have been taught about location decisions by corporations operating internationally.

Time allotted: 45 minutes

Reading of the text: 8 minutes

1st subtask: 10 minutes
2nd subtask: 17 minutes
3rd subtask: 10 minutes

Relocation of Production

1. Describe briefly the **interests** of the employees presented in the text (M 1) as well as of the corporation DaimlerChrysler.

2. Analyse what in this example is typical of the problems of a globalised economy.

3. Take a position on this statement: From the point of view of development policy, we should welcome the movement of jobs from Germany to developing or emerging countries like South Africa.

MATERIAL

M 1: Locations and prospects

Wilfred Mestile is one of the privileged workers in South Africa. For seven years, he has lived in the new neighbourhood of Sunnyridge, an estate built by DaimlerChrysler for its workers. Mestile, 42, lives in a 45 square metre cottage with his daughter and his wife. (…) Mestile installs the petrol tanks into Mercedes C-Class cars, usually for 40 hours per week, but since March, it has been 45 hours, because there are so many orders. With overtime pay and bonuses, he grosses 860 € a month.

Thomas Langenbach also works on the C-Class, but he's in the paintshop in the Daimler plant in Bremen. He drives an hour every day from Bremerhaven, where he lives in a small detached house with his wife and his three sons. He used to be able to drive from Bremerhaven in a car pool, but now the working schedules are so different that he has to drive alone. The 44-year-old Langenbach earns 2,825 € gross per month, and works 35 hours per week. (…)

Artur Ziebarth also works for Daimler, in the Sindelfingen plant. He is a trained motor vehicle mechanic and installs electric cables in the C-Class. The 32 year-old earns 2,904 € gross per month, and lives with his wife and three children in the basement of his wife's parents. In the past, he frequently got extra pay for night shifts, which was good, but because "Daimler is saving money", there are hardly any night shifts any more. (…)

Mestile in South Africa, Langenbach in Bremen, Ziebarth in Sindelfingen: all three work for the same corporation, and assemble the same car. (…) And all three were being played off against each other in recent weeks: the workers in South Africa have been demanding an eight percent increase in pay. The factory management has repeatedly threatened to shift production to India or Namibia, where the luxury sedans can be built more cheaply. On the other hand, at the Stuttgart Daimler head office, the Mercedes boss has demanded of the works council heads at all German plants that they save 500 million € every year, otherwise 6000 jobs in Sindelfingen will be cut, and the production shifted to South Africa and Bremen. (…)

In principle, economists see it as logical that a corporation should want to increase its profits. (…) That logic, however, is occasionally not obvious to the employees. Helmut Lense, chair of the works council in the Untertürkheim plant in Stuttgart, found that out (…) when he had to try to sell a so-called compromise to several thousand Daimler workers at a plant meeting. (…) Only with difficulty was Lense, also a member of the executive board of the union, IG Metall, able to convince the staff that they would get almost 2.8 % less pay as of 2007, that the canteen staff, the plant security staff and the print shop workers would have to work four hours longer in future, and that paid breaks were to be reduced for everyone. (…)

[Mestile in South Africa, Langenbach in Bremen, Ziebarth in Sindelfingen] know that Mercedes was the most successful division of the Daimler group last year, with 3.1 billion € in profits, but they also know that other car manufacturers, BMW for example, make even higher profits, and that the logic of shareholder value is what counts today. They have also seen a report that the corporate consultant McKinsey considers one Daimler employee in ten to be unnecessary. (…) And after all, they can read newspaper articles every day about companies that are actually shifting their production to Eastern Europe, or all the way to Asia.[142]

Markus Grill, Mitarbeit: Nikola Sellmair, Mathias Rittgero: Kampf unter Brüdern.
In: stern.de vom 28. 7. 2004

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[142] Source: Daimler-Beschäftigte: Kampf unter Brüdern, 29. 07. 2004
http://www.stern.de/wirtschaft/arbeit-karriere/arbeit/527557.html, 27. 10. 2016

Expected responses

Relation to competencies (see chapter 4.3.5.2) **FoR = Field of Requirement** (see chapter 4.0)	**Expected responses** (intermediate level) The formulations are based on the definition of the respective subject competencies and refer to the contents of the task.
Task 1 competency: 1.1 FoR: I	1.1 The students can gather information on economic issues and development (or obtain it from sources provided), and process it self-reliantly. The following should be identified: **Employee:** Job and income security **Corporation** (DaimlerChrysler): profit, satisfaction of shareholder demands (shareholder value)
Task 2 competency: **3.3**, 5.1, 5.2, 7.2 FoR: II	The students are able to (…) 3.3 (…) analyse the effects of economic globalisation and development processes on sustainability. 5.1 (…) assess the effect of incentives as well as the (expected) costs and benefits for alternative actions. 5.2 (…) become conscious of the situation and location-dependent nature of economic positions and decisions when passing judgement. 7.2 (…) take into account various interests and conditions in the assessment of development measures. The students should correctly describe the majority of the consequences of globalisation processes listed, which should not generally be assessed as positive or negative: · In principle, globalisation processes provide advantages and disadvantages, opportunities and risks, to the societies concerned. · As a rule, these are distributed unevenly amongst the individual members of society or economic stakeholders. · For example, primarily the consumers in the developed countries profit from cheaply produced commodities, if corporations choose their locations wherever they can produce more economically. · At the same time, employees in developed countries can be threatened or affected by wage cuts, overtime and increased job insecurity. · Employees want the pay for their work to be as high as possible; at the same time, they are interested in having "their" corporation stay competitive on the world market, and keep, or even expand, its market share.
Task 3 competency: **6.2**, 7.2, 7.3, 8.2, 9.2 FoR: III	The students are able to (…) 6.2 (…) describe and assess globalisation processes as both opportunities and risks. 7.2 (…) take into account various interests and conditions in the assessment of development measures. 7.3 (…) consider the short and long-term consequences in an assessment of economic development measures. 8.2 (…) develop approaches to solutions at various levels of society to implement economic goals for sustainability. 9.2 (…) describe approaches that can resolve economic conflicts between industrial and developing countries through trade and economic cooperation.

Relation to competencies (see chapter 4.3.5.2) **FoR = Field of Requirement** (see chapter 4.0)	**Expected responses** (intermediate level) The formulations are based on the definition of the respective subject competencies and refer to the contents of the task.
	The students can take an argumentative position on the statements, and take several of the following aspects into stringent consideration: · Production shifts have both positive and negative consequences, depending on your point of view · The positive consequences from the point of view of development policy would be the strengthening of the economy of the developing or emerging countries, and the creation of jobs, as well as the associated reduction in migration and the general economic and political stabilisation · The repercussions for Germany could, however, be a corresponding loss of jobs, with the associated social costs which could lead to crises and further pressure for reforms which would in turn endanger the acceptance of development policy measures · Successful forms of cooperation could provide positive impulses, both in the developing country and in Germany.

4.3.5.5 Bibliography

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4.4 Secondary Level I: Activity field: Mathematics – Natural Sciences-Technics

4.4.1 Mathematics

4.4.2 Natural Science Education (Biology, Chemistry, Physics)

4.4.1 Mathematics

Mathematics – didactical part

Kristina Reiss, Stefan Ufer, Volker Ulm, Gabriele Wienholtz

4.4.1.1 Contribution of the subject Mathematics to Global Development Education/ESD

Mathematics is a science of structures. These structures are firmly integrated in the real world, where they are the foundation for appropriate modelling. The identification of suitable variables and their permanent evaluation have a crucial role to realise structures and tendencies even in apparently chaotic situations, particularly in processes affected with uncertainty and without ideal solutions like silver bullets. Even if it is not the inherent task of Mathematics to define e.g. indicators for the status or the change of a society, they can yet provide essential contributions for evaluation and hence for the assessment of their significance. Mathematics can help to generate statistically validated correlations or falsifiable hypotheses from "sensed correlations". Due to its universal acceptance, Mathematics has the chance to support the discourse of global sustainable development scientifically and to structure complex processes so that everyone can have access to them.

In the past years, Mathematical Education has changed, mainly with the introduction of national educational standards (see Standing Conference of the Ministers of Education and Cultural Affairs of the federal states/Länder in the Federal Republic of Germany/Kultusministerkonferenz 2003). This especially applies to the higher significance of learning results in terms of mathematical competencies (see Klieme et al., 2003). It is about more than subject-specific contents but also about the application of these contents in different real world contexts. Global Development Education/ESD is such a context of application with ecological, economic, social and political significance.

The educational standards differentiate between guiding mathematical principles and general mathematical competencies. The guiding principles (number, measuring, space and form, functional context, data and coincidence) are characterised by content and identify essential parts of the subject. The general competencies (arguing, solving problems, modelling, using presentations, working with symbolical, formal and technical elements, communicating) describe the work methods which are particularly relevant for the subject. Mathematics is a basic subject, so that in principle aspects from all competency areas can be included in Global Development Education/ESD. However, there is a special reference to contents in the context of the guiding principles *Functional context* or *Data and coincidence*, which shall be discussed as examples in the following part.

The term 'function' is not only central for mathematical sciences but also for its applications. The educational standards explain that the lessons are meant to use functions to describe quantitative contexts and to analyse and interpret these contexts. Realistic problems are very essential in this regard, i.e. problems that show the practical relevance of mathematical work. Linear, quadratic and exponential functions are explicitly mentioned to be used to

describe and process problems.* Working with data is another core area of Mathematics and Mathematical Education. The requirements mentioned in the educational standards also show this practical relevance. In particular, it is about the collection, storage and presentation of data, analysis of graphical displays and tables of statistical surveys, interpretation, reflection on data and the assessment of data-based arguments.*

The reference to the educational standards is emphasised here, not only due to the subject-related and curricular requirements. This access is recommended because the objectives of Global Development Education/ESD and the educational standards for Mathematics allow to identify aspects of a common educational philosophy. Following Winter (1995), the preamble of the educational standards for the Secondary School Certificate in Mathematics states that Mathematics lessons should contribute to the students' ability to "realise and understand technical, natural, social and cultural phenomena and processes by means of Mathematics and to evaluate them by applying mathematical criteria" (see Standing Conference of the Ministers of Education and Cultural Affairs of the federal states/Länder in the Federal Republic of Germany/Kultusministerkonferenz 2003, p. 6). Here, the terms *recognising* and *assessing* are not explicitly mentioned but their meaning can be found.

The guiding principles describe cumulatively to be acquired knowledge. Accordingly, across the forms/years we find links to Global Development Education/ESD which support the acquisition of competencies. In practice, the students can learn by collecting, processing and presenting data and by modelling datasets, like courses of development, if they use specific types of functions and a systematic adjustment of parameters. Furthermore, different models can be compared with respect to their usefulness for the collected data and the deduced statements, and forecasts can be evaluated. But Global Development Education/ESD offers more than an authentic context for the application of mathematical concepts. Through the acquisition of competencies in this learning area, knowledge can also be gained about how mathematical models can lead to prognoses. If they have an understanding for mathematical work, students can handle data, models and the deduced statements on social, ecological, economic and political problems of global development in a reflective and critical way. Global Development Education/ESD offers multiple possibilities to structure global challenges by means of Mathematics. The mentioned guiding principles are a starting point to focus on the following proposals. The focus on the Millennium Development Goals and SDGs can for instance help to recognise the contribution of Mathematics to the discussion of these challenges and to see what kind of judgements and options for action they imply. The central mathematical task is to construct and compare models and to adjust parameters.

The following subject-related competencies are implicitly and explicitly related to the educational standards for the Secondary School Certificate. Thus, the so called general mathematical competencies from the educational standards like communication or modelling are addressed. Especially the subject-related specific competencies show the multiple possibilities for mathematical applications and hence support an essential claim of the educational standards.

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* See Standing Conference of the Ministers of Education and Cultural Affairs of the federal states/Länder in the Federal Republic of Germany/Kultusministerkonferenz 2003

4.4.1.2 Subject-related competencies (Secondary School Certificate/10 school years) linked to the core competencies for Global Development Education/ESD

Students are able to (…)

	Core competencies Global Development Education/ ESD	Subject-related competencies
Recognising	**1. Acquisition and processing of information** (…) acquire information on issues of globalisation and development and process it topic-relatedly.	1.1 (…) use the possibilities of global communication (media, internet) to acquire quantitative data on globalisation and development.
		1.2 (…) analyse and understand charts and tables with data on global issues.
		1.3 (…) acquire and present with respect to the addres sed problems data on selected issues of global development and on the process of sustainability.
	2. Recognising diversity (…) recognise the socio-cultural and natural diversity in the One world.	2.1 (…) ask in different situations appropriate mathematical questions for analysing global developments, realise differences or common structures, and describe them.
		2.2 (…) differentiate and treat accordingly quantifiable and not quantifiable factors for the description of the socio-cultural and natural diversity.
		2.3 (…) understand that different models on global develop-ments may lead to different results in the same context, that they may provide only partial descriptions, so that they have to be adjusted.
	3. Analysis of global change (…) analyse processes of globalisation and development by using the concept of sustainable development.	3.1 (…) realise that mathematical descriptions of the world are only models but that they can be useful to answer questions of sustainable development.
		3.2 (…) create models for forecasting global developments and estimate their reliability.
	4. Differentiation between levels of action (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	4.1 (…) analyse the influence of local/regional conditions of global development on the model inputs.
		4.2 (…) describe the significance and consequences of mathematical models for the levels of action in global development, from the individual to the global level.

	Core competencies Global Development Education/ ESD	Subject-related competencies
Assessing	**5. Change of perspectives and empathy** (…) realise, appreciate, and reflect upon own and others' values, and their significance for life.	5.1 (…) realise divergent applications and interpretations of mathematical results regarding questions of global development, against the background of different value systems and cultures.
		5.2 (…) become aware of the implications of mathematical models about global development issues for themselves and others.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orientating at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) balance between different mathematical models on a problem of global development and evaluate their respective significance for sustainable development.
		6.2 (…) interpret the selection of mathematical models on issues of global development and the validity of the acquired data, against the background of interests in society and the formation of an international consensus (e.g. on global conferences).
		6.3 (…) critically evaluate presentations of data and forecasts on issues of global development, and check their reliability.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), with respect to diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) assess the concepts of development measures by using data and mathematical models from the participants' different perspectives.

	Core competencies Global Development Education/ ESD	Subject-related competencies
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) realise that for many other sciences Mathematics offers basic tools, which requires professional responsibilitiy. 8.2 (…) accept for their own thinking that mathematical statements, analyses and forecasts can help to contribute to the formation of structures and opinions and to take over personal responsibility for sustainable development.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	9.1 (…) appreciate the role of Mathematics with globally valid standards for a rational discussion of issues of global development. 9.2 (…) use the possibilities that Mathematics offers to rationalise communication and support intercultural understanding in issues of global development.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) assess – in their activities – the possibilities and limits of mathematical methods to reduce the complexity of global change. 10.2 (…) safeguard, by choosing appropriate mathematical methods, their ability to act in personal and professional contexts in times of global change.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	11.1 (…) realise their own options in view of data on global issues, and use them when persuing economic, political, social and ecological objectives. 11.2 (…) assess and correct with the help of mathematical methods the consequences and impacts of their own actions with regards to the objectives of sustainable development.

4.4.1.3   Sample topics

The proposed sample topics are assigned to the mathematical principles *Functional Context, Data* and *Coincidence.* They don't claim to set content priorities, but represent topics that are obvious or that have proven themselves in practice to support the development of ESD competencies in subject-specific as well as interdisciplinary or cross-disciplinary learning units.

Mathematical principle	Thematic area	Sample topics	Competencies*
Functional context	**6 Illness and health**	· Frequency and dissemination of diseases in different countries and in historical perspective	1.1, 1.2, 3.1, **3.2**, **7.1**
	9 Protection and use of natural resources and generation of energy	· Presentation of energy resources, generation and consumption of energy in the course of time – future prognoses	**1.1**, **3.2**, 4.2, 5.1, 6.2, 6.3, 8.2
	10 Opportunities and risks of technological progress	· Radioactive decay with the example atomic power plants	2.1, 3.2, **8.1**, 8.2, 9.1
	11 Global environmental changes	· Climate data and climate change with the example global warming	1.1, 1.2, **2.3**, 3.1, 4.1, **3.2**, 4.2, 5.1, 5.2, 6.1, 6.2, 6.3, 8.2, 9.1, 9.2, 11.1, 11.2
	12 Mobility, urban development and traffic	· Development of street traffic and exhaust emissions in different countries in the course of time	1.1, 1.2, 4.1, **4.2**, 5.1, 8.2, 11.1
	13 Globalisation of the economy and labour	· Interest and repayment for private and public loans · Developments at the stock exchange	1.1, **1.2**, **8.1**, **8.2**, 9.2
	14 Demographic structures and developments	· Population growth in different world regions	**1.1**, 1.2, 2.2, **2.3**, 3.1, 3.2, 3.3, 6.1

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*   The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.4.1.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type

Mathematical principle	Thematic area	Sample topics	Competencies*
Data and Coincidence	5 **Food and agriculture**	· Household water demands in certain countries and worldwide	1.1, 1.2, 1.3, 2.3, **3.2**, 4.1, 5.1, 11.1
	6 **Illness and health**	· Availability of physicians, midwives and medicine in industrialised and developing countries	1.1, 1.2, 3.2, 6.2, 6.3, **7.1**
	7 **Education**	· Education and profession in industrialised and developing countries: from child work to the elite university	1.1, 1.2, 2.2, **3.2**, **7.1**, 9.2
	8 **Globalised leisure-time activities**	· Influence of holiday travels on environment and economy in the target countries	1.1, 1.2, 2.1, 4.1, **3.2**, 4.1, 11.1
	9 **Protection and use of natural resources and generation of energy**	· Generation and consumption of energy in the household, in the region, in certain countries and globally	1.1, 1.2, **1.3**, **11.1**, 11.2
		· The ecological footprint	1.1, 2.2, 4.1, 4.2, **11.1**
	13 **Globalisation of economy and labour**	· Crises and upswings – data on public debts, per-capita-debts, gross national products and labour markets	1.1, 1.2, 2.1, 2.2, 5.1, 6.2, 6.3, **8.2**, 9.2
	14 **Demographic structures and developments**	· Data and consequences of demographic change in Germany and the world	1.1, 1.2, 2.1, **3.2**, 4.2, 6.2
	15 **Poverty and social security**	· Financing of social systems like pension schemes, unemployment insurance	2.1, 2.3, **3.2**, 8.2
		· Television, computer and a bowl of rice – the global distribution of wealth	**1.1**, **1.2**, 2.1, 11.1

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*   The numbers refer to the ESD core competencies und subject-related competencies (see chapter 4.4.1.2) that can be (further) developed while focusing on the respective topic; the main emphasis is on the competencies in bold type

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Mathematics – learning unit

Antonius Warmeling

4.4.1.5 Competency-oriented learning unit: Eradicating extreme poverty: A global development target (class 8 and older)

On the topic

Poverty does not only mean a lack of income, appropriate clothing, food, shelter, health and education, but also the connected state of social deprivation. The causes and consequences are confusingly complex. The root causes for poverty and hunger can be wars, crop failures, climate changes, lack of jobs or unfair dependencies – and all of them affect one another. Furthermore, material poverty goes along with immaterial poverty, because poor people don't have access to education and health care.

There is poverty all over the world, but in different forms. Apart from the increasing ecological crises and risks, poverty is the greatest challenge for sustainable development on all levels of activity. As defined by the World Bank, absolute or extreme poverty denotes a daily income of 1.90 USD)[143] per person. Globally, there are about 1.2 billion people in this category.

The Millennium Development Goals agreed upon by United Nations at the beginning of the millennium "were a pledge to uphold the principles of human dignity, equality and equity, and free the world from extreme poverty. The MDGs, with eight goals and a set of measurable time-bound targets, established a blueprint for tackling the most pressing development challenges of our time." (Ban Ki-Moon 2014[144]).

1 ERADICATE EXTREME POVERTY AND HUNGER	The percentage of people who suffer from hunger and extreme poverty, should be halved.	**2 ACHIEVE UNIVERSAL PRIMARY EDUCATION**	Complete primary education for boys and girls should be guaranteed worldwide.
3 PROMOTE GENDER EQUALITY AND EMPOWER WOMEN	Development without women is impossible; hence, real gender equality should be achieved.	**4 REDUCE CHILD MORTALITY**	Infant mortality, often due to insufficient vaccination etc. should be reduced by two thirds.

[143] The international poverty line corresponds to the average poverty line of the 15 poorest developing countries. This monetary indicator for absolute or extreme poverty revised by the World Bank in Ocober 2015 equals the purchasing power of former indicators (since 1985 1.01 USD, since 1993 1.08 USD and since 2005 1,25 USD). Purchasing power parities (PPP) allow for a more valid comparision between countries than exchange rates. The revised international poverty line of 1.90 USD takes account to the fact that the most recent determination of prices (2011) in poor countries resulted in distinctively lower prices compared to the USA as in 2005. Lower prices in poor countries mean that the purchasing power of their currency has risen. Statictically, people could buy in 2011 with 1.90 USD the same as with 1.25 USD in 2005. According to the UN Millennium Development Report 2015 http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20%28July%201%29.pdf, 27.10.2016
836 mill. people in developing countries lived in extreme poverty (14% of their population)
[144] From the Foreword of: United Nations (2014): Millennium Development Goals, Report 2014 http://www.un.org/millenniumgoals/2014%20MDG%20report/MDG%202014%20English%20web.pdf, 27.10.2016

5 IMPROVE MATERIAL HEALTH	Maternal mortality often is due to insufficient health care and early pregnancy. It should be reduced by two thirds.	**6** COMBAT HIV/AIDS MALARIA AND OTHER DISEASES	The dissemination of HIV, malaria and other diseases should be stopped and a trend reversal achieved.
7 ENSURE ENVIRONMENTAL SUSTAINABILITY	Our natural recourses should be protected and at the same time people's basic needs, f.e. access to clean drinking water, improved.	**8** GLOBAL PARTNERSHIP FOR DEVELOPMENT	Industrial and developing countries should accept their joint responsibility to combat poverty.

To sensitise students for these complex challenges and to enable them to take action – is a central concern of Global Development Education/ESD. Mathematical education can provide orientation for the formation of opinions, for decisions and activities as well as for changes in personal attitudes and the development and change of practices in society.

In the following learning unit, three Millennium Development Goals shall be examined with regard to the question to what degree the goals which had been agreed along criteria will be reached by 2015 and which prognoses can be made for achieving new goals in the context of the 2030 Agenda. The necessary modelling process with its assumptions and restrictions has to be conducted consciously in order to be able to appropriately relate the answers of Mathematics back to the initial situation and the setting of goals. In particular, it needs to become clear that the available data – even if they are differentiated regionally – have only limited validity for poverty in reality and its respective causes and effects. Furthermore, Secondary Level I education needs to take into account that the procedures and algorithms which are either well known or need to be learned, have to suffice for the appropriate processing of the model.

The Millennium Development Goals (and after 2015 the Sustainable Development Goals – SDGs[145]) are suitable for a discussions in Mathematics, because they are subject to constant monitoring with regard to the achievement of the goals covered by regular United Nations reports. The students can research and evaluate the available data and work on forecasts based on these findings.

In order to enable investigations in class 8 to 10, MDGs 1, 4 and 5 and the respective indicators have been selected because they
· can be understood by students of that age (14 years and older),
· offer an easy access to the link between goal and indicator,
· show development which can be interpreted in a linear way.

Particularly for the 10th class or following years, the example is suitable to differentiate between exponential and linear processes, as Heinz Böer (2009, pp. 63 ff.) shows in detail.

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[145] For certain SDGs, this learning unit can be developed beyond 2015. Information on the SDGs and their indicators can be found on http://sustainabledevelopment.un.org/?menu=1300, 27.10.2016

Competency grid (for tasks 1–4)

This learning unit is meant to enhance the core competencies 1, 3, 4, 6, 7 and 8 of the Curriculum Framework. The three attainment levels for the Secondary School Certificate (Level I) describe the expected results with regard to the performance evaluation and feedback to the students. The higher attainment levels include the lower ones. The respective general conditions, learning groups and subject-specific priorities can result in different requirements. They might have to be supplemented by subject-specific and supra-disciplinary requirements.

The students are able to (…)

Specific competency of the learning unit	Subject-related competencies (chapter 4.4.1.2)	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
The students are able to (…)				
(…) research task-related data and technical terms of measures against poverty, malnutrition, infant and maternal mortality.*	1.1–3	(…) research unknown technical terms and take task-related information from a given table – M (X.) 1 – or M (X.) 3.	(…) apply researched technical terms and take specific task-related information from given tables M (X.) 1 and M (X.) 3.	(…) correctly apply technical terms, take purposefully specific task-related information from tables and research data in (English) online sources of the Worldbank.
(…) graphically display data on measures against poverty, malnutrition, infant and maternal mortality* so that they can be interpreted for their tasks.	1.2, **1.3**	(…) correctly display the temporal development of indicators in a scatter diagram.	(…) use a spreadsheet analysis programme to display scatter diagrams on global and regional trends.	(…) produce scatter diagrams on global and regional trends by using a spreadsheet analysis programme, showing all relevant information in a way that they can easily be interpreted.
(…) define the linear trend of indicators for poverty, malnutrition, infant and maternal mortality* and make forecasts for 2015 and 2030.	3.1–2	(…) describe the trend of indicators for the respective goals on the basis of the known data, by using a straight, and thus find prognoses which can be seen in the graph.	(…) define the functional term of the respective trends with the help of the y-axis and a gradient triangle, for reaching prognoses about the goal achievement.	(…) describe the trend of indicators by using the table calculation tool "trend line", and come to conclusions about the achievement of the respective millennium goal by using the determined functional term.

* according to the task focused selected by the students

Specific competency of the learning unit	Subject-related competencies (chapter 4.4.1.2)	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
The students are able to (…)				
(…) interpret the linear trend of indicators on poverty, malnutrition, infant and maternal mortality* and challenge their validity.	3.2, 4.2, 6.3, 8.2	(…) interpret the linear trend (which can be seen in the detected straight), make forecasts (2015, 2030) through trend extrapolation and question their validity.	(…) use the determined functional term for prognoses (2015, 2030) about the development of poverty, malnutrition, infant and maternal mortality*, critically challenge them and estimate their effect on sustainable development.	(…) realise and discuss the approaches (absolute and relative data), assumptions and limitations of the model for the achievement of the goals, and find approaches for personal responsibility regarding sustainable development.
(…) research and compare regional data on measures against poverty, malnutrition, infant and maternal mortality* by using a functional term.	1.3, 3.1, 3.2, 4.1, 7.1, 8.2	(…) research and assess in comparison with the global development the prepared data on the trend of poverty, malnutrition, infant and maternal mortality* for a selected region.	(…) analyse (if needed with help) the researched data on the trend of poverty, malnutrition, infant and maternal mortality* in a selected region of the world by using the determined functional term, and contrast the results with another region.	(…) elaborate reasons for the differences in the trends of development data on poverty, malnutrition, infant and maternal mortality* which they have researched and analysed self-reliantly.
(…) realise and explain interrelations between the researched goals and their framework conditions, and discuss possibilities and limits of mathematical analyses and of their personal involvement in sustainable development.	7.1, 8.2	(…) discuss in their own group and in the phases of joint reflexion about the interrelation between poverty, malnutrition, infant and maternal mortality and about their own options for action.	(…) relate (at least partly) in their own group and in the phases of joint reflexion the exemplary research of the trend of poverty, malnutrition, infant and maternal mortality* to the real situation of these conflicts, and come to a personal position.	(…) realise (at least partly) the complexity and interdependencies of the researched areas of development and the contribution of mathematical tools for their analysis, and comment on the possibilities of sustainable development.

* according to the task focused selected by the students

Course, topics and tasks

The topic *Eradicating extreme poverty, a global development target* is suited for a learning project in Mathematics classes from the 8th form upwards. The following example describes a course structured in four phases:

Introductory phase (2–3 hours): In order to allow the students a real-life access to poverty to become genuinely interested and select their own assignments, the project starts with a video.
Brot für die Welt, e.g., (see link in bibliography, p. 328) offers project videos like *Angola – gemeinsam in eine bessere Zukunft,* which are adequate for this purpose.

An introductory talk is important to help focusing on the complexity of causes for poverty and on the violation of basic human rights. The question: what can be done about it, can be directed towards a shared global responsibility – without triggering purely charitable reactions. The students will then be asked to read the Millennium Development Goals 1, 4 and 5 and select one of them for further studies. In addition they can study the website "No excuse 2015" on the UN-Millenniums-Campaign: www.un-kampagne.de (in German) or www.endpoverty2015.org (in English). Then they form groups of two to four that share the same interest. The teacher should arrange that each goal will be selected at least once. It is favourable for the final reflection if at least two groups work on the same assignment. Then each group will receive their assignments related to "their" Millennium Development Goal – for the first without material. The homework is to collect information about the different definitions of poverty and to work on "their goal", as well as on the mentioned indicators, and to clarify potentially unclear terms (task a). The next lesson should partly be used to discuss the findings and questions that may have resulted from the homework.

Data analysis (3–6 hours): In this central phase the students firstly present the data from material M (X.)1 graphically, before they work on the question how the visible "trend" can be graphically represented by a straight line. As help tools point to the learning environment *Modelling with mathematics* and as it makes sense to work with a spreadsheet analysis, each group should have (at least) one PC with online access at their disposal.

Two remarks:
- In the assignment to b) only the Excel help (OpenOffice works similarly) will be mentioned (due to space constraints). The presentation is also well possible with GeoGebra. The links are: http://www.blikk.it/angebote/modellmathe/ma9475.htm and (…)/ma9476.htm.
- The German teaching programme "Extreme Armut – Hunger lebenslänglich" ("Extreme poverty – life long hunger"): http://www.blikk.it/angebote/modellmathe/documents/Datenanalyse_extreme_Armut.pdf is kept so general that it can also be used for the questions of the sample unit. The teacher can hand out the DIN-A5-format work sheets to the students as (laminated) papers. One copy should be enough for two groups.

This part is not easy for the students because in their lessons most of them will probably only have seen samples with points that are exactly on a straight line. Here for the first time they will be confronted with the problem that, although there is a linear trend, the straight that has to be determined is not clear at the beginning.

While the known data from M(X.)1 already allow an assessment whether or not the goals for 2015 will be achieved, this is not possible for the vision 2030. This does not necessarily require the function term but at least the straight line in order to be able to make a prognosis. This can be done – as the help describes – either manually or digitally. Afterwards the results will be discussed in the group and first preparations made for the presentation phase. Here the teacher should offer some support, if the students have no immediate success when comparing the trend of the absolute data with the percentage trend.

Part d) has a buffer and a differentiating function.
This part is quite demanding because at first the students have to research, process and present the data autonomously, before they will be compared with the results from the first part of this phase. Groups that have spent a long time for the investigation of the data from M1, can skip this part. For all other groups help in stages is offered.
· Groups that cannot handle the research with the complicated structure of the World Bank website can work with material M(X.)2. The teacher will hand out this material on request.
· If this should still not be sufficient, the teacher can give a completed table to the groups. Then the students only need to select a region and compare its data with the global development.

In this, as in the third phase, the students work largely autonomously, cooperatively and on their own responsibility. The teacher offers the organisational setup, stays in the background as a consultant and helps whenever needed. It is advisable to have the students regularly come together in small groups to present the state of their work to the teacher.

Presentation phase (2 hours): The work is focused on one product. It is advisable that the groups design a poster which is first presented in a "museum" entry to their classmates. The design of the poster will take one hour, unless the students do this in the extracurricular time. Walking through the "museum" will take another hour, and many students will realise that the selected topics/questions are strongly interlinked.

Reflection and evaluation phase (2 hours): Finally, they will review and evaluate their work, if possible assisted by an expert, e.g. from an NGO which works for the fight against poverty. At first, they should collect their mathematical findings with regard to the Millennium and Agenda 2030 goals. This should also include a critical view on the regions, if the groups have done any research on that. Here, questions like the follow ing can be discussed:

- Which are the possible causes for our results (achievement/missing of the goals)?
- How reliable are our prognoses?
- Which are the consequences for sustainable development?

Here, the students will also have the chance to discuss the interconnections between the different Millennium Development Goals; they can also present them in a mindmap (see "Horizon of Expectations"). Finally, they should discuss what we can do personally/ privately and in our social environment in order to achieve the goals.

Assignments and material

Task 1: Examine the fight against extreme poverty

At the turn of the millennium, high-level representatives from 189 countries, most of them head of states and governments, met at the United Nations and agreed upon eight Millennium Development Goals (MDGs) to be achieved by 2015. 15 years later 194 countries agreed in the UN headquarters at New York on an even more ambitious Agenda 2030 with 17 Sustainable Development Goals (SDGs).

In this context, you are asked to work on the **Millennium Development Goal (MDG)**:

Fight against extreme poverty

The achievement of the development goal of fighting against extreme poverty is to be measured with the following indicator:

Between 1990 and 2015, the share of people with a daily per-capita-income below 1.90 USD shall be halved.

Agenda 2030

2015 the United Nations agreed on Sustainable Development Goal (SDG) 1: End poverty in all its forms everywhere. One fundamental indicator (among others) for this goal is:

By 2030, extreme poverty is to be abolished, i.e. the share of people with a daily per-capita-income below 1.90 USD shall be close to zero.

Please work on the basis of M 1.1 on the following tasks and **summarise your results in a portfolio**.

Design a poster *which gives an overview of your results and possibly also of important calculations.*

Prepare in your group for the final discussion. *In this discussion, the focus is on connecting your research findings with the real challenges of the fight against poverty and on your own contributions to sustainable development.*

a) Thoroughly discuss "your" goal and its indicator. Clarify, among yourselves or by researching, terms which are not clear for you (e.g. sustainable development). Calculate how much money your family would have at their disposal per month if you were extremely poor.

b) Examine (…)

- the temporal development of the number of poor people between 1990 and 2015
- the temporal development of the percentage of extremely poor people
  and compare. On: http://www.blikk.it/angebote/modellmathe/ma9075.htm you can find help how to make a scatter diagram with a spreadsheet program.

c) Determine a linear function which clearly describes the data for the global development of extreme poverty and estimate whether or not the discussed Sustainable Development Goal 1 of the Agenda 2030 can be achieved if the trend should continue. Help: On the study platform *Modellieren mit Mathe (modelling with mathematics)* (http://www.blikk.it/angebote/modellmathe/ma0030.htm) you can find help under *Extreme Armut – Hunger Lebenslänglich*, Lernparcours B how to clearly present data and how to find a trend line.

d) Groups that are quick are asked to work on the following additional task:
The International Finance Corporation (IFC) has defined different regions of developing countries:
http://www.worldbank.org/en/country/. Select one of these regions and research the respective data in the World Bank database: http://databank.worldbank.org/data/reports.aspx?source=poverty-and-equity-database If you should need additional help, your teacher will give you a research card (M 1.2) or the finished table (M 1.3).
Compare the developments in "your" region with the global developments.
Alternatively you can use the database: http://iresearch.worldbank.org/PovcalNet/povDuplicateWB.htm which takes into account the recent change of the international poverty line from 1.25 to 1.90 USD.

Material Task 1

M 1.1: Extreme poverty (all developing regions)

Period since 1990	1990 0	1993 3	1996 6	1999 9	2002 12	2005 15	2008 18	2010 20
Number of people with less than 1.90 USD (in mill.)	1948.4	1924.6	1721.2	1751.5	1645.1	1357.7	1253,9	1119,8
Percentage of extreme poor population	44.1%	41.4%	35.3%	34.3%	31.0%	24.6%	21.9%	19.1%
Population (in mill.)	4416.2	4648.8	4875.8	5100.3	5313.7	5523.5	5723.4	5877.9

Source: http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx, 27.10.2016

M 1.2: Hints for the research on regions

Please enter the address:
http://databank.worldbank.org/data/reports.aspx?source=poverty-and-equity-database
in your browser. Select under series an appropriate indicator (poverty), under **country** the region and under **time** the period. Confirm your selection by pressing **apply changes**.
Now you can **download** (top right) an Excel document with your data.

M 1.3: Extreme poverty by region (percentage of extreme poverty)

Region Period since 1990	1990 0	1993 3	1996 6	1999 9	2002 12	2005 15	2008 18	2010 20
East Asia	60.56	51.99	39.28	37.45	29.19	18.61	14.96	11.21
Europe and Central Asia	1.89	5.19	6.97	7.81	6.21	5.46	3.10	2.78
Latin America and Caribbean	17.79	14.95	14.11	13.87	13.17	9.90	7.12	6.45
Middle East and North Africa	5.98	6.95	6.10	4.17	–	3.34	2.70	–
Sub-Sahara Africa	56.75	61.06	58.53	57.96	57.05	50.46	47.81	46.11
South Asia	50.60	47.90	42.80	–	40.80	35.00	32.10	27.20

Source: http://databank.worldbank.org/data/reports.aspx?source=poverty-and-equity-database, 27.10.2016

Task 2: Examine the fight against hunger and undernourishment

At the turn of the millennium, high-level representatives from 189 countries, most of them head of states and governments, met at the United Nations and agreed upon eight Millennium Development Goals (MDGs) to be achieved by 2015. 15 years later 194 countries agreed in the UN headquarters at New York on an even more ambitious Agenda 2030 with 17 Sustainable Development Goals (SDGs).

In this context, you are asked to work on the **Millennium Development Goal (MDG)**:

Fight against hunger

The achievement of the development goal regarding hunger and undernourishment is to be measured with the following indicator:

From 1990 to 2015, the share of people suffering from hunger shall be halved, i.e. the percentage of undernourished people against the total population.

Agenda 2030

2015 the United Nations agreed on Sustainable Development Goal (SDG) 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture One fundamental indicator (among others) for this goal is:

By 2030, hunger is to be abolished, i.e. the share of undernourished people against the total population shall be close to zero.

Please work on the basis of M 2.1 on the following tasks and **summarise your results in a portfolio**.
Design a poster *which gives an overview of your results and possibly also of important calculations.*
Prepare in your group for the final discussion. *In this discussion the focus is on connecting your research findings with the real challenges of the fight against hunger and on your own inputs to sustainable development.*

a) Thoroughly discuss "your" goal and its indicator. Clarify, among yourselves or by researching, terms which are not clear for you (e.g. undernourishment).
b) Examine (…)
- the temporal development of the number of undernourished people between 1990 and 2015
- the temporal development of the percentage of undernourished people
  and compare. On: http://www.blikk.it/angebote/modellmathe/ma9075.htm you can find help how to make a scatter diagram with a spreadsheet program.
c) Determine a linear function which clearly describes the data for the global development of the percentage of undernourished people and estimate whether or not the Agenda 2030 goal can be achieved if the trend should continue. Help: On the (German) study platform *Modellieren mit Mathe* (modelling with mathematics) (http://www.blikk.it/angebote/modellmathe/ma0030.htm) you can find help under *"Extreme Armut – Hunger lebenslänglich*, Lernparcours B" how to clearly present data and how to calculate a trend line.

d) Groups that are quick are asked to work on the following additional task:
The International Finance Corporation (IFC) has defined different regions of developing countries: http://www.worldbank.org/en/country/. Select one of these regions and research the respective data in the World Bank database "Health Nutrition and Population Statistics":
http://databank.worldbank.org/data/views/variableselection/selectvariables. aspx?source=health-nutrition-and-population-statistics. If you should need additional help, your teacher will give you a research card (M 2.2) or the finished table (M 2.3). Compare the developments in "your" region with the global developments.

Material Task 2

M 2.1: Undernourishment in developing countries worldwide

Year since 1990	1991 1	1992 2	1993 3	1994 4	1995 5	1996 6	1997 7	1998 8	1999 9	2000 10	2001 11
Number (mill.)	890.8	902.5	901.6	918.3	874.4	843.3	837.2	823.4	821.1	827.6	845.7
Share (%)	22.88	22.77	22.11	21.85	20.48	19.40	18.95	18.34	18.06	18.00	18.10
Year since 1990	2002 12	2003 13	2004 14	2005 15	2006 16	2007 17	2008 18	2009 19	2010 20	2011 21	2012 22
Number (mill.)	837,8	836,6	829,7	825,5	803,4	785,9	776,4	766,8	756,4	737,7	728,4
Share (%)	17,72	17,42	17,01	16,74	16,11	15,58	15,23	14,90	14,55	14,10	13,78

M 2.2: Hints for the research on regions

Enter the address in your browser: Select under **series** an appropriate indicator (number of people who are undernourished, prevalence undernourishment), under **country** the chosen region, and under **time** the period. Now you can **download** (top right) an Excel table with your data.

M 2.3: Undernourishment in regions

Year Period since 1990	1991 1	1994 4	1997 7	2000 10	2003 13	2006 16	2009 19	2012 22
East Asia (mill.)	399.2	334	296.7	290	278.1	262.1	235.5	220
Share (%)	24.7	19.9	17.1	16.2	15.2	14.0	12.3	11.3
Latin America (mill.)	59.9	59.8	59.3	56.7	55.6	52.5	45.2	43.3
Share (%)	15.4	14.6	13.9	12.9	12.2	11.3	9.9	9.3
Middle East (mill.)	9.2	12.3	15.2	15.8	19.5	20.7	22.4	19.1
Share (%)	7.1	8.2	8.8	8.7	8.6	9.1	9.2	9.1
Sub-Sahara (mill.)	114.2	157.6	160.9	162.7	166.6	160.4	162.1	160.8
Share (%)	29.0	32.6	30.3	28.8	27.3	24.6	23.1	21.5
South Asia (mill.)	305.9	347.6	296.2	290.9	309.1	300.4	294.7	279.4
Share (%)	26.6	28.4	22.8	21.2	21.5	19.8	18.7	17.0

Source: http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics, 27. 10. 2016

Task 3: Examine the reduction of infant mortality

At the turn of the millennium, high-level representatives from 189 countries, most of them head of states and governments, met at the United Nations and agreed upon eight Millennium Development Goals (MDGs) to be achieved by 2015. 15 years later 194 countries agreed in the UN headquarters at New York on an even more ambitious Agenda 2030 with 17 Sustainable Development Goals (SDGs).

In this context, you are asked to work on the **Millennium Development Goal (MDG)**:

Reduction of infant mortality
The achievement of the development goal regarding infant mortality is to be measured with the following indicator:

From 1990 to 2015, the rate of infant mortality, i.e. for children below the age of five, shall be reduced by two thirds.

Agenda 2030
2015 the United Nations agreed on Sustainable Development Goal (SDG) 3: Ensure healthy lives and promote well-being for all at all ages

One fundamental indicator (among others) for this goal is:
Until the year 2030 there shall be no more avoidable deaths of children below the age of 5, i.e. the under-5 mortality rate (deaths per 1,000 live births) shall be close to zero.

Please work on the basis of M 3.1 on the following tasks and **summarise your results in a portfolio**.
Design a poster *which gives an overview of your results and possibly also of important calculations.*
Prepare in your group for the final discussion. *In this discussion the focus is on connecting your research findings with the real challenges of the fight against infant mortality and on your own inputs to sustainable development.*

a) Thoroughly discuss "your" goal and its indicator. Clarify, among yourselves or by researching, terms which are not clear for you (e.g. sustainable development and infant mortality rate).
b) Examine (…)
- the temporal development of the number of deaths of children below the age of five, from 1990 to 2015
- the temporal development of the percentage of deaths of children below the age of five – and compare.
c) Determine a linear function which clearly describes the data for the global development of infant mortality of children below the age of 5, and estimate whether or not the discussed Agenda 2030 goal can be achieved if the trend should continue. Help: On the study platform *Modellieren mit Mathe* (modelling with mathematics) (http://www.blikk.it/angebote/modellmathe/ma0030.htm) you can find help under *Extreme Armut – Hunger Lebenslänglich*, Lernparcours B, how to clearly present data and how to calculate a trend line.

d) Groups that are quick are asked to work on the following additional task:
   The International Finance Corporation (IFC) has defined different regions of developing countries: http://www.worldbank.org/en/country. Select one of these regions and research the respective data in the World Bank database "World Development Indicators": http://databank.worldbank.org/data/views/variableselection/selectvariables. aspx?source=world-development-indicators. If you should need additional help, your teacher will give you a research card (M 3.2) or the finished table (M 3.3). Compare the developments in "your" region with the global developments.

Material Task 3

M 3.1: Infant mortality worldwide of children under 5

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1990	2000	2001
since 1990	0	1	2	3	4	5	6	7	8	9	10	11
Rate (per 1000 births)	90.2	88.9	87.9	87	86.1	84.9	83.7	82.1	80.3	78.1	75.8	73.3
Number (mill.)	12.67	12.39	12.03	11.62	11.25	10.91	10.62	10.40	10.21	9.99	9.75	9.47
Year	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
since 1990	12	13	14	15	16	17	18	19	20	21	22	23
Rate (per 1000 births)	70.7	68	65.3	62.7	60.1	57.7	55.3	53.1	51.2	49.1	47.2	45.6
Number (mill.)	9.17	8.85	8.53	8.22	7.93	7.66	7.40	7.14	6.93	6.68	6.47	6.29

M 3.2: Hints for the research on infant mortality among children below the age of 5 in regions

Enter the following address in your browser:
http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source= world-development-indicators
Select under **series** an appropriate indicator (mortality rate under-five, number of under-five deaths), under **country** the chosen region, and under **time** the period.
Now you can **download** (top right) an Excel table with your data.

M 3.3: Mortality of children under 5 by regions

Infant mortality per 1000 live-births (children under age of 5) (in the developing countries)

Region	1990	1993	1996	1999	2002	2005	2008	2011	2013
East Asia & Pacific	59	55.3	50.6	44.2	36.9	30.4	25.5	21.8	19.5
Europe & Central Asia	55.7	54.4	51.6	44.6	38.1	33.1	28.6	25	23
Latin America & Caribbean	55.1	48.1	41.3	34.8	29.4	25.3	22.3	19.8	18.2
Middle East & North Africa	67.4	60.3	53.8	47.1	40.9	35.5	30.5	27	25.5
Sub-Saharan Africa	179	174.8	168.9	160.1	146.1	129.2	113.1	99.2	92.2
South Asia	129.4	118.6	108.1	97.5	87.1	77.4	69.3	61.6	56.6

Source: http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators, 27. 10. 2016

Task 4: Examine the reduction of maternal mortality

At the turn of the millennium, high-level representatives from 189 countries, most of them head of states and governments, met at the United Nations and agreed upon eight Millennium Development Goals (MDGs) to be achieved by 2015. 15 years later 194 countries agreed in the UN headquarters at New York on an even more ambitious Agenda 2030 with 17 Sustainable Development Goals (SDGs).

In this context, you are asked to work on the **Millennium Development Goal (MDG)**:

Reduction of maternal mortality

The achievement of the development goal regarding maternal mortality is to be measured with the following indicator:

From 1990 to 2015, the rate of maternal mortality shall be reduced by three quarters.

Agenda 2030

2015 the United Nations agreed on Sustainable Development Goal (SDG) 3: Ensure healthy lives and promote well-being for all at all ages.

One fundamental indicator (among others) for this goal is:
By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

Please work on the basis of M 4.1 on the following tasks and **summarise your results in a portfolio.**
Design a poster *which gives an overview of your results and possibly also of important calculations.*
Prepare in your group for the final discussion. *In this discussion the focus is on connecting your research findings with the real challenges of the reduction of maternal mortality and on your own inputs to sustainable development.*

a) Thoroughly discuss "your" goal and its indicator. Clarify, among yourselves or by researching, terms which are unclear for you (e.g. sustainable development and rate of maternal mortality).
b) Examine (…)
- the temporal development of the number of mothers who died during the birth process, from 1990 to 2015
- the temporal development of the rate of maternal mortality in the same period, and compare.
c) Determine a linear function which clearly describes the data for the global development of maternal mortality and estimate whether or not the Agenda 2030 goal can be achieved if the trend should continue. Help: On the platform *Modellieren mit Mathe* (http://www.blikk.it/angebote/modellmathe/ma0030.htm) you can find help under *Extreme Armut – Hunger lebenslänglich*, Lernparcours B, how to clearly present data and how to make a trend line.

d) Groups that are quick are asked to work on the following additional task:

The International Finance Corporation (IFC) has defined different regions of developing countries: http://www.worldbank.org/en/country. Select one of these regions and re-search the respective data in the World Bank database "World Development Indicators": http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators. If you should need additional help, your teacher will give you a research card (M 4.2) or the finished table (M 4.3). Compare the developments in "your" region with the global developments.

Material Task 4

M 4.1: Global development of maternal mortality

Year	1990	1995	2000	2005	2010
Number of years since 1990	0	5	10	15	20
Deaths per 100,000 live births	380	360	330	270	230
Number of dead mothers	523,000	478,000	427,000	361,000	310,000

Source: http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators, 27.10.2016

M 4.2: Hints for the research on maternal mortality by region

Enter the following address in your browser:
http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators
Select under **series** an appropriate indicator (maternal mortality ratio, number of maternal deaths), under **country** the region and under **time** the period.
Now you can **download** (top right) an Excel table with your data.

M 4.3: Maternal mortality per 100,000 live births by region
(only developing countries)

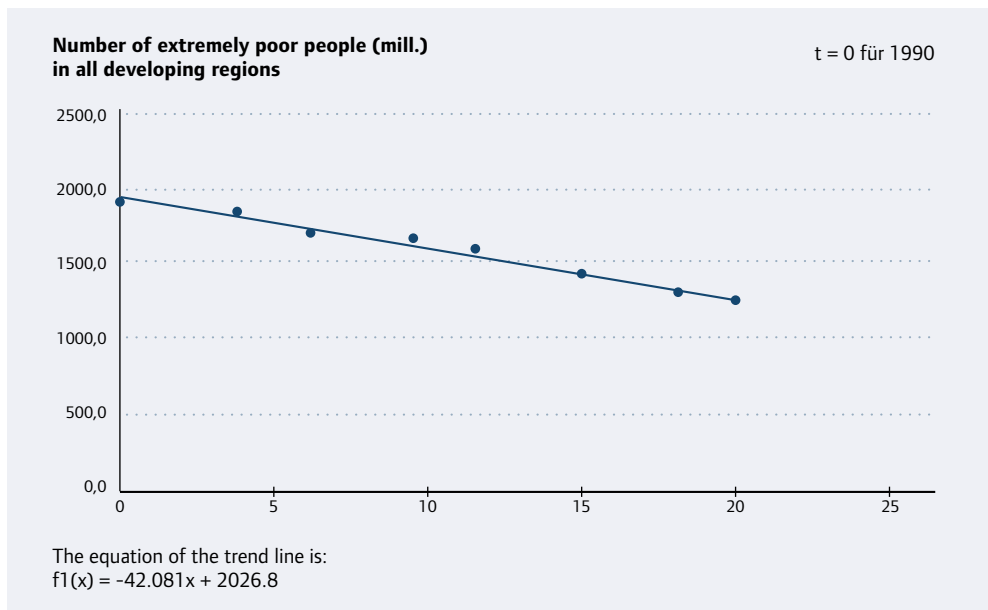| Region	1990 (0)	1995 (5)	2000 (10)	2005 (15)	2010 (20)
East Asia & Pacific	170	150	130	110	82
Europe & Central Asia	61	54	44	35	31
Latin America & Caribbean	150	130	110	95	90
Middle East & North Africa	160	130	110	97	83
South Asia	550	460	370	280	220
Sub-Saharan Africa	990	930	830	680	560

Source: http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators, 27.10.2016
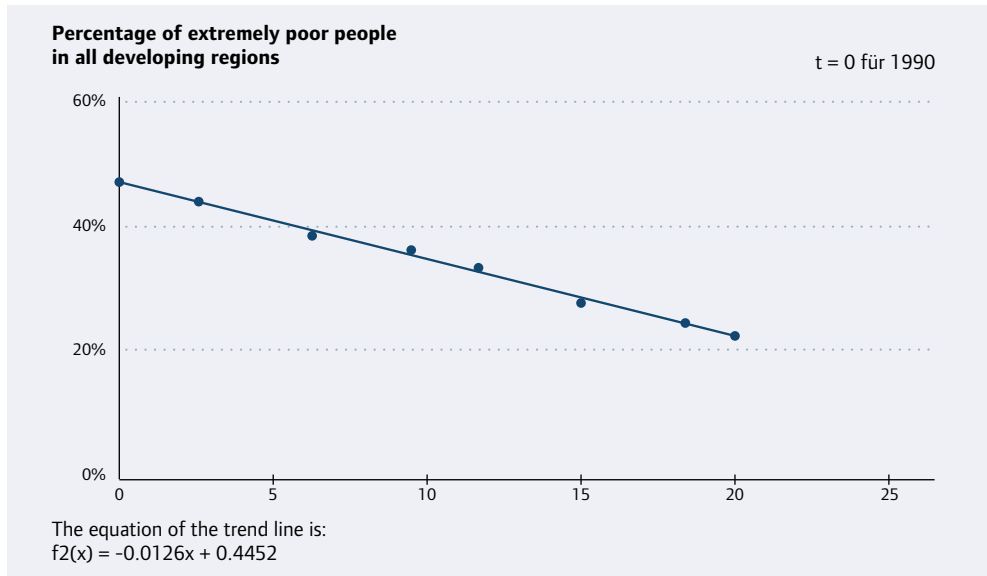
Horizon of expectations

Task 1[146]

Attainment level 1:
a) "Millennium", "indicator" or "per-capita-income" could be unknown terms which the students are expected to clarify. To imagine the situation of extreme poverty students were asked to find out how much money (USD) their family would have, if they were "extremely" poor, i.e. below the international poverty line of 1.90 USD. For a three-member-household this is 5.7 USD per day and 171 USD per month. With an internet currency converter they can easily find out what this means in Euro.
b) The students enter the numbers in mill. and the percentages for the period since 1990 in two scatter diagrams on millimetre paper or they try to apply a spreadsheet program for producing the diagrams. They should not connect the points but instead draw a straight line by eye to show the course of the point cloud.

Number of extremely poor people (mill.) in all developing regions

t = 0 für 1990

The equation of the trend line is:
$f1(x) = -42.081x + 2026.8$

The diagram needs to get a meaningful axis scale and -legend as well as a headline.

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[146] For the three other tasks, the horizon of expectations can be found on www.globaleslernen.de (in German)

**Percentage of extremely poor people
in all developing regions**

t = 0 für 1990

The equation of the trend line is:
f2(x) = –0.0126x + 0.4452

c) The trend until 2015 can be seen from the already known data. The (expected) target
for 2015 can be seen in the diagram at t = 25 by extending the straight line, or it can
be defined by research of new data: at about 846 mill. people or a share of 14 %. The
defined goal (halving of the original percentage of 44.1 %) was reached in 2008
already, while the absolute number will be halved perhaps in 2015.
On this level of attainment, the students don't need to calculate the term of the linear
function. The development by 2030 can be seen at t = 40 by extending the straight line
in the diagram. This means that the diagram might have to be expanded by attaching
another sheet to the right. If the trend should go on, the number of extremely poor
could be zero at t = 35.5 (in the middle of 2026).

**Percentage of extremely poor people
in all developing regions**

t = 0 für 1990
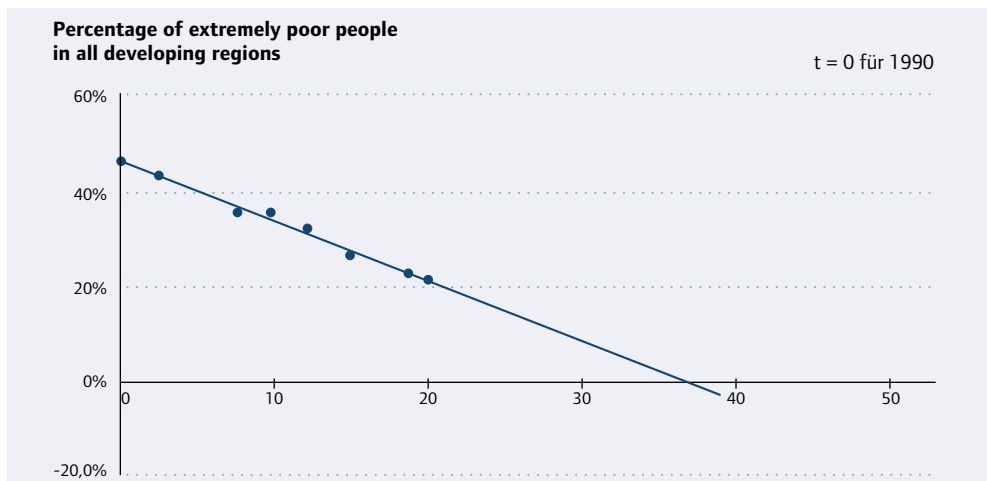
d) On attainment level 1 work on this part of the task is not expected (or only with the
help of M (X.)3).

Attainment level 2:
a) Same as attainment level 1 but more accuracy in the correct use of terms is expected.
b) The students should be able to generate their results by using a spreadsheet program and find the cause for the different reduction of the number and share of extremely poor people. From 1990 to 2010, the number of people living in developing countries has risen from about 4.4 Billion to 5.8 Billion. Hence, the percentage is based on a successively higher number of people. This means that the drop of the absolute numbers is slower than that of the percentages.
c) The students should draw the trend line in the diagram – which they had generated with a spreadsheet programme – by eye and determine the function term with the y-axis and a gradient triangle and its zero point. Of cause it is also possible to use the black box *trend line*, if they work with the tools from *Modellieren mit Mathe*.
d) The students should make at least one attempt by using M(X.)2. If they fail, they can use M(X.)3. Depending on the chosen region, they should compare the trend line gradients or the forecasts until 2030 and show that the respective regional developments (totally) differ from the global development: East Asia was most successful $(f3(x) = -2.4579\,x + 58.407)$, while the goal to reduce the original share of 60 % by half will surely be missed in Subsahara Africa $(f4(x) = -0.6718\,x + 61.436)$. South Asia $(f5(x) = -1.0824\,x + 50.929)$ will probably also fail by end-2015. The other three regions show clearly lower rates of poverty. Latin America will probably also fail to reach the 50 percent goal, but nevertheless, after the Millennium Declaration there was a clear reduction in the percentage of poverty. Possible reasons for the unsatisfactory development in Subsahara Africa: instable political situation (e.g. civil wars), inequitable conditions (e.g. unjust enrichment of elites, exploitation by transnational companies), structural conditions on the world markets, or repeated "natural" desasters like droughts.


Percentage of extremely poor people by region

t = 0 für 1990

East Asia
Europe
Latin America
North Africa
Subsahara
South Asien
Linear (East Asia)
Linear (Subsahara)
Linear (South Asien)
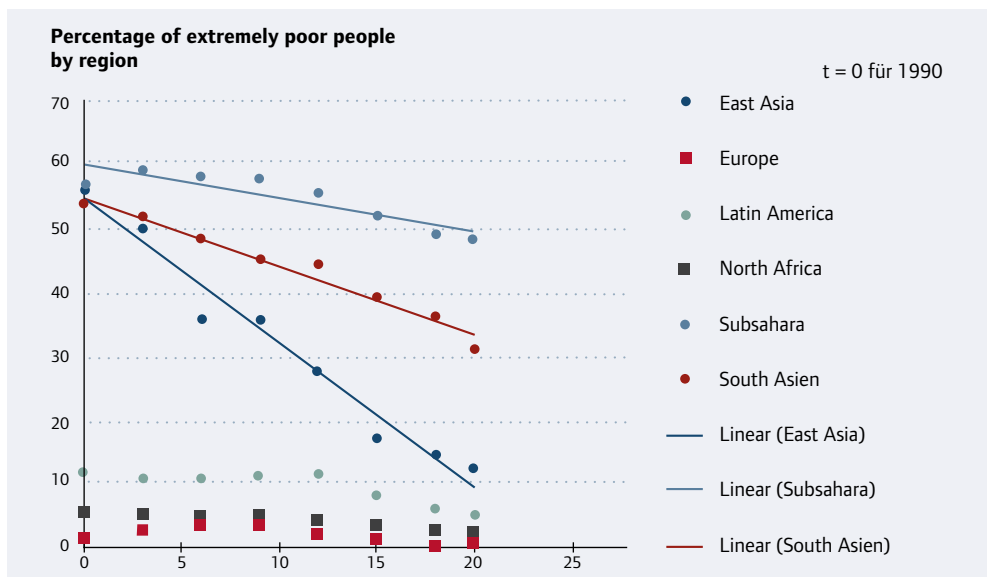
Attainment level 3:
a) – c): Same as attainment level 2

d) The groups are able (if necessary by using M (X.)2) to self-reliantly research and present the data for their selected region and to compare the development of this region with the global trend. They are able to use a spreadsheet program to this end (trend line with functional equation). For a first understanding of the regression they can use the dynamic approach with GeoGebra which is also explained in the tool *Modellieren mit Mathe*. The students are expected to question the validity of their prognoses more deeply than on attainment levels 1 and 2; they should also be able to relate them to the complex reality and to design their own options for sustainable action.

Validity of the prognoses:
- In general, the prognoses are based on linear changes of the chosen indicators. As soon as negative rates of poverty are determined (after 2026), this model cannot be used any more. The linear model will probably have to be left at an earlier stage because, close to the zero line poverty rates will drop slower.
- The trend lines take the development after 1990 into account. But it becomes obvious that the development of the poverty rates has changed with the Millennium Development Goals. So the rates in Subsahara Africa and also in South Asia have dropped faster with the MDGs, whereas in East Asia the decline has been less pronounced since 2012.
- In general, a long period forecast (15 years until 2030) is subject to considerable uncertainties.
- Such mathematical prognoses are based on the trend projection of existing data, although their reliability can hardly be determined, and unforeseen developments (like the rise in food prices caused by the financial crisis of 2008) and feedback effects remain unconsidered.
- Personal options:
- Change of lifestyle (e.g. eat less meat)
- Purchase of fair trade products
- Political involvement (e.g. in development NGOs)

© A. Warmeling (2015): Orientierungsrahmen Globale Entwicklung
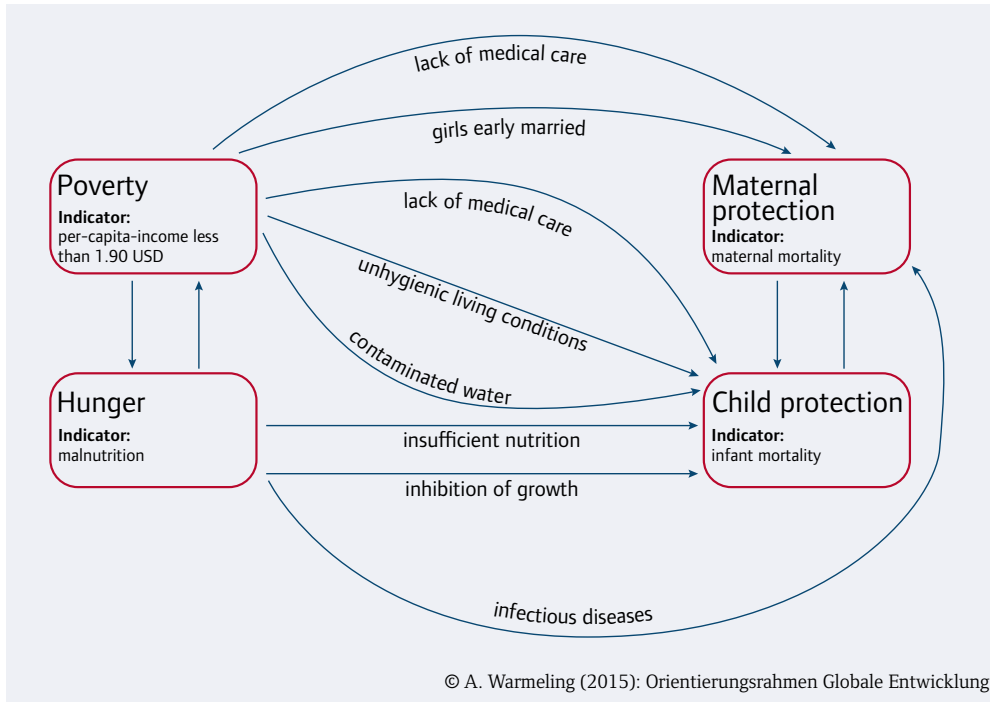
Fig. 11: Potential relationship between the studied development goals

4.4.1.6 Performance monitoring and learning-progress interviews

The continuous observation of the students' learning process on the background of the desired specific competencies and the dialogue with them are the foundation for the assessment of the students' performance. This particularly applies to group phases when the individual student should be interviewed regarding the desired competencies. However, the students should not get the impression that this project is primarily meant to assess their performance. The students should rather be empowered to realistically evaluate their own performance with respect to the aspired targets, to realise learning needs and to take over their learning process self-reliantly.

The dialogue with the pupils gives the teachers important hints about the effectivity of the learning process, which enable them to design the next steps in a way that an individual support becomes possible.

The group phases and the following presentation and discussion of the results in the class offer sufficient possibilities and reference points for the performance assessment. They have to be attuned to the principles and criteria of the subject and to the students' state of development.

Apart from the subject-related competencies of Mathematics Education and the core competencies of Global Development Education/ESD (which have been selected for the specific project), it is also about supra-disciplinary competencies, like the ability to cooperate and an increased ability to reflect.

The assessment criteria are based on the subject-related and supra-disciplinary targets and requirements, but most of all on the levels of the respective competency grid designed for the learning unit. Here not only the absolute level of the attained requirement is relevant but also the individual learning progress.

4.4.1.7   Bibliography and sources

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zur Abfrage: Welches Land gehört zu welcher Region: http://data.worldbank.org/country
oder http://www.worldbank.org/en/country

4.4.2 Natural Science Education (Biology, Chemistry, Physics)

Burkhard Schroeter, Sascha Bernholt, Hendrik Härtig, Udo Klinger, Ilka Parchmann[147]

4.4.2.1 Contribution of the natural science subjects Biology, Chemistry and Physics to Global Development Education/ESD

The education in natural sciences offers many possibilities to link the acquisition of subject-related knowledge to the dimensions of global development (environment, economy, Social Affairs and politics) and to strengthen respective competencies. As the three natural science subjects Biology, Chemistry and Physics have much in common but still differ in their contents, Global Development Education/ESD will be displayed specifically for each of the three subjects, but also in a cross-curricular and subject-linking way. This enables the flexible implementation in the different school and subject structures of the federal states.

In particular, the accessibility to the present subject curricula is emphasised with regard to:
- the basic concepts and competencies of the common educational standards (KMK 2005a–c)
- the new curricula that have been elaborated on this framework
- the current contexts[148] of natural science education (OECD 2000, see Wodzinski 2013)
- the discourse on environmental education and Education for Sustainable Development within biological education
- and to existing learning units in the context of global development.

The **contents of Biology** are structured in the educational standards of the federal states according to the three basic concepts *system, structure/function* and *development* (see KMK 2005a). All three subject-specific concepts offer possibilities to address the influence that human beings can take on their own living conditions and on their environment. The basic concept *system* e.g., points to the fact that living systems are connected with the economic and social systems. For the basic system *development* the standards state: "Human beings directly or indirectly change the living systems" (KMK 2005a, p. 9). In particular the study of ecosystems should include global aspects and dimensions of sustainable development in the learning process. But also the educational contents that relate to the human being (food, health, reproduction, development) are not only to be addressed with regard to the living conditions in industrial countries but also within the context of the developing and threshold countries and in overall global contexts (see Menzel; Bögeholz 2005).

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[147] This contribution has been developed on the basis of "Naturwissenschaftlicher Unterricht am Beispiel der Biologie" by Mayer, Gropengießer, Harms (2007) in the first edition of the Curriculum Framework for Global Development Education/ESD (2007). Parts of the original text have been taken unchanged or changed, in agreement with the authors

[148] Here, *context* refers to a part of every-day life, the lifeworld, technics or history – a part which is significant for the students as well as for the respective science and which can be appropriately addressed at school with the available means

In the KMK educational standards, the contents of Chemistry are structured by the four basic concepts *chemical reaction, substance-particles relationships, structure-properties relationships* and *energy*. Based on these four basic concepts, the human relationship with the material world is addressed in different contexts with a view on society, economy and environment. "At the same time, the students' awareness for the sustainable use of resources is raised. This includes the responsible use of chemicals and appliances in the household, in laboratories and the environment as well as safety-conscious experiments" (see KMK 2005b, p. 6). These aspects should also be included in the discussion of topics that are relevant for the society, e.g. about food, renewable energies or the use of natural resources. The students should be enabled to "check arguments with regard to their factual and ideological content and to decide appropriately, autonomously and responsibly" (see KMK 2005b, p.10).

In the educational standards, the contents of Physics are structured by competency areas and basic concepts. The concepts *energy, matter, system* and *interaction* primarily relate to the competency area *subject-related knowledge* (see KMK 2005c). The concepts allow to study problems of global development from a specifically physical perspective, for example: "Stable conditions are systems in balance." "Disturbed balances can create currents and waves." "Usable energy can be generated from exhaustible or renewable sources." "In the transport of energy only part of the energy can be held." (see KMK 2005c, p. 9). These concepts are applicable to climate change, ocean currents or aspects of energy supply. The competency areas also offer possibilities when students want to use their knowledge to solve problems (F 3)[149], to attribute phenomena to their physical contexts (E 1), to research in different sources (K 3) or to use their knowledge of physics to assess the risks of modern technolgies (B 3).

For a cross-curricular or subject-linking Natural Science Education the basic concepts which are described in the educational standards for the respective disciplines need be integrated into a common subject-related basis. For this purpose, the framework curricula of natural sciences in Rhineland-Palatinate e.g., have combined the eleven basic concepts of the subjects Biology, Chemistry and Physics to seven common concepts: *System, Structure-Properties-Function, Substance-Particles-Matter, Chemical Reaction, Interaction, Energy Concept and Development*. They show the internal structures of the subjects and provide orientation for the design of learning units in thematic fields that relate to Global Development Education/ESD. Comparable to the disciplinary topics, e.g. in biology, the crucial difference is the direct cooperation of the subjects. This holistic view corresponds to the objectives of Global Development Education/ESD. (see MBWJK Rheinland-Pfalz 2010)

[149] For the meaning of the acronyms, see KMK 2005 a,b, c and chapter 4.4.2.2

4.4.2.2   Subject-related competencies

In Global Development Education/ESD it is possible to acquire subject-related and interdisciplinary competencies. This objective can be attained in Natural Science Education, either by coordinating or by integrating the subjects Biology, Chemistry and Physics in project phases or – repective curricula given – in one subject Natural Sciences. The relevant subject-specific competencies which can be acquired in Global Development Education/ESD are presented according to the disciplinary approach of the natural science subjects in the KMK standards, because these standards exist only separately for each of the three subjects.

The thee competency areas *Recognising*, *Assessing* and *Acting* of the Curriculum Framework are targeted at a holistic understanding of competency which links to the practical experience and implementabilities in the respective school subjects by defining eleven core competencies and respective subject-related competencies. The targeted acquisition and processing of information are in the focus of the competency area *Recognising*. In the field of the natural science subjects the use of global communication means (media, internet) and specific models of forecasting and describing (e.g. the IPCC climate models) are integral parts of this competency area. The topics of Global Development Education/ESD require a systemic perspective with regard to global environmental problems or alternative approaches of energy supply, a perspective which in itself requires analytical competencies in order to be able to select and combine the relevant information. The contents of the natural science subjects offer orientation knowledge which needs to be linked with personal and societal perspectives in an interdisciplinary way.

The competency area *Assessing* also exists in the educational standards for the three natural science subjects (Höttecke 2013). In both systematics it is about the competency to critically reflect, to change perspective and to realise and take into account guiding norms, values, interests, attitudes and emotions. The critical and reflective discourse with groups of the society or the reflection on the own activities is especially relevant for the human role in ecological conflicts (e.g. between exploitation and preservation of bio-diversity) or social dilemmas (e.g. pro and contra preimplantation diagnosis). Parts of the competency area *Assessing* are on learning to change one's perspective and to reflect critically as well as the acquisition of rational strategies for decision (see Höttecke 2013).

The learner's active role is addressed in the competency area *Acting*. Study assignments in the natural science subjects are targeted at the students' creativity and readiness to innovate, e.g. with regard to a more sustainable use of natural resources for energy supply. Here also it is important to take different perspectives into account, but more so with regard to the generation of options for action and the connected impact assessment. This can happen simultaneously with the initiation and implementation of projects, e.g. the insulation analysis of the school building and recommendations for improvement.

The exemplary presentation of the close relations between the competency areas of the Curriculum Framework and the contents of the natural science subjects underlines their relevance. By their orientation at the principles of Global Development Education/ESD – *Fundamental principle of sustainable development, Analysis of development on different levels of action, Appreciation of diversity, Ability to change perspective, Context and lifeword orientation* – the natural science subjects substantially contribute to the acquisition of interdisciplinary competencies for sustainable development. Interdisciplinary and subject-linking education has to meet the challenge to link subject-related competencies and topics with the 11 core competencies of the Curriculum Framework by context oriented assignments and adequate learning situations. The interdependences and target conflicts between the four dimensions of sustainable development on the different levels of activity are relevant for the competencies and topics of all three subjects.

Subject-related competencies in Natural Science Education for the Secondary School Certificate (Level I) linked to the core competencies for Global Development Education/ESD

The following overview specifies the core competencies of Global Development Education/ ESD against the background of the natural science subjects. By using the definitions of the educational standards and the definitions of the first edition of the Curriculum Framework (Mayer et al., 2007), as well as amendments, the specification of the competency areas *Recognising, Assessing* and *Acting* with subject-specific competencies establishes a relation to the KMK educational standards. The relations to the educational standards of Secondary School Certificate (KMK 2005 a, b ,c) are marked for the respective subject with an acronym (example: "chemistry E8" is used for standard 8 in the competency area "energy generation": "The students give examples for links between developments in society and scientific findings in Chemistry").

The Students are able to (…)

	Core competencies	Subject-related competencies
Recognising	**1. Acquisition and processing of information** (…) acquire information on issues of globalisation and development and process it topic-relatedly.	1.1 (…) use the possibilities of global communication (media, internet) to access subject-related topics in the global context. **(Biology K4, K7/Chemistry K1, K2/Physics K3)**
		1.2 (…) understand that global environmental problems are problems on large space-time-scales. **(Biology K4)**
		1.3 (…) process information from forecasts, models and future scenarios. **(Biology K4, K6/Chemistry E7)**
		1.4 (…) compile relevant facts about the affected ecological, economic and social systems and find causal relations. **(Biology K7/Physics E2, B2)**
	2. Recognising diversity (…) recognise the socio-cultural and natural diversity in the One world.	2.1 (…) recognise the biological and material diversity and its interaction on the atomic, genetic, organismic and ecological levels. **(Biology F2.5/Chemistry F1.5)**
		2.2 (…) recognise the ecological, economic and cultural dimensions of biological and material diversity.
		2.3 (…) recognise the reduction of natural diversity and the connected risks.
		2.4 (…) recognise the natural diversity of the species Homo Sapiens and the diversity of socio-cultural forms of life.
	3. Analysis of global change (…) analyse processes of globalization and development by using the concept of sustainable development.	3.1 (…) discuss human interventions in nature and criteria for the respective decisions. **(Biology F3.8/Chemistry B5/Physics B3)**
		3.2 (…) relate the dimensions economy/Social Affairs/politics to the environment and recognise interconnections. **(Biology K8/Physics B4)**
		3.3 (…) understand the fundamental criteria of sustainable development. **(Biology F1.8)**
		3.4 (…) compare problems of sustainable development and of development policy, from the perspective of differrent countries.
		3.5 (…) give examples for links between developments in society and findings in natural sciences. **(Chemistry E8/Physics B2)**
	4. Differentiation between levels of action (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	4.1 (…) analyse challenges of development politics from a natural science perspective, on different levels **(individual, society)**.
		4.2 (…) realise economic, technical, social and ecological options for a sustainable management of nature on different levels of decision. **(Biology B7/Chemistry B3/Physics B2)**
		4.3 (…) use examples of the consumption of natural resources and energy – in fields like food, medicine/cosmetics, clothing, energy – to describe the behaviour of producers, service suppliers and consumers.

	Core competencies	Subject-related competencies
Assessing	**5. Change of perspectives and empathy** (…) realise, appreciate, and reflect upon own and others' values, and their significance for life.	5.1 (…) describe the significance of biological diversity for a sustainable way of life, in view of different preconditions.
		5.2 (…) reflect on cultural diversity and value-oriented behaviour, e. g. with respect to division of labour, food and the relationship to nature.
		5.3 (…) describe and assess the behavior of human beings as designers, destroyers and regenerators of eco-systems. **(Biology F3.8, B5)**
		5.4 (…) adopt and reflect on the perspectives of groups participating in ecological and social conflicts.
		5.5 (…) discuss and evaluate statements relevant for development from different perspectives. **(Chemistry B5)**
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orientating at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) differentiate between descriptive or explanatory (natural science) and normative (ethics) statements. **(Biology B1/Physics E2)**
		6.2 (…) evaluate different measures and behaviours for the protection of health. **(Biology B2)**
		6.3 (…) realise that racial classifications for human beings are unfounded from a biological point of view and comment on racism against the background of universal human rights.
		6.4 (…) assess examples from the media for events and methods relevant for development, taking into account values negotiable in society. **(Biology B3/Chemistry K8)**
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), with respect to diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) describe and evaluate the effects of human interventions in an ecosystem. **(Biology B5/Physics B2)**
		7.2 (…) assess examples of environmentally and socially compatible ways of using ecosystems. **(Biology B7)**
		7.3 (…) assess, from the perspective of sustainable development, the influence of concrete development projects or political decisions on global cycles and material flows. **(Biology B6)**
		7.4 (…) assess the sustainability of different options for concrete development projects, taking into account the general conditions and legitimate interests.

	Core competencies	Subject-related competencies
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	**8.1** (…) develop and justify the own personal options for an ecologically compatible way of life in line with the principle of sustainable development. **(Biology B7)** **8.2** (…) realise, reflect on and express their own responsibility for processes of global change.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	**9.1** (…) appropriately take into account the links between population, living standard and resource consumption (raw material, energy, food, space) in the discussion of conflicts. **(Chemistry K9/Physics F4)** **9.2** (…) openly and respectfully engage in development dialogues about the fight against poverty.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	**10.1** (…) elaborate activity options for complex issues of sustainable development by means of appropriate tools (e.g. life cycle and environmental impact assessment) **(Biology B7)** **10.2** (…) research the long-term consequences, with the help of modelling, forecasts and scenarios. **(Biology E12/Chemistry E7/Physics E3)** **10.3** (…) understand the correlation between infectious diseases and population density, mobility, long-distance tourism and hygiene, and act accordingly. **10.4** (…) develop solution strategies for target conflicts on the path to sustainable development and probe chances for their implementation. **(Biology B7/Chemistry B6)**
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields and to participate in their implementation in society and politics.	**11.1** (…) research individual and societal options in different fields of action (consumption, leisure time, media), taking into account chances and risks, and compare them against the background of natural science knowledge. **(Physics B2, B3)** **11.2** (…) discuss the limits of purely physical, chemical or biological perspectives and activity options, and draw conclusions for their own behaviour. **(Biology E8/Chemistry B4/Physics B1)**

4.4.2.3   Sample topics

Competencies can only be acquired in situations. Accordingly, for their acquisition a thematic framework of action is needed within which subject-related topics and competencies are becoming by multiple methods the content of the learning process. The purposeful use of contexts (see Wodzinski, 2013) offers chances to acquire the subject-related or cross-curricular competencies of Global Development Education/ESD. Such contexts include individual, social or technical aspects of application which are meaningful and relevant for the students (OECD 2000). By using contexts, the subject contents are connected to topics which are relevant for the students and society. The criteria of relevance is needed because a selection of contexts can never be complete and always needs updating due to changes in society.

The following overview gives practical examples to facilitate the implementation of the Curriculum Framework. It is supplemented by a list of published learning units and by an overview of easily accessible online material (see www.globaleslernen.de). The sample topics don't claim to set content priorities or to fully represent a thematic field. They are well proven or obvious to support the development of ESD competencies in subject-specific as well as in interdisciplinary or cross-curricular learning arrangements and can always be supplemented. Another source of thematic proposals for natural science education (and an inspiration for the cooperation between subjects) are the curricula of other subjects, particularly of geography.

Thematic area	Sample topics	Competencies*
1 Diversity of values, cultures and living conditions: Diversity and inclusion	· Treatment of animals – nature protection or food, examples of fish, whales and dolphins · Use of raw material, a global comparison · Eco-systems – protection or economic use? examples: rain forest and Wadden Sea · Concepts of nature in different cultures	3.1, 5.2, 5.3, 9.1
4 Commodities from around the world: Production, trade and consumption	· Bio diversity: a livelihood that has to be preserved · Contaminated consumer goods from all the world (food, clothes, toys (…)) · Sustainable production of raw material for consumer goods · Virtual water – consumption of water for the production of commodities	2.3, 4.3,5.1, 5.3, 11.1
5 Food and agriculture	· Renewable resources – competition between food and energy production · Food production in different agricultural systems (industrial vs. bio-dynamic production or monocultures vs. mixed cultures) · Consequences of rising meat consumption · How sustainable is a biogas plant?	2.2, 3.5, 5.2, 11.1
6 Illness and health	· Food and hunger in the world: Under-/mal-nourishment and their consequences · The ozone hole – causes, consequences and possible corrective measures · The global spread of viruses, example of AIDS and Ebola and the fight against them	1.3, 3.5, 6.2, 8.1

Thematic area	Sample topics	Competencies*
7 Education	· Examples for possibilities and limits of the contribution of natural sciences to sustainable development	6.1, 11.2
9 Protection and use of natural resources and generation of energy	· Energy from the sun – the thermic use of solar energy (e.g. the dream of Desertec) · Biological diversity and food security (diversity of crops and world nutrition; genetic engeneering, bio-piracy and food sovereignty) · Renewable raw materials – from rapeseed to bio diesel · From wood to paper: Is environmentally friendly usage possible? · Recycling instead of more and more waste · Wind energy as an alternative – production, transport, distribution, utilisation, costs · Low-energy houses compared · Consequences of exessive use of plastics: The plastic ocean · Water pollution through mining, industrial and agricultural production processes · Excursion to a biosphere reserve	Link to almost all competencies possible
10 Opportunities and risks of technological progress	· Hydrogen – energy resource of the future · The fossil energy trap · Mobile energy storage of the future · Nuclear energy in a globalised world – Fukushima and the energy transition · Fracking – sustainable technology or a new environmental risk?	1.4, 3.1, 3.5, 7.1, 8.2
11 Global environmental changes	· The global climate change – root causes, consequences, measures · Threats to, protection and sustainable use of bio-diversity	1.3, 2.3, 5.1, 5.3, 7.1, 8.2, 10.2
12 Mobility, urban development and traffic	· Results of pollution by increasing traffic (by land, water and air) · Trees in the city – indigenous or exotic? · The development of mobility – from bicycle to automobile and back · Noise and light pollution: causes, consequences and measures	1.2, 3.5, 5.5, 6.2, 10.4
13 Globalisation of the economy and labour	· The ecological footprint · Quality and effects of eco-labels · Automatic work processes	4.2, 10.1
15 Poverty and social security	· Analysis of a development project from a natural science perspective, in cooperation with an NGO	1.4, 3.3, 3.5, 5.2, 7.4, 9.2, 10.4
19 Development cooperation and its institutions	· Development cooperation and bio-diversity – the example Madagascar	1.4, 3.4, 4.1, 7.1, 7.2, 7.4
20 Global governance	· Threat or protection of global public goods (e.g. climate, oceans, control of contagious diseases)	1.1, 4.1, 7.4, 10.4
21 Communication in a global context	· Fair electronics – a nice dream?	1.1, 8.1, 11.1

* competency references see the list in chapter 4.4.2.2

4.4.2.4 Competency-oriented learning unit: Future sustainability of energy supply in a globalised world (form/year 10)

Rationale of the topic selection

For different reasons the topic "Sustainability of energy supply" is suited to illustrate goals and approaches of an education supporting global perspectives of an Education for Sustainable Development. It is relevant for everybody all over the world, and it needs to be rapidly brought to a solution in accordance with the internationally agreed principles of sustainability. Several didactic proposals including tested material like tasks and experiments for different subjects already exist on this topic, so that the implementation in regular lessons should be possible. The topic links the perspectives of different school subjects and allows a discussion within but also beyond natural sciences. All competency areas defined for natural sciences are addressed, and it is possible to differentiate according to interests and abilities. Furthermore, the interlink between individual, local, national and global decision processes can be demonstrated. It is relevant for the students' everyday life and an important element in public discussions as well as in scientific-technical discourses and research studies. It can be comprehensively addressed by linking biological (energy plants), chemical (energy storage) and physical-technical perspectives (energy transport). The topic offers different approaches for the implementation of didactical concepts and for the inclusion of findings obtained by general and subject-related research on teaching and learning. The students' interests can be addressed and supported via contextualisation ("context-based learning") and by structuring activities ("inquiry-based learning"). The subject Geography, which focuses on the spatial processes from natural and social sciences perspectives, is recommended for cooperation.

Competency grid

This learning unit is essentially meant to enhance the core competencies 1, 4, 5 and 11 of Global Development Education/ESD. The three attainment levels for the Secondary School Certificate (Level I) shown in the grid describe the expected results regarding the performance evaluation and feedback to the students. The higher attainment levels include the lower ones. The respective general conditions, learning groups and subject-specific priorities can result in different requirements. They may have to be supplemented by subject-specific and supra-disciplinary demands.

Specific competency of the learning unit	Subject-related-competencies (see chapter 4.4.2.2)	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
The students can apply a natural science perspective and are able to (…)				
1. (…) collect relevant information about energy supply and its development.	1.1, 1.4	(…) access (with help) information about aspects of energy supply, and represent them.	(…) select from different sources in a (largely) self-reliant way suitable information about energy supply and structure it.	(…) autonomously access information on energy supply from different sources, assess and structure them according to their usefulness for the assigned tasks.
2. (…) recognise different actors and decision-making levels in the energy supply.	4.1, 4.3	(…) recognise private households, business enterprises and political institutions as deciders and describe their respective role for the energy supply.	(…) point out the links between the different deci-sion-making levels and the actors regarding the supply of energy.	(…) demonstrate dependencies and conflicting interests in the global energy supply and estimate future developments.
3. (…) change perspectives to evaluate stakeholder positions in the field of energy supply.	5.4, 5.5	(…) describe their own wishes and expectations as well as those of other stakeholders regarding the development of energy supply.	(…) take the perspective of different stakeholders of energy supply, compare and assess their development strategies.	(…) understand diver-gent perspectives and decisions with regard to sustainable energy supply and critically evaluate them against the background of their own convictions.
4. (…) argue for a sustainable energy supply.	11.1	(…) develop own possibilities to pursue objectives of a sustainable energy supply and justify them from a natural science perspective.	(…) conceptually merge divergent strategies for a globalised energy supply into a sustainable development.	(…) adopt for important areas of life individual and societal options of a sustainable energy supply, and weigh advantages and risks from a natural science perspective.

Course of the learning unit

As Natural Science Education at Secondary Level I is organised in different ways the proposal allows for different forms of implementation. The three subjects Biology, Chemistry and Physics, with their respective focuses, can cooperate in a project phase, but the topic can also be addressed by an integrated subject "Natural Science".

The proposed course is structured in four phases (see table below). The **motivation phase (I)** motivates the students for the topic by using an up-to-date example. Prior knowledge is activated. In the following **Subject phase (II)** the students form small groups (of 2 to 3) and start the subject-related preparation by autonomously working on material from one of the three subjects Biology, Chemistry and Physics. **(IIa Entry, IIb Subject-related work)**. In **Subject phase IIc (Subject-related discussion)** the students come together in three subject groups (B., C., P.) and exchange the results of their work in phase IIb focusing on the respective subject. The students communicate the acquired subject-related knowledge as experts to one another after their work on a given theme (guiding questions). For the group puzzle – **Expert phase (III)** – five to six groups are formed that elaborate given positions on the future of energy supply from different perspectives, assisted by the subject experts present in each group. The results will be presented and discussed in the plenary **(Presentation and discussion phase IV)** (see Höttecke; Hartmann-Mrochen 2013).

	Content/objective	**Method**	**Lead time**
I. Motivation phase	Start with an up-to-date example	Presentation, discussion, whole class	15–45 min
II. Subject phase: a. Entry	Overview of subject related issues and thematic focus; formation of groups	Informative and planning discussion with the whole class	30–45 min
II. Subject phase: b. Subject-related work (Biology, Chemistry, Physics)	Elaboration of subject focuses with prepared questions and existing material	Self-organised work in 2–3 small groups for each of the 3 subjects Biology, Chemistry, Physics – e.g. by using mind maps and/or clustering/moderation methods	2 × 45 min
II. Subject phase: c. Subject related discussion	Exchange among 2–3 subgroups on the focuses of their respective subject	The students inform one another in the subject groups Biology, Chemistry, Physics about the findings on their respective topics.	2 × 45 min
III. Expert phase	Elaboration of different perspectives and arguments on the future of energy generation	Group puzzle: Subject experts elaborate in 5–6 groups (each with a chosen view on the future of energy generation) their specific point of view.	2 × 45 min
IV. Presentation and discussion phase	Exchange of results, reflection	Plenary session: The groups present their results; discussion	45–90 min

I. Motivation phase: Film clips, newspaper reports, advertisements etc. can be used as an entry to demonstrate the relevance of the topic: e.g. consequences of the use of fossil energy, debates about the competing utilisation of crop areas for food or bio-fuels, strategies for an energy transition, or newspaper reports on energy policy and technology in the past 50 years (see Haupt 2011).

Alternatively, a short role play with different stakeholders for sustainable energy and resource policy can be the starter which can be picked up and continued at the end of the unit based on the acquired knowledge.

II. Subject phase: Target of the subject-specific preparation must be to recognise and demonstrate the subject-specific approaches to the complex topic. Mind maps or cluster/workshop methods can be applied. After that, the members of the small groups bring together in the three subject groups (B., C., P.) their findings about the central questions of the three subjects and note open questions for the subsequent work. The students learn to approach the topic from a subject-specific view, and use their previously acquired knowledge. The Subject phase includes a subject-specific clarification (e.g. "How does a solar panel work?" or "What does canola need in order to grow?") as well as the collection and comparison of evaluation criteria. (At the end of this overview of the course, the subject phase will be shown in greater detail under).

III. Expert phase: By using the group puzzle, the expert phase integrates the different subject group expertises in new thematic groups. Based on this, the new groups elaborate and justify **specific arguments on the future of energy supply** from their respective perspective, e.g.:

1. perspective of an energy supply company
2. perspective of a farmers' cooperative in Brazil
3. perspective of a German nuclear family
4. perspective of a Non-Governmental Organisation
5. perspective of a head of division in the energy ministry

and – where appropriate – perspective of a developing or threshold country. In this phase, the assignments go beyond the perspective of natural sciences and the students elaborate their respective perspective by means of a guided internet research.

Here are potential questions from three different perspectives:

CEO **of a major power company** (1) listed on the stock exchange:

*   *Which forms of energy will probably generate the highest profit?*
*   *What are the effects of the political framework (e.g. levy for green electricity, transition from atomic energy) on the turnover and profit of the company?*
*   *Which company policy follows from the political and social conditions?*

From the **perspective of a farmer cooperative in Brazil** (2), the relationship between participation in the globalised market and production for the basic needs in their own society is of great importance. Private food supply is in conflict with the production of biofuel in industrialised countries (market prices for maize). Questions like the following are important:

- *Does the utilization of land for biofuel lead to higher food prices?*
- *Should the farmers lobby for export tariffs?*
- *Can the neglect of crop rotation in the extensive utilisation of land be justified?*

The rising energy costs for housing and mobility can be addressed from the **perspective of a small German family** (3):

- *What does the transition to renewable energy cost for a single family house/an average family of three members per year?*
- *Does the transition to an eco-friendly hybrid car make sense, if the purchase and operating costs are taken into account?*
- *Is a cheaper house in the countryside – despite the long distance to the place of work – an advantage compared to a flat in the city (with good public traffic infrastructure)?*

The individual groups can decide to additionally work on related general issues (such as: *Sustainable perspective for the future of energy supply in year 2050)* and contribute their findings to the final discussion.

IV. Discussion phase: The different expert groups present their arguments for a plenary discussion. Subsequently the conflicting positions can be demonstrated in a role play.

Subject-related foundation

Against the background of this cross-curricular project proposal with parts that may be outside the domain of the responsible teachers, the subject phases (IIb, IIc) and their contents are presented from the perspective of the three involved subjects:

Biology

Before starting this unit, a subject-specific preparation should address fundamentals of energy (radiation energy, chemical energy) and the principles of photo synthesis, abiotic factors as well as basics of ecological contexts.

The focus of **Subject phase IIb** is on the **use of agricultural crops for energy supply**. Here, different plants cultivated in Central Europe as well as in tropical and subtropical regions shall be compared with regard to their respective ecological claims for using them as energy suppliers. *Which plants/crops/parts of plants can be used as energy suppliers? What does rapeseed/maize need in order to grow?* The specifics of the C4 path of CO_2 fixation can be the key to the diverging energy efficiencies of C3 and C4 photo synthesis.

The objective of the first lesson of subject phase IIb is to enable the students to estimate the ecological needs of different crops and the economic and ecological consequences of a supply that covers the demand for energy. Particularly, the problems of the demand for land and the competition/conflict of the cultivation of energy crops with the cultivation of food crops should be addressed. An in-depth analysis of this topic can help the students to estimate the energy efficiency of C3 and C4 photo synthesis and to elaborate a cost-benefit calculation as well as a CO_2 balance for the cultivation of crops for energy supply. The overall goal is to lead the students to an estimation of the amount of renewable resources that can be used as sources of energy, i.e. as an alternative to fossil energy sources.

The focus of the second lesson of subject phase IIb is on the ecological effects of an extensive cultivation of "energy crops". *What are the consequences of monocultures for biodiversity?* A comparison of Central European monocultures in industrial and organic farming as well as the consideration of the consequences of tropical and subtropical monocultures with their land use and progressive repression of natural ecosystems shall help to estimate the expected or already present consequences for indigenous animals and plants.
The goal of this phase is to enable the students to realise the consequences of monocultures for natural ecosystems and for biodiversity. Furthermore, the socio-economic consequences of such a kind of cultivation for developing and threshold countries shall be estimated. An indepth analysis of these questions can help the students to assess the impacts on the genetic pool and on the indigenous fauna and flora.

In **subject phase IIc** the findings of the first two lessons (subject phase IIb) will be combined. This allows a comparison of the benefits with the negative consequences of a large-scale cultivation of agricultural crop plants as sources of energy, namely the consequences for nature (e.g. biodiversity) and man (energy vs. food crops). Here, the global perspective has special significance: *What are the consequences of a large-scale cultivation of agricultural crop plants as sources of energy for the economic and social structures in the producing countries if the energy is exported to industrialised countries? What are the consequences of the competition for land use of energy crops versus food crops, for the people in the producing regions?*

Chemistry
A subject-specific preparation should secure the needed prior knowledge as introduction to the learning unit (central substance classes of organic chemistry, homologous series, oxidation products of hydrocarbon as well as binding energies and energetic aspects of chemical reactions). Specifically, the types of reaction (especially redox reactions) and the characteristics and results of combustion products should be addressed here.

In **subject phase IIb** the focus is on the **path from the energy source to usable energy**, taking the examples of rapeseed and petrol. Here, different aspects (production, technical and chemical processing, eco-balance, ecological consequences) should be addressed (for material see e.g. Bader, Nick; Melle, 2001). Afterwards, the characteristics of rapeseed and bio diesel should be investigated and compared with standard diesel. *What is the CO_2 balance of the different fuels? What are their respective combustion products? What does a fair and comprehensive balance look like?*

The goal of the first lesson of subject phase IIb is to enable the students to differentiate between diverse kinds of fuel, by addressing the chemical structure, the production and the different characteristics of the substances, and hence differentiating between substance classes of organic chemistry. With respect to the production and use, they should assess the economic and ecological impacts of a potential energy supply that covers the demand. Furthermore, the students are able to define aspects of the CO_2 balance and take them into account for the comparison of different fuels.

The **second lesson of subject phase IIb** deals with chemical energy storage. Here, the students shall learn about the possibilities of chemical energy storage. *What is the difference between battery and accumulator systems? And how are fuel cells different to them?* Here again, the main focus is on comparing the different systems, but also on taking into account the preconditions of central, decentralised and local scenarios of a respective energy supply, e.g. for car traffic.

The students should be able to define and describe alternative means of energy supply for cars. Here, the technical challenges which have to be met in order to make broader use of the different technologies, need to be clear; this particularly applies to the generation, storage and transport of hydrogen. Towards the end the students should be able to estimate the potential significance of a hydrogen based drive as an alternative to fossil energy sources.

In **subject phase IIc** the findings of the first two lessons (subject phase IIb) are brought together. Thus, the pros and cons of mobile energy supply based on renewable energy (combustion engine) are compared to an alternative engine (electric car). This comparison is targeted at the question about the differences that need to be taken into account for a sustainable energy supply in the field of transport. Here, the use of unsustainable oil resources as fuels or raw materials are important as well as the environmental impacts through traffic and industry as regional considerations, but also on a global level with respect to the emission trade with CO_2-certificates. *What are the differences of the situation in quickly growing emerging countries (exploding demand of cars, development of the needed infrastructure) as opposed to industrialised countries (stable demand of cars on a high level, existing infrastructure which has to be transformed)?* Here, the chances of interlinking regions of high energy and fuel consumption with potentially producing regions can be addressed by using the example of hydrogen/water splitting by means of solar energy (e.g. in deserts).

Physics

The subject-specific preparation is focused on two aspects: 1. Transport of electrical energy (direct and alternating voltage, transformation, line losses) and 2. physical energy sources (wind energy, solar energy, atomic energy). The subject-specific contents either need to be worked at within the subject lessons, or the already existing knowledge has be brushed up in the introductory lesson of the project (subject phase IIa). Relevant contents are: alternating and direct voltage, electrical resistance, line losses, transformation, generator and electric engine, electric power in the household as well as energy, energy sources, forms of energy.

Based on their knowledge of simple electric circuits, direct and alternating voltage, transformation and line losses, the students learn in the **first lesson of subject phase IIb** how the national and European grid are structured and explain the advantages of this network. The students gain an overview of the sources that currently exist in Germany and if they can be described as central or decentralised. The students can explain at least one standard form of electric energy transport from a source to a user. In-depth analysis of the topic can enable them to assess the requirements and effects of decentralised types of supply. With respect to the peak load, to regional dependences, energy demand at night and storage means, there are special requirements for the grids which have to be taken into account in the future. Ultimately, the students should orient at the central question: *How sustainable are national central concepts of energy supply in future with regards to the emerging use of renewable energies?*

In the **second lesson of subject phase IIb** the students should assess the usability and cost-benefit effect of different energy sources. The differing costs on the one hand and the geographical dependence on the other hand should help the students to consider that decentralised energy concepts alone can hardly be sufficient. A comparison with central, fossil or atomic energy concepts helps to realise that a change of energy sources has to lead to changes in the entire supply concept, regarding the grids and government planning. A deeper analysis of possible costs and of CO_2 balances of different sources can provide important additional information. The second central question of this phase can be: *Which factors need to be taken into account for the joint use of fossile and renewable energy sources?* A subject-specific exchange which includes data on the transport and the sources of energy (subject phase IIc) will expand the perspective to the global dimension. This will generate the following final guiding questions: *What are the additional opportunities through the internationalisation of energy markets? What are the perspectives to be taken into account in addition?*

4.4.2.5   Performance monitoring and learning-progress interviews

The selected specific competencies and the competency grid for this learning project with its attainment levels describe the expected results with regard to performance monitoring and learning progress-interviews. The students should be informed at an early stage about these targets which should be supplemented by requirements regarding the supra-disciplinary competencies, like the ability to cooperate and to make a presentation. A challenge for the teacher is the open design of the teaching unit for which a performance evaluation with the help of portfolios, reflection sheets or by means of mutual student evaluations is recommended. (see Winter 2008; Paradies, Wester; Greving, 2005).

The necessary steps for an appropriate monitoring and feedback are:
1. Operationalisation of the selected specific competencies in the project phases
2. Elaboration of further criteria for the differentiation of performance levels, in order to enable a comprehensible transformation into grades/marks.
3. Selection of appropriate methods for the monitoring in open learning arrangements and forms of individual feedback.

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4.5 Secondary Level I: Physical Education/Sports

Petra Gieß-Stüber, Ansgar Thiel

4.5.1 Contribution of PE/Sports to Global Development Education/ESD

Sport is deemed to be the largest civic movement in Europe. In the "European Year of Education through Sport" in 2004, more than 100 Million people from 15 European Union member states were organised in more than 700,000 sports clubs. The German Olympic Sports Confederation ('Deutscher Olympischer Sportbund', DOSB) alone had more than 27 Million members in 89,250 sports clubs.[150] With these masses of people who are interested in sports, this field is politically and economically important. But there are also other indicators that show the international relevance of sport for society, namely its role in mass media entertainment, socio-cultural integration or health promotion. Last not least, today sport is an important ecological factor, being as well perpetrator of damages as environmental protectionist. Hence, we have points of reference to all dimensions of Global Development Education/ESD.

In political rhetoric, sport has a long tradition as a medium for international understanding. Sport is seen as a "supra-historical anthropological dimension" (Eichberg, 2001, p. 44) with an intercultural identity and with globally valid rules and values. Due to its globality, sport is particularly suitable as a study field for Global Development Education/ESD. Since the first Olympic Games of modern times, top-level sport is a system with global, temporal, factual and social structures. Top-level sport is globally organised, with globally valid rules for performance measurements in each respective discipline which are represented by global organisations. Often, the protagonists, namely the athletes and coaches of many sports disciplines, are world famous. Due to the interrelations of top-level sports with business and media companies there are a multitude of mutual interdependencies. The clubs of many sports rely on global labour migration, in order to achieve top performances. Also, sport is a global medium for "clubbable communication". By the use of the internet and of English as a universal language the fans can discuss in chat forums about "their club" even if it may fight thousands of miles away from the fan's home town. At the same time, the practice of sport also depends on specifically regional traditions and value systems which form the individual cultures of movement and physical practices and which lead to considerable national differences in the organisation of mass and youth sports. With regards to the systemic relationship of human beings to nature, the human "movements" have a crucial role for exploring and appropriating space. The ecological relevance of sports results from the growing significance of self-organised physical leisure activities in nature. The safeguard of spaces and opportunities for movement is an important concern in our increasingly urbanised societies.

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[150] http://www.dosb.de, 27. 10. 2016

Sport, game and movement provide for a multitude of links to educational enactment and reflection in the context of Global Development Education/ESD. Here it is important to take into account that it is a central concern of school sport at Secondary Level I to build a foundation for movement-specific skills, to expand the experiences of movement and body and to open the access to physical activities. Through this focus on corporal possibilities of action and experience in the fields of movement, game and sport, sport has a unique position with regard to the mediation of educational contents. For example, social and intercultural learning can very well be inspired in physically and movement centred organisational forms. Due to the important role of non-verbal communication in sport education, due to the global and inter-generational familiarity of values and norms in sports, but also due to the holistic experience of hitherto unfamiliar practices and authentic personal contacts, the probability of integrative and intercultural understanding of people from different cultural, social, religious and regional backgrounds is much higher in sports than in any other discipline. Furthermore, it has repeatedly been supported empirically that sport is the favourite school subject of many pupils. Due to the great popularity of this subject we can expect that the students are willing to critically analyse and reflect politically and socially relevant topics by using sport as an example. We can assume that problems of global development can very well be demonstrated by using examples of sport, because in sports the issues of society that should be discussed are most closely related to the lifeworld and activities of the students.

The current guidelines and curricula address the (double) task to develop the sport and movement culture and also to develop the personality. In addition, the link of these tasks with the topics of global development not only supports the dimensions of *Acting* but also the core competencies in the areas *Recognising* and *Assessing*. Current curricula do not include theoretical sport education at Secondary Level I. However, the topics of Global Development Education/ESD have to be closely interlinked with the practice of sport and, wherever possible, implemented in cross-curricular or subject-linking projects.

4.5.2 Subject-related competencies in the context of global development

School sport can effectively contribute to the acquisition of core competencies of Global Development Education/ESD. Physical Education can serve as a hub for interlinking many learning objectives and for cross-curricular cooperation. It can help to train in a playful way, movement based and interactively, contents which have been studied in other subjects. Extracurricular projects can extremely benefit from movement oriented parts.

Recognising

Many phenomena and conflict areas of sports can only be explained by using basic knowledge of other subjects. Therefore, it is an important precondition for the orientation towards questions of global development to work in an interdisciplinary and subject-linking way. For example, the analysis of socio-economic contexts in sports facilitates the insight into and understanding of functions and consequences of economic development. The global interdependences of the system of top-level sports with politics, business and the media can become apparent by exploring questions like why some top-level sport contests, e.g. pelota, are confined to small regions, with little supra-regional popularity, while other sports like football are globally sponsored by international companies and globally broadcasted via television. Likewise, the study of the idea of international understanding through sports can support the sympathy for the opportunities of people from different regional, social and cultural contexts to participate in society. Equal opportunities, fairness and intercultural understanding are the core commitments of the Olympic movement and integrated parts of projects in development cooperation and sports. At the same time, the radicalisation of the principle to win in sport contests has consequences which are in conflict with these traditional values. Hence, sport is a very suitable topic to enhance the understanding of the unintended global consequences of the dominating performance mind-set in society. It is important to take these potentials into account, in addition to the lesson times of physical movement.

Assesssing

Often, global developments in sports are very complex in nature and cannot be simply forced into a scheme of good and evil. Doping, e.g., probably the most discussed deviance in sport, is not just an offence of the athletes but a structural effect of the attempt to avoid anticipated disadvantages, to respond to pressure from the sport environment and of the constriction of the athletes' biographies by totally focusing on sport alone. Especially the globalisation of sports, with a radicalisation of the claims of business, politics and the media, aggravates the already existing situation of high costs for the athletes and coaches, so that a sequence of batterings will ultimately lead to a worst-case-scenario. The students should be able to study the sustainability of these developments and to form their personal opinions about the shady side of the glittering and often tantalising world of top-level sports. In order to evaluate regional developments of sport it is important to learn about the origin and significance of regionally confined popular sports. Klootschieten e.g., is a historical sport from Frisia in Germany which is culturally rooted in this region and connected with the preservation of old customs and habits. Furthermore, the instrumentalisation of international sport contests for national political targets, the handling of equality in commercialised top-level sport when different nations with different socio-economic and infrastructural

preconditions compete with one another, have to be seen critically. With regards to mass sports, the students should be able to assess the realisation of integrative effects which are ascribed to sports. Here, the question is relevant whether the integrative effects of sports are indeed as strong as it is claimed by politics. Is it sufficient attempt to integrate immigrants if we do some sport together with them? The students should contemplate about the conditions which are needed in order to make sports clubs attractive for immigrants as a place to practice sport, if they are not familiar with these kinds of organisations, and about potentially alternative forms of common sport activities that could support the integration.

Acting

Practical sport education offers many opportunities to translate contents of Global Development Education/ESD into direct activities. For example, the sport and movement cultures and traditions of other countries can be addressed and physical exercises of different cultures and historical eras can be trained. This will give the students the chance to become familiar with culturally diverse interpretations of popular sports. One goal is to enable the realisation of the cultural relativity of the own activities, a second is the acceptance of the potential "physical strangeness" of people with a different religion or regional origin with regard to their concepts of socially sanctioned physical contact, (partial) nakedness or physical expression of emotions. The direct experience of such contents through movement and games not only expands the own horizon but also the scope of the students' ablty to act. In sport, the students can acquire and strengthen their competency of acting and their ability to communicate non-verbally and recognise the limits of a purely physical form of communication, even if the rules of their common sport activities are known to all. The advantage of school sport is that contents can be translated into physical movements which are closely connected to the respective lifeworld and which are an important element of education, also in the context of projects and stays in a Schullandheim. Under these circumstances, there are plenty of opportunities to actively work on the action targets of Global Development Education/ESD and to acquire acting competencies.

4.5.3 Subject-related competencies in PE/Sports for Secondary School Certificate (Level I) linked to core competencies of Global Development Education/ESD

Students are able to (…)

	Core competencies	Subject-related competencies
Recognising	**1. Acquisition and processing of information** (…) acquire information on issues of globalisation and development and process it topic-relatedly.	1.1 (…) acquire information on the manifold regional and international sports and on organisations of global ports. 1.2 (…) recognise in media reports the interrelations of sports with business, television and politics, and present them.
	2. Recognising diversity (…) recognise the socio-cultural and natural diversity in the One world.	2.1 (…) describe by examples the rules and rituals of different cultures of movement, and assign them to their regions of origin/practice.
	3. Analysis of global change (…) analyse processes of globalization and development by using the concept of sustainable development.	3.1 (…) analyse the effects of the worldwide race "faster, higher, further" on the traditional values of sport. 3.2 (…) realise and describe the effects of individual and collective sports activities on the natural environment. 3.3 (…) analyse the reasons for the emergence of trend sports.
	4. Differentiation between levels of action (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	4.1 (…) describe the basics of the sports organisations on the local, national and global levels. 4.2 (…) use examples to analyse the development of sports and their significance for different levels of society and target groups.

	Core competencies	Subject–related competencies
Assessing	**5. Change of perspectives and empathy** (…) realise, appreciate, and reflect upon own and others' values, and their significance for life.	5.1 (…) understand and tolerate different attitudes towards the human body in other cultures and religions. 5.2 (…) comprehend forms of playing and moving in other societies and other historical eras.
	6. Critical reflection and comment (…) comment on issues of globalisation and development by critically reflecting and orientating at the international consensus, at the principle of sustainable development and at human rights.	6.1 (…) comment on the development of global top-level sports against the background of human rights and the basic values of sports. 6.2 (…) examine the significance of the popular idea of fairness and reflect the transfer of this value to other areas of life.
	7. Evaluation of development projects (…) work out approaches to evaluate development projects (here and in other parts of the world), with respect to diverse interests and general conditions, and come to self-reliant conclusions.	7.1 (…) investigate and evaluate the problem of the international recruiting of young athletes and of the transfer of players in professional sports. 7.2 (…) analyse the recent development of the Olympic Games or the Football World Cup with respect to the different interests and the role of the media, and come to their own assessment.

	Core competencies	Subject-related competencies
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	8.1 (…) realise forms of discrimination in sports and find ways to reduce them. 8.2 (…) use a concrete example (possibly from their close environment) and show how sport activities can be eco-friendly
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	9.1 (…) use an example to present de-escalation measures in cases of conflict among fans. 9.2 (…) develop alternative rules for games and test them on their potentially positive effects.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	10.1 (…) convincingly present and discuss the individual limits in the striving for fitness and success in sports for themselves (or a sport idol).
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields, and to participate in their implementation in society and politics.	11.1 (…) present and legitimate the central statements of their own targets of sustainable development in sports.

4.5.4   Sample topics

The following proposed sample topics do not claim to be complete or to set content priorities. They are obvious topics which show the possibilities to strengthen or develop in Physical Education (but also cross-curricular or subject-linking learning units) competencies of Global Development Education/ESD.

Thematic area	Sample topics	Competencies
1 Diversity of values, cultures and living conditions: Diversity and inclusion	· Harmonious or competitive games?	1.1, 2.1, 3.1
	· Diversity of game-, dance- and movement cultures	1.1, 2.1, 5.2 8.1, 8.2, 9.2
	· Developing games/inventing rules	1.1, 3.3, 4.2
	· Wheelchair basketball goalball	10.1
2 Globalisation of religious and ethical guiding principles	· Olympic Games in ancient and modern times	1.2, 3.1, 6.1, 7.2
	· Religion and sports	1.1, 2.1, 5.1, 8.1
3 History of globalisation: From colonialism to the "global village"	· Colonial distribution of sports	1.1, 2.1, 5.2
	· From amateur to professional	3.1, 6.1, 10.1
6 Illness and health	· Sports and health	3.3, 10.1, 11.1
	· Doping	3.1, 6.1, 10.1, 11.1
7 Education	· Body and mind	2.1, 3.1, 10.1
	· Sports and inclusion	5.1, 8.1, 9.2, 11.1
8 Globalised leisure-time activities	· Sports tourism and adventure sports	1.1, 3.2, 3.3, 11.1
	· Soft tourism	3.2, 11.1
	· Trend sports and scene events (from hip-hop to flash-mob)	1.1, 1.2, 3.3, 4.2
9 Protection and use of natural resources and generation of energy	· Ecological orienteering run	3.2, 8.2
	· fit4nature – following ecological criteria in sports activities	3.2, 8.2, 11.1
	· Sustainability strategies of sports associations	1.1, 3.2, 4.2, 8.2
10 Opportunities and risks of technological progress	· Sport at its limits – sports and technology (e.g. motoring)	1.1, 1.2, 3.2, 11.1
12 Mobility, urban development and traffic	· Be on tour with the bicycle	1.1, 8.2, 11.1
	· Urban movements	1.1, 2.1, 8.2
13 Globalisation of the economy and labour	· Sports clubs as business companies	1.2, 7.1
	· Commercialisation and marketing of sports	1.2, 6.1, 7.2, 11.1

Thematic area	Sample topics	Competencies
14 **Demographic structures and developments**	· Training and personal age · Global trends: forever young and anti-aging sports	10.1 3.3
16 **Peace and conflict**	· Contests and fairplay · · Fun and trouble with fans · How can sports contribute to peace and reconciliation? (e. g. football4peace, Street Football for Tolerance)	6.1, 6.2, 7.2, 9.2 1.2, 8.1, 9.1 6.2, 8.1, 9.2, 11.1
17 **Migration and integration**	· Migrants and the transfer of professional football players – Migrants in hobby football · International recruitment of young professionals in sports	4.1, 4.2, 6.1 1.1, 7.1
18 **Political rule, democracy and human rights (Good Governance)**	· Historical and social conditionality of the chances to participate in sports (example: the development of women's football) · Instrumentalisation and boycott of major sports events	4,2, 8.1, 11.1 1.2, 6.1, 7.2, 11.1
19 **Development co-operation and its institutions**	· Projects of development cooperation in sports	4.2, 11.1
21 **Communication in a global context**	· Sports and media reports	1.2, 7.2

4.5.5   Competency-oriented learning unit: Global Football (form/year 10)

Football is a downright ideal-typical example of a global system. Plenty of people in most countries of the world are familiar with the basic rules. All over the world, people play football. But football is also an important entertainer, one of the most frequent topics of social conversation in almost all continents, and last not least it serves for the national and regional identification in an increasingly globalised world. If the theoretical topic of the global organisation of football is connected with actively playing football – which is part of sport education in all Secondary Level I curricula – we have a particularly suitable way to connect subject-specific competencies with the relevant core competencies of Global Development Education/ESD.

From a global perspective, football is an excellent topic for a learning unit as it affects society as a whole, as it is an important economic factor and medium for pursuing political interests and as it takes globally influence on politics. Furthermore, large sport events often have major effects on the environment.
- In top-level football, there is a globally connected championship organisation which – apart from its influence on sport politics – also takes major influence on general politics.
- Globally, more than one Billion people watch events like the men's world championship. Behind the sports-related targets there are the business interests of a global economic system.
- Today, all over the world football clubs have their fans. The broadcasting rights for games are among the most important financial resources, and it is therefore very important to participate in competitions like the Champions League.
- In top-level football, there is global labour migration. This is not only characterised by the transfer of players within the top leagues of the world, but also by the migration of young people from "peripheral" leagues (e.g. from Africa or Latin America) to the performance centre (Spain, England, Germany, France, Italy).
- The top clubs have recruitment networks all over the world. The players' agents and scouts not only organise the "trade" with experienced players but also with athletes who are quite young when they have to leave their home towns and families, learn a new language and get acquainted with foreign customs. These young players have to find access and become familiar with the teams where an extreme pressure of competition and crowding out is prevalent. Often, their only contact persons are their coaches, scouts or physiotherapists.

With the learning unit *Global Football* the students will get the opportunity to actively acquire knowledge about the backgrounds and effects of the global development in top-level football. The central idea is to perform a role play in which the students re-enact roles which are purposefully simplified and stereotypical in order to help them comprehend the structures of global football and their effects on the activities of the stakeholders.

In order to establish a connection to the topics and competencies of Global Development Education/ESD, the link between objectives, rules and experienced practice of the game need to be understandable for the students. For this purpose, phases of active playing alternate with phases of instruction when the students receive assignments, when different roles negotiate with each other and strategies are worked out. The pedagogical opportunities of this role play are mainly in the final reflection phase when the students discuss about their experiences in the role play and on what they have learnt. The potential of *Global Football* can be made fully use of in a subject-linking project of several hours. The students have the opportunity to look behind the curtains of global football, to recognise how much the activities of players, coaches, managers etc. are influenced by interests which are not directly related to sport, and to learn about the players' constraints. Apart from the perspectives of sustainable development (economic performance, social justice, ecological compatability, good governance) the following thematic areas of the Curriculum Framework are addressed: 1. Diversity of values, cultures and living conditions, 8. Globalised leisure time activities, 13. Globalisation of economy and labour, 17. Migration and Integration.

Competency Grid

This learning unit is essentially meant to enhance the core competencies 1, 4, 6, 7, 9 and 10 of Global Development Education/ESD. The three attainment levels for the Secondary School Certificate (Level I) shown in the grid describe the expected results regarding the performance evaluation and feedback to the students. The higher attainment levels include the lower ones. The respective general conditions, learning groups and subject-specific priorities can result in different requirements. They may have to be supplemented by subject-specific and supra-disciplinary demands.

Specific compe-tencies of the learning unit	Subject-related compe-tencies	Level of attainment 1 (min.)	Level of attainment 2	Level of attainment 3 (max.)
Students are able to (…)				
(…) apply the so far acquired skills of playing football.		(…) play football compliant to the rules, also by accepting an assigned role.	(…) play football compliant to the rules, accept different roles and apply strategic orders.	(…) play football compliant to the rules, and successfully apply crucial roles as well as sophisticated strategic orders.
(…) investigate the application and effects of inter-national football rules.	1.1, 4.2, 9.2	(…) apply their knowledge of international football rules (FIFA) for checking their own experience with playing and the generally known game courses.	(…) critically analyse the significance of international football rules (FIFA) and realise the effects on football activities.	(…) state convincingly reasons for the effects of international football rules (FIFA), particularly on the behaviour of the players and on the career opportunities of young athletes.
(…) recognise, analyse and evaluate global developments in professional football.	1.2, 7.1	(…) use examples to describe global developments in football, and to establish links to international labour migration.	(…) recognise global commercialisation developments in football and evaluate them by the example of the transfer of players.	(…) critically comment on global developments in football and on examples of the transfer of players and present arguments for limits to an acceptable commercialisation of professional football.
(…) reflect the system of top-level sports with regard to central conflicts	6.1, 8.1, 10.1	(…) describe the competition driven conditions of top-level sports and critically evaluate them by examples.	(…) explain dominant system requirements of competition and the victory driven top-level sports, and reflect on the consequences for individual options.	(…) critically evaluate the limits of competi-tion and performance pressure in sports and elaborate proposals for the improvement of equal opportunities.

Idea of the game and course of the project

In several phases, two teams play football against each other. The idea of the game is adjustable to any group size and to the size of the available playing field. Some students are asked to take certain roles which are standard in top-level football. In the breaks, the role owners can interact with one another: E.g., the manager of one team can try to acquire a good player from the other team, or a scout can offer a "secret substance" to an injured player so he will quickly recover to full strength.

The MC/referee (mostly the teacher) changes the initial scenarios repeatedly in the course of the game. The players can be advised, "treated" or sold during the breaks, or team leading strategies, tactics or team line-ups can be discussed. Thus, the standard football game is supplemented by a role play. As the goals scored in all phases of the game are counted and as the winner will only be clear at the end, the students have to act strategically within their respective roles in the breaks. The potential scenarios of the game include constraints and compulsions to act which are typical for global football.

Preparation

The students will be informed about the event in due time through an info sheet with all needed information. This paper also introduces the game's rules. All students are asked to study these rules beforehand because the introduction at the beginning of the first double lesson is only meant for answering questions. The info sheet also points out that it might be very helpful to closely monitor media reports about other football related events during the days prior to the event.

Role allocation

- Players without limitation:
    - The respective students play without restriction.
    - The players have different values (player without scored goal: 100€, the value is increased by 50€ per scored goal; goalkeepers also have a value of 100€. The goalkeeper's value is increased by 10€ per victory in a singular game).

- Young players from another country, no language skills:
    - The student has to use earplugs which inhibit his communication. He can take language lessons from a teacher (in this case, he can take off the earplugs after two language lessons). But these lessons need to be taken during the strategic team discussions. If he wants to miss these team discussions, he has to get his coach's permission. But he can only ask nonverbally for this permission.
    - His scout is the only person with whom he can communicate without any restriction. But the scout is not allowed to participate in the team's strategic discussions. Hence, in order to be consulted by his scout, the player has to leave the strategic team meeting.

- Young player with little economic resources
  - The player plays without shoes.
  - The scout offers his player shoes as soon as he has scored three goals.
  - The player only has a short-term contract.
  - The manager renews the contract only on the condition of a good evaluation of the player by his coach and of team success.

- Injured player:
  - It is chosen by random whether or not players get injured. Each player throws dice before the game. If the player throws a 6, he is injured.
  - Injured players will be loosely bound at their legs, so they can still run, but are restricted in their movements. In the first phase, injured players play for the whole time.
  - In the first strategic team meeting the co-players and the coach have to decide whether or not the injured player can continue with the game.
  - The player can ask his scout to give him a remedy to cure his injury. But this substance is on the list of illicit doping. The probability that the player is caught is 1 : 2. If he should opt for taking the substance the tie between his legs is taken off again. In this case, his team members and the coach are informed that the player is fit again. But in the following phase, the doping control will check him.
  - Alternatively, the player consult a physician. The medical treatment will be during the game phase. If an injured player consults a physician the whole team has to play with one player less during this phase.

- Scout (1 per team):
  - The scout is the closest contact person for the players for negotiations regarding their salary and contract term.
  - The scout determines his player's costs. He negotiates with the manager about a player's potential transfer to another team.
  - The scout also mediates "unofficial performance aids" (doping substances, physicians, healers)

- Manager (1 per team):
  - The manager recruits players, decides about the contracts and communicates the club's expectations to the players.
  - The manager can buy players from other teams and invest play money for that. In order to create incentives to sell a player, the manager can offer this player a guaranteed engagement or position in the team.
  - The manager of team A has a total sum of 1,000 'play euros' at his disposal, the manager of team B only 750 'play euros'.
  - At the end, the team with the highest value of players will receive 2 bonus goals.

- Coach (1 per team):
  – The coach decides about the lineup and tactic of the team.
  – The coach is always entitled to call a player for a meeting.

- Doping inspector:
  – During the team meetings, the doping inspector can control the players about doping. This control is simulated by throwing dice. If a 1 or a 6 is thrown, the respective player has to tell whether or not he has taken an illicit substance. In all other cases, the player will not face any consequence.
  – If a doping control is positive, the respective team loses 4 goals, the player is taken out of the game and has to sit on the "fraudster bench".

- Journalist of "World soccer journal" (two persons can take this role):
  – The journalist reports for a globally read web portal.
  – If this portal reports about a player, this player's advertisement value and global popularity is raised.
  – In the breaks of a play, the journalist tries to interview the stars of the teams (those who have scored the most goals).
  – Players who are interviewed will miss the whole strategic team meeting.
  – The interview with the journalist will make them even more attractive for other team managers, which in turn means that they will be headhunted.

- Journalist of "Special interest journal" (two persons can take this role):
  – The journalist is the "brain" of the game holding all data together (scored goals, players' values etc.). At the end of the game, he can present the results.

- Facilitator/MC (sports teacher/student teacher/trainee)
  – The facilitator guides the event (low-key – actively only when needed); he/she stimulates in the strategic team meetings (s. "Overview of the project course" next page)

The referee's role can also be given to one of the students.

Spatial and factual preconditions
- Gymnasium with space for 2 teams to play against each other
- Substitutes' benches which are grouped in a way that strategic teams meetings and individual meetings are possible
- 2 whiteboards with several washable markers for the team meetings
- Dices, play money, several elastic bands, 4 earplugs, writing utensils (paper, pens)

Overview of the project course

1. Double lesson

Minutes	Content of the unit
20	Explanation of the game and allocation of roles
5	Warm-up
5	Strategic team meeting phase (unguided)
7	First game phase
10	Strategic team meeting phase (guided 1: MC gives impulses, roles are being modified)
7	Second game phase
10	Strategic team meeting phase (unguided)
7	Third game phase
5	Cool down
14	Intermediate summary (scores are counted) and team reflection
Movement time: 31 Minutes	

2. Double lesson

Minutes	Content of the unit
10	Strategic preparatory meeting (guided 2: MC gives impulses, roles are being modified)
5	Warm-up
10	Strategic team meeting phase (unguided)
15	Fourth game phase
15	Strategic team meeting phase (guided 3: MC gives impulses, roles are being modified)
15	Fifth game phase
5	Cool down
15	Intermediate summary (scores are evaluated) and team reflection
Movement time: 40 Minutes	

Follow-up session

In order to have as much time for moving as possible within the sport lessons, the final re-flection will be in one of the following lessons.

Strategic team meeting phases (guided)

In the strategic team meeting phases the coaches decide about the line-ups for the next game. The managers and scouts will have the opportunity to interact with other members of their team or of other teams. Examples:
- A scout takes an injured player aside and offers him a doping substance.
- A coach exchanges a player or reprimands him for having missed a team meeting.
- A manager contacts a player.
- A journalist interviews a player, the coach responds with a sanction to the player's absence.
- Players talk to one another (e.g. they have to try to communicate with the injured player or with the player who has earplugs).

The role owners should consider what they want to achieve (e.g. the injured player wants to play, he is offered a doping substance and has to check and weigh his personal benefit against his moral principles and the risk). The MC can intervene in the team meetings and inspire the role owners to act in a specific way (as abstractly as possible, "contact player xy").

Final discussion: potential questions for reflection

(adapted to the specific competencies of this project)
- How did you experience the game? Did you all have your fun? Was everything fair?
- How did you feel in your role?
- What constrictions did you feel in your role?
- Do you now, after this game, have a changed attitude towards top-level football?
- What is the significance of fairness and humanity in top-level football?
- To which extent do we have equal opportunities in top-level football?
- What are the main objectives of each participant in top-level football (players, coaches, managers or scouts)? Which conflicts are the results of the different interests?
- To what extent does the urge to win influence the understanding of and empathy for the others?
- How far would you go as player, coach, manager or scout in order to be successful?
- How could we make top-level football more humane?

Securing and presenting the results
- Creating a portfolio: Brief documentation of the project and of the own role:
  – What did I learn about top-level football?

- Short journalistic reports from the different perspectives of the actors, for the school homepage (the "journalists" are the editors)

- For a comprehensive evaluation, the interventions of the manager/journalist/doping inspector and their results can be noted down and presented to all (as briefings which should be read to all in one of the following lessons).

Target horizon

(depending on the prior knowledge and the general conditions of implementation)

- The students know football as a game which is played in all continents and has rules which are prescribed in the international context of the FIFA and which people from all over the world at least have some basic understanding of.

- They are able to realise and explain global developments and interconnections of professional football

- and to critically handle media reports about football against the background of globalised top-level sport. They especially recognise the interrelations between business, sport, television and politics as well as the potential conflicts of particular interests.

- The students understand that the different conditions in different world regions result in unequal opportunities in football. They feel empathy for the constrictions and problems of players who have to leave their home countries at a very early age in order to become successful in top-level football.

- The students are able to define important initial conditions for participating in the football "business" in the different parts of the world. They know the stakeholders who decide whether or not young players will get a chance and what kind of return service is expected of them.

- This staged kind of football under the conditions of a "talent show" reverses the "lack of consequences" principle in sports. The students are able to understand the situation of professional players and to critically reflect the significance of competition and pressure to perform. They recognise that the competition for a place in the squad is extremely high, as is the pressure to be successful. They are able to define the stakeholders who exert pressure on the players and can explain their motivation.

- The students recognise the systemic conformities of top-level sport which result from the fact that victory in competitions is in the focus of each and every action. They are able to explain the restrictions of personal options through structural conditions, and that for many players it is not so easy to freely follow their own moral principles (e.g. against doping) because there is way too much at stake.

4.5.6   Performance monitoring and learning-progress interviews

The continuous observation of the students on the background of the desired specific competencies and the dialogue with them are the foundation for the assessment of their performance. The aim is to successively enable them to realistically evaluate their own performance in relation to the aspired education targets, to realise learning needs and plan their own learning process.

The dialogue with the students gives the teachers important hints about the project's effectivity, which enable them to design following learning phases in a way that an individual support becomes possible.

The practice phase, the common final review and the optional brief portfolios or journalistic reports provide sufficient opportunities and reference points for performance evaluation. It has to be attuned to the principles and criteria of the subject and to the students' individual development. Apart from the specific competencies of Physical Education and the core competencies of Global Development Education/ESD (which have been selected for the sample project), it is also about supra-disciplinary competencies. In the case of the suggested project it is e.g. about targeted cooperation and an increase in the students' reflective capacities.

The evaluation criteria are based on the subject-related and supra-disciplinary targets and requirements, but most of all on the attainment levels of the respective competency grid. Here not only the absolute level of the fulfilled requirement is relevant but also the individual learning progress.

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4.6   Vocational Education

Shaping global development within vocational education and training

(taken unchanged from the 1st edition 2007)*

Konrad Kutt, Heinrich Meyer, Barbara Toepfer

4.6.1   Introductory comments

Vocational education in Germany includes, aside from the 350 occupations learnt in the "dual system" of school and workplace training, vocational trainings with and without certificates (including vocational preparation courses, various specialised vocational schools, specialised technical schools and upper secondary schools, which also grant leaving certificates in general education at all levels), as well as further vocational training.

Against this background, it is not possible within the given task to take a detailed look at Global Development Education/ESD for a specific occupation, course of training or type of school. We have therefore defined overarching competencies of vocational education, as well as learning areas and key questions. These are meant to aid experts in creating new training regulations and framework curricula and to act as guide for vocational education teachers and trainers who implement them at vocational education and training (VET) schools and workplaces. Our goal is to design vocational education processes so that they enable learners to help shape global developments. This aims at developing competencies not only for the students' professional lives, but also for their personal and social ways of acting.[151]

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* Eight years after its first publication, this contribution needs to be partly revised. The field of vocational education is very complex and dynamic. In the last years, there were many new developments, but also shortcomings, particularly due to progressive globalisation and the lack of a comprehensive sustainability strategy (see the decision of the German Bundestag, 5.03.2015: http://dip21.bundestag.de/dip21/btd/18/041/1804188.pdf, 27.10.2016. The "Proposal for a research and implementation programme" presented in the first edition (Orientation Framework 2007) is still largely valid as basis for regulatory decisions. There are only a few pilot projects in which the programme was implemented; it has only marginally reached the means of standardising and regulating vocational training (see supplements to the bibliography, chapter 4.6.9). Hence, much still remains to be done in the context of the Global Action Programme "Education for Sustainable Development". The conceptual approach to strengthen the integration of Global Development Education, i.e. of globalisation proces-ses, into ESD, is very relevant for vocational education. More than one third of the 329 professions/vocations (2013) have been restructured in the last years, and some of them include first references to Global Development Education/ ESD or to sustainability. Studies and pilot projects show the implementation possibilities in schools and companies. Against the background of the principle of sustainable development the educational policy has principally recognised the importance to restructure this significant field of education (see Kutt 2013: http://inbak.de/files/bbne_im_spiegel_oeff._meinungen_2-13.pdf, 27.10.2016). Despite the growing significance of Global Development Education/ ESD we still do not have a standard position for the occupational profile "Global and Sustainable Development". In order to align and implement this position, the social partners, the authorities on the federal and state levels, the vocational training companies and the universities/colleges have to cooperate – last not least in the field of teacher training. An analytical overview of the current situation, based on an expert study for the BMZ in 2010 and on several research studies and decentral projects, could be the basis

[151] The term "global development" is more closely defined in chapter 1 and chapter 3.1–3.8, particularly 3.2. In chapter 4.7.3 the connection is made to environmental, social and economic sustainability in a VET context

The focal point of our analysis is initial vocational education, which presents a central challenge to furthering lifelong learning.

Vocational education in Germany is guided by occupational principles – the concrete occupational and workplace demands of various sectors. These principles form the basis for the definition of specific and overarching goals and competencies. Any concept that intends to integrate ideas related to Global Development Education/ESD into the theory and practice of vocational education must therefore be compatible with occupational developments and with the current realities of vocational teaching and training.

The following analysis is based on the goals for professional competencies that have formed since 1996 the basis for manuals to create curriculum frameworks of the Standing Conference of Ministers of Education and Cultural Affairs (KMK) for vocational education in schools and their coordination with federal regulations for recognised apprenticeship trades (KMK, 2000 edition).

The structure of the current model for the development of VET competencies is different from the core competencies model (see 3.2) used in general education. VET competencies bring together various competencies (specific skills, personal and social competencies as well as methodological and learning competencies) in a model of "complete (occupational) action" (planning, implementing, controlling, correcting, assessing) for curriculum development and implementation and which are obligatory for occupational programmes. It is not possible to deviate from this definition of competencies, which forms the basis of all curricula.

The Vocational Education working group therefore developed a concept for vocational education, entitled "Shaping global development within vocational education and training". This concept can be used for the creation of curricula for specific occupations and occupational programmes with integrated subjects and learning areas. It connects the core competencies of Global Development Education/ESD with the model of VET competencies.

In the following we assume that – at least during a transition period – Global Development Education/ESD competencies acquired at Secondary Level I, which VET competencies must build upon, will be rather heterogeneous.

Due to the innovative character for vocational education and training and limited regulations for creating curricula, section 4.6.8 contains suggestions for a research and implementation programme.

4.6.2   Goals of the concept "Shaping global development within Vocational Education"

Integrating Global Development Education/ESD into the comprehensive competencies of vocational education and training is a challenge for all VET educators. Objectives and contents related to global development have not yet been differentiated in the relevant preambles and are found only occasionally and in unspecific forms in some VET curricula.

The following concept describes VET-related competencies connected to the core competencies of Global Development Education/ESD in order to introduce aspects of globalisation found in vocational competencies into the curriculum development of individual training courses.

The aim is
·   to underline the importance of connections between general and professional competencies and competencies for global development in occupational activities
·   to create the preconditions necessary to define specific occupational competencies and contents on the basis of recommendations for a variety of sectors, in order to help integrate Global Development Education/ESD into individual occupational fields, occupations and VET programmes
·   to develop a practical programme for exploration and implementation that, in view of the constraints of VET curricular frameworks, includes all places of vocational learning and selected sectors and in particular all stakeholders responsible for VET programmes and their development. Best practice examples are to illustrate ways of integrating Global Development Education into VET.[152]
·   to demonstrate by a sample assignment (4.6.7) how a global development approach can be realised within the VET structure.

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[152] See chapter 4.6.8 and the contributions by Meyer and Toepfer 2004, p. 9–21, 31–54 and Jäger http://www.epiz-berlin.de/publikationen/, 27.10.2016 and www.dblernen.de, 27.10.2016

4.6.3 General considerations

Economic competitiveness, ecological compatibility, social responsibility and adherence to social standards as well as human rights are indispensable components of sustainable development. The global community agreed to work towards these goals at the Rio de Janeiro Earth Summit in 1992. In this context, education is a key task that includes all parts of society like businesses and non-government organisations.

Global Development Education/ESD includes questions of living and working together in and between economies and societies, taking into account differing stages of development and environmental, economic, social, political, cultural and communicative disparities. The challenges of globalisation affect all members of society.

The problems of globalisation necessitate particular efforts to ensure active occupational involvement in shaping global development. It is also important to design personal lifestyles and individual perspectives sustainably in times of leisure and unemployment. Vocational education and training faces a particular challenge in helping young people with lacklustre job prospects to develop these competencies.

Global Development Education/ESD can contribute to this aim, as it also deals with questions of getting along with each other and with relationships on the individual and workplace level from perspectives that receive little or no attention in the current curricular guidelines and recommendations.

The general and occupational mission of vocational education includes the fundamental pedagogical intention to develop the inclination to participate in shaping globalisation. It is, at its core, oriented towards the future and vaguely defined by "do something", to act. To ensure that this happens, a process must be started and supported, in which knowledge is continuously acquired and in which positions are taken, reflected and transformed into action.

The connection of occupational action to globalisation differs according to the perspective of the acting person. It is difficult to delineate exactly the effects of globalisation on different individuals' perception and utilization of space, time, and communication as well as culturally determined traditions, values and patterns of behaviour. Active involvement in global development is therefore highly dependent on intercultural communication. This makes competency in intercultural communication one of the decisive competencies – at work and in one's personal and social life. Furthermore, intercultural competency consists of fundamental skills, such as being able to shift perspectives and learn from other cultures. It is therefore an indispensable foundation for innovation and creative development. This is mirrored in educational standards and in all new curricula for institutions of general education. In the future, intercultural professional competency can and must build on this as an area of qualification.

Comprehensive acting competency in vocational education is, with respect to curricula, oriented towards business and working processes and, in accordance with current vocational didactics, primarily developed within active learning processes. The ability to shape global development must therefore be integrated into learning fields and learning settings. Active learning methods linked to the vocational competency areas *recognising, assessing, acting* are developed integratively as well as situationally when working in vocational learning fields and courses. Only in this way is it possible to realize the central goal of vocational education – of developing vocational acting competency including specific occupational competencies, human, personal and social competencies, as well as methodological and learning skills – with a focus on global aspects.[153]

[153] KMK 2000, p. 4; Bader 2004, p. 20 ff.

4.6.4 Competencies of Vocational Education in Global Development Education/ESD

In this section, ideas are introduced how to connect the core competencies of Global Development Education/ESD with Vocational Education competencies. As explained above, this is an initial aid only, that still needs to be integrated into a concept of vocational acting competency. This necessitates further research and development (see section 4.6.8).

In the left-hand column there are the core competencies of Global Development Education/ESD for Secondary Level I, which can be further developed in Vocational Education (As has already been mentioned, these core competencies still need to be systematically developed in Secondary Level I with the implementation of the Curriculum Framework). The vocational (partial) competencies listed in the right-hand column consist of competency clusters that must be further specified. They have been supplemented by content aspects to point out in which way issues of globalisation and sustainable development can be dealt with in Vocational Education. These proposals are meant to create as much room as possible for the construction of school curricula and profiles.
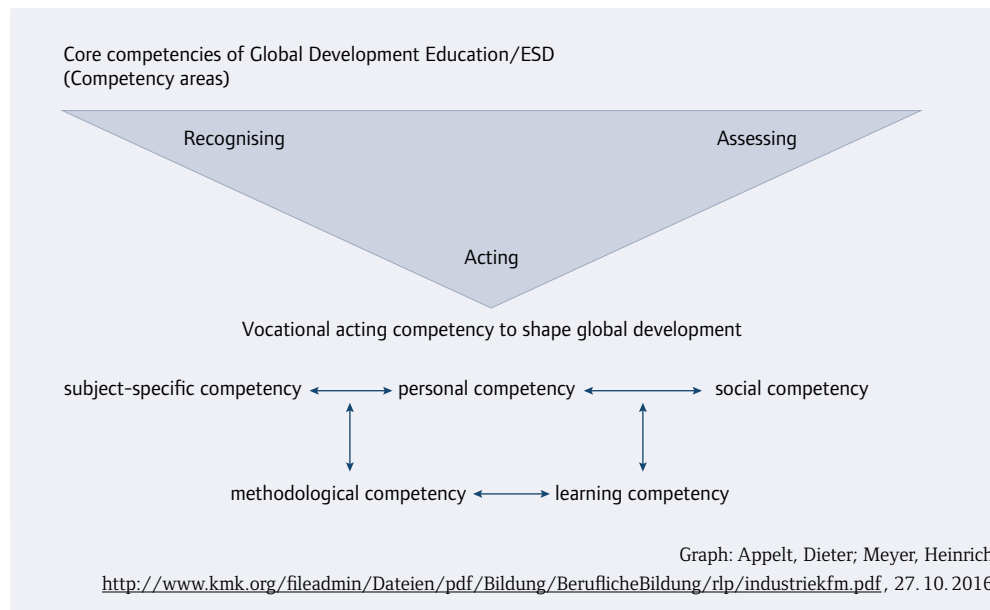
The trainees/students are able to (…)

	Core competencies	VET competencies
		The trainees/students are able to (…)
Recognising	1. **Acquisition and processing of information** (…) acquire information on issues of globalisation and development and process it topic-relatedly.	(…) *acquire* information (with limited support) on questions of globalisation from suitable media that · are related to the learning targets of specific learning fields · are related to actions of vocational qualification · illustrate sector-specific situations in different countries/ regions of the world · allow the comparison of aspects such as conditions of production, structures and characteristics of Vocational Education, professional work, and decisive factors of different employment and economic systems. (…) *abstract* from the collected information significant statements with the help of key questions and assignments on issues of globalisation, applying suitable methods of text analysis and vocation related studies.
	2. **Recognising diversity** (…) recognise the socio-cultural and natural diversity in the one world.	(…) *identify* and compare in their own occupation and working world as well as in that of other countries and regions · by considering cultural and/or social/economic/political/ environmental/societal characteristics.
	3. **Analysis of global change** (…) analyse processes of globalisation and development by using the concept of sustainable development.	· (…) *differentiate* dimensions of global change in occupations and vocational problems. · (…) *identify* related changes in occupational activities, economic interdependencies, conflicts and political influence.
	4. **Differentiation between levels of action** (…) recognise levels of action – from the individual to the global level – and their respective function for development processes.	· (…) *identify* levels of action in occupation and labour – from the individual to the global – and illustrate them by examples. · (…) *describe* options of sustainable development processes on chosen levels of action.

	Core competencies	VET competencies
		The trainees/students are able to (…)
Asessing	5. **Change of perspectives and empathy** (…) realise, appreciate, and reflect upon own and others' values, and their signi-ficance for life.	· *(…) change* perspectives to include people, cultures, religions and ethnic identities affected by globalisation, especially in relation to occupational and economic situations · *(…) identify themselves* with behaviour patterns of others in occupational situations and explain them in relation to relevant social and economic structures · *(…) interpret* differences in trade, cooperation and exchange relations between countries, economic regions and companies in light of the working and business processes in occupations and in relation to occupational activity in connection with supply, production and sale as well as consumption and use of goods.
	6. **Critical reflection and comment** (…) comment on issues of globalisation and development by critically reflecting and orientating at the international consensus, at the principle of sustainable development and at human rights.	· *(…) reflect* on the visions and interests of political and economic decision-makers and power brokers, on possible future scenarios of global development and relate these to the guiding principle of sustainable development. · *(…) analyse* and *assess* the options of individuals and groups to shape the organization of the occupational sector, of their work and company, of technical, economic and social systems as well as their employability through lifelong learning. · *(…) comment* in a well-founded way on democratic control of economic power and options of co-determination for employees.
	7. **Evaluation of development projects** (…) work out approaches to evaluate development projects (here and in other parts of the world), with respect to diverse interests and general conditions, and come to self-reliant conclusions.	· *(…) evaluate* projects of economic cooperation in doing so · *(…) take into* account various interest groups and starting positions as well as the normative reference of people involved and the political framework.

	Core competencies	VET competencies
		The trainees/students are able to (…)
Acting	**8. Solidarity and shared responsibility** (…) realise areas of personal responsibility for humans and the environment, and accept the respective challenge.	• *(…) determine* their personal co-responsibility in areas of occupational action. • *(…) develop* alternative activities and scenarios and test these either as role play in their learning group or in their training company/school.
	9. Understanding and conflict resolution (…) contribute to overcoming socio-cultural barriers and self-interest by communicating and cooperating, and contribute to conflict resolutions.	• *(…) develop* strategies and use methods of intercultural learning to overcome barriers and resolve conflicts that often arise in interpersonal communication within and between companies due to different cultural backgrounds. • *(…) try out* and stabilize these strategies at the workplace. • *(…) reflect* on these situations with their classmates/colleagues.
	10. Ability to act in times of global change (…) ensure the ability to act socially in times of global change, most of all in personal and professional fields, by openness and readiness to innovate as well as by an appropriate reduction of complexity, and bear open situations.	• *(…) analyse, develop and consolidate* their openness and willingness to innovate in occupational contexts and develop alternative activities for scenarios related to their work. • *(…) be flexible* with their ideas and competencies in light of the unpredictability of the future. • *(…) accept* failure and uncertainty with equanimity.
	11. Participation und active involvement Students are able and willing, based on their autonomous decision, to pursue objectives of sustainable development in private, school and professional fields, and to participate in their implementation in society and politics.	• *They are ready* to involve themselves in chosen activities according to their own convictions and priorities and work towards societal, private and occupational goals in line with the principle of sustainable development.

4.6.5 The core competencies of Global Development Education/ESD and the model of vocational acting competency

Core competencies of Global Development Education/ESD
(Competency areas)

Recognising

Assessing

Acting

Vocational acting competency to shape global development

subject-specific competency ←→ personal competency ←→ social competency

methodological competency ←→ learning competency

Graph: Appelt, Dieter; Meyer, Heinrich
http://www.kmk.org/fileadmin/Dateien/pdf/Bildung/BeruflicheBildung/rlp/industriekfm.pdf, 27.10.2016

Fig. 12: Connection of the competency models

This comparative chart may help to understand that integrating the core competencies of Global Development Education/ESD into general education means to divide competencies into three interrelated areas: *Recognising – Assessing – Acting.* In the model of vocational competencies partial competencies are always connected to actions and must be developed in learning scenarios holistically to enable concrete and circumspect vocational action.

If within this Curriculum Framework we use the general core competencies of Global Development Education/ESD as reference, we do so knowing that the design and curricular implementation of vocational ordinances should be guided by the comprehensive vocational competency "active involvement in global development". This includes the closely related partial competencies – subject-specific competency, personal competency and social competency – in which methodological and learning competencies can be developed. Developing these competencies is the goal of the curricular and process-oriented design of trainings in educational courses. This in turn generates corresponding content and topics, which can be integrated into the learning fields of vocational education and subject curricula as well as further training programmes.

4.6.6   Thematic areas and guiding principles for the competency-oriented evaluation/revision of framework curricula, vocational education regulations and further vocational training programmes

Thematic areas: Shaping global development within vocational education
In the following, the focus is on building a comprehensive competency of shaping development, which will be created by vocational competencies acquired by addressing relevant topics and contents. These proposals are meant for all sites where learning takes place – schools, company and supra-company training centres, as well as institutions of further training. They are geared towards specific workflows and business processes of recognised training occupations/companies/sectors and towards the trainees. These competencies have already been defined as competency clusters in section 4.6.4.

The following topics are suggested to acquire this competency of actively shaping global development:
1. Sustainability and global development on the job:
   a) use of resources/ecologically compatible production, quality management and auditing
   b) interconnections between production and consumption
   c) working and organisational conditions, vocational education and social standards in the sector, in Germany, in the EU and other parts of the world, for example in Arabic linguistic and cultural areas
   d) multicultural makeup of employee/client structure
   e) company goals/company and entreprise organisation/culture in Germany, the EU and other parts of the world

2. (Global) economic interconnections
   f) of supply and sale markets for goods and services including the use of natural resources
   g) direct and indirect (digital) communication with clients and suppliers from differing economic, social, political, cultural and ethnic/religious backgrounds

3. Globalisation of production and competition
   h) information structures
   i) interconnection of companies/relocation of workplaces
   j) competition structures, economic, financial and political power
   k) monetary economy and company policy (shareholder value vs sustainability)

4. Political, social and legal framework conditions of business and vocational activity
   l) economic and regulatory, socio-political, legal and technical norms of workplaces and the economy/economic and societal activities of national and international institutions and associations
   m) economic, environmental, social and political consequences of shaping economy and work

These thematic areas need to be concretised for specific occupations and sectors and must be integrated into learning fields and learning situations.

Guiding questions for the evaluation/revision of framework curricula, training regulations and courses of further education
Framework curricula and training regulations of the VET dual system demand the development of a comprehensive vocational acting competency consisting of the specific occupational, personal and social competencies described above.

However, analyses of framework curricula for vocational education in schools for some occupations (for example in gastronomy: Meyer and Toepfer 2004, 39 ff.) show that on the learning field level, occupational goals and contents are dominant. Almost no attention is paid to developing comprehensive occupational and personal or social competencies; neither sustainability nor global development is adequately covered. This also holds true for vocational education that takes place exclusively at schools and for courses of further vocational training. Framework curricula for in-house trainings are limited to lists of skills and knowledge. Nevertheless, in learning situations geared towards specific occupations, it is possible to include topics and content relevant to dimensions of competency, including aspects related to global development. However, supplementary education must be provided by teachers and trainers if competencies in Global Development Education/ESD are to be acquired.

This strategy for the assessment and revision of framework curricula and training regulations is compatible with the educational mandate of VET schools as well as with on-the-job trainings. In general, vocational education schools should "enable the fulfilment of occupational tasks and help shape the working world and society in an environmentally and socially responsible manner."[154]

The following guiding questions can support the assessment and revision of framework curricula and training regulations, as well as courses of vocational education, to include the professional competency of shaping global development:

How is – for a specific occupation/a course of vocational education – a competency-oriented development concept for self-reliant occupational, private and social acting within sustainable educational structures understood?
- Which occupational goals and topics are defined that relate to global development, and what are their parameters?
- Are the goals described as competencies to be developed and if so, how and which ones? Are goals open and apt to reflect new developments? How can they be evaluated?
- How can the learner participation in the design, planning, implementation and evaluation of processes be anchored as a constitutive principle?
- (How) is the opening of the company, school and classroom to non-government organisations, stakeholders and institutions of development cooperation defined in relation to sustainable models of company action? Which changes/additions are necessary?

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[154] KMK 2000, handouts, p. 8; KMK 1991; see Meyer and Toepfer 2004, p. 41 ff.; Bader 2004, p. 13 ff.

How can specific learning fields take Global Development Education/ESD into account?

How and to what extent can learning fields integrate the competencies and topics of Global Development Education/ESD? Which contribution can – sufficiently complex –action and learning fields of specific occupations or vocational courses make to develop vocational, private and societal learning situations that help to shape global development?

- How are the competencies necessary to shaping global development related to action in occupational contexts?
- Which experiences and convictions of companies – for example codes of conduct or international initiatives such as the Global Compact – can be integrated?
- How can workflows and business processes in the areas of supply, production and sales be looked at, both generally and from an economic as well as environmental, social and political point of view? Does it make sense to concentrate on individual learning fields that allow for exemplary design of specific situations? Which (occupational) topics lend themselves to the development of these competencies? Which links to the private and societal sphere can be integrated? How does the aspiration level take the learners' heterogeneous social and cultural conditions and situations at school into account?

How are openness to making changes and individual learning encouraged?

Which options for open learning processes does the structure of competency-oriented goals and contents allow in the respective learning field? Which options exist/are necessary to deepen the learning process in further education or in connection with supplementary qualifications?

How is self-determined willingness and ability

- encouraged to strengthen forward-looking, systemic, interconnected thinking, change of perspectives and creativity?
- supported to realise cultural and religious diversity that affects occupational as well as private and social acting?
- systematically developed for intercultural, value-oriented communication and cooperation? In how far do the media used in the learning process support multiple perspectives and different socio-cultural perceptions?

How do specific learning fields deal with the complexity of global challenges?

Do the learning fields support a competency-oriented (sufficiently complex) structure for the development of learning situations that make holistic and active vocational education processes possible?

- How do the required connections integrate issues of global development?
- How can economic, ecological, social and political dimensions of sustainable action be taken into account for specific target groups?
- How is participation encouraged in shaping work (for example in an economic, ecological, social and organisational way) even in insecure jobs, for certain workplaces and sectors, and in national and international contexts?
- Which impulses do the learning fields give for acting in a value-oriented, humane and social manner, showing solidarity and commitment for global justice?

How are uncertainty and contradictions taken into account?

Which questions must be dealt with (in content and method) that are relevant to personal life and career plans, involvement in (global) society, or individual dilemmas, that result from the discrepancy between ethical convictions and business necessities?

- How can potential conflicts be taken into consideration (e.g. violations of social standards and human rights, excessive environmental impact, child labour)?
- How can these be dealt with in an open-ended manner consistent with active learning processes?
- How, based on a company's existing agreements and principles, can it be shown that sustainable economic and labour practices are recognised nationally and internationally and that they offer economic advantages?

How are target groups differentiated according to performance level and migration background?

- How should VET target groups be differentiated in the name of expediency?
- How can we differentiate in Global Development Education/ESD between high and low performance learners in vocational education?
- How can competencies and sector-specific content and methods be geared towards target groups of different migration background?
- How is openness to regional particularities ensured when global development is mirrored in the microcosm of the school or training company, e.g. by multicultural employees, clients, suppliers, learning communities or neighbourhoods?
- What contingencies are made for the fact that vocational qualification and training does not always lead to employment, and that prospects need to be developed for (temporary) unemployment and other career setbacks?

How is agreement with and coordination of regulations organised?

How are vocational education and training regulations (framework and specific curricula) coordinated with respect to shaping global development?

- How are vocational framework curricula and subject curricula (Languages, Mathematics, Economics/Politics/Citizenship, Religion/Ethics, PE/Sports, etc.) coordinated with respect to competencies and content? Can this be implemented by structures of vocational schools?
- How are framework and specific curricula coordinated with respect to Global Development Education/ESD?
- Which references to cooperation between sites of learning (schools, companies, training centres, places of real encounter, etc.) are possible and desired? Which school and training structures are these based on?
- How are training and further education coordinated, which supplementary qualifications are possible and sensible, and which core competencies should they build on?

4.6.7   Sample assignment: "Welcome to the ONE WORLD HOTEL" [155]

(This sample assignment for the dual system of training for hotel careers, particularly for hotel and restaurant specialists, was tested in Hesse vocational schools.)

Information for teachers
This audio play illustrates how principles of sustainability can be integrated into the hotel and restaurant industry in certain aspects of marketing as well as other areas of corporate policy, e.g. personnel policy. The following is an active learning model that teachers and trainees can draw on when creating and developing learning situations for a great number of learning fields relevant to hotel and restaurant careers.

Economies around the globe orient their development at growth figures and growth prognoses. Internally, companies work with figures that reflect turnover, earnings, savings and profitability. Trainees learn to calculate and interpret these data at vocational schools. However, the question of the sustainability of corporate decisions in the context of global development is seldom posed. More popular – and often easier – are short-term and mid-term strategies, such as orientation towards shareholder value or stakeholder value, or outsourcing, which initially promise success and lower production costs, particularly personnel costs. At the same time, companies complain about the indirect costs of high unemployment and low domestic consumption. To resolve this contradiction, we need sustainable development strategies for our society that balance corporate and societal well-being, i.e. the relationship of economic, environmental and Social Affairs.

Norms and standards for hotels and restaurants are already widespread and well-known. What is perhaps new is their relevance in the context of sustainability; working sustainably is becoming synonymous with looking towards the future. Environmental protection, low environmental impact and the efficient use of resources have become second nature to many providers and consumers of hotel and restaurant services. But does this already fulfil the requirements of "sustainable economic management" of vocational and business activity that contributes to local, regional and global development and that aids people on the "dark side" of these developments? The problems in the service sector after the Eastern Expansion of the European Union provide a vivid example of how difficult it is to steer labour market developments or to restrict them to the local or regional level.

Despite various regulations, laws and voluntary commitments, governments around the world ignore or circumvent environmental, economic and social standards. Some companies enhance their standing with the public through established labels meant to guarantee adherence to these standards and simultaneously violate them. Some tour operators, for example, offer mass tourism and sex tourism, tacitly accepting the consequences for the coun-

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[155] Authors: Prof. Dr. Heinrich Meyer and Barbara Toepfer; see also Meyer, H.; Toepfer, B. (Eds.2004): Bildung für eine nachhaltige Entwicklung in den Gastronomie- und Ernährungsberufen – Herausforderungen, Konzepte und Unterrichtsbeispiele. Hochschultage Berufliche Bildung 2004, Bielefeld

tries of destination. At the same time, the same tour operators often also advertise "gentle or green tourism".[156] These occupational realities depend upon employees who are willing and able to uphold these contradictions.

The United Nations Global Compact is meant to strengthen the Agenda 21, the World Summit for Social Development Copenhagen 1995, the International Labour Organisation (ILO) Declaration on Fundamental Principles and Rights at Work and the General Declaration of Human Rights. Knowing about and studying the Global Compact is important for trainees to form their own opinions. It should be studied in vocational education – not only in Economics/Politics, but also as an integral component of Global Development Education/ESD whenever trainees need to understand or design corporate decision-making processes. Competencies of implementing the Global Compact in companies necessitate the integration of (global) economic, social and ecological factors, as defined by Agenda 21, in corporate decision-making processes. This area provides excellent opportunities for cooperation between non-governmental organisations and schools, using the example of economic cooperation projects to illustrate how processes can be designed in a socially and environmentally compatible manner, from the creation of the goods and services rendered all the way to their sale. In 2005, the UN declared the Decade of Education for Global Development. The decade's educational goals are also targeted at vocational education and training.

An audio play for classroom use
This audio play makes trainees aware of the connections delineated in the goals listed below and can lead to initial thoughts about elements of a hotel concept based on sustainability and shaping global development. Further exercises are possible that deal with individual aspects in greater detail, e.g.:
· elements of culture-specific care for guests and knowledge about lifestyles and consumption habits of specific groups of guests
· equipment and furnishing of guestrooms according to sustainability criteria
· cost-benefit analysis of fair trade products
· multicultural employees and human resource development

These aspects can be related to learning fields such as (at the basic level): desserts, special offers, regional domestic and foreign cuisine, working in the service sector and, at a higher, more specific level, sales and service in restaurants, marketing, housekeeping or storage. This knowledge and respective skills can be honed in the third year of vocational training, for example in the learning fields working in reception, leading a housekeeping crew, managing a station, or organising events.

The audio play can be used to develop and strengthen the following competencies of Global Development Education/ESD.[157]

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[156] http://www.viabono.de, 27.10.2016
[157] The connections to core competencies of Global Development Education/ESD that are also competencies for vocational education are in parentheses (see chapter 4.6.4)

The trainees (…)

1. (…) get acquainted with alternatives and options in the fields of designing and marketing hotel and restaurant products and services (marketing policy) (2)
2. (…) assess the use of natural products in guestrooms (2, 6)
3. (…) recognise and form an opinion on the reasons for designing guestrooms by making allowances for guests' culture and countries of origin (2, 6)
4. (…) recognise and assess the significance of efficient energy use in the context of sustainable development (2, 3, 6)
5. (…) recognise and assess the use of ecologically sound goods and fair trade products as an element of a tourist company's marketing strategy (2, 8, 9)
6. (…) develop strategies for the further development of goods and services and for personnel development in a multicultural environment (9, 10, 11)
7. (…) further develop the fictional concept by using sustainability criteria or apply them to their workplace (11)
8. (…) recognise the importance of a cooperation between places of vocational education and further training (8)

Active involvement in development is both an implicit and explicit goal of vocational education. The comprehensive acting competency to be developed – understood as the willingness and ability of the individual to act in a thoughtful, socially responsible way in social, occupational or private situations – also takes global developments and work-related phenomena into account.

The audio play: "Welcome to the ONE WORLD HOTEL"

Allocate roles and read aloud.

D: Director, Mme. Bonnard
M: Head of marketing, Ms. Scheufler
H: Head of human resources, Mr. Kusumoto

Scene: a fictional client meeting between hotel management and the board of the company "Laptop etcetera", who are going to hold a conference in the hotel with their Japanese business partners. The company wants to learn more about the One World Hotel corporate concept for future conferences and have asked for a short presentation.

D: Ladies and gentlemen, our company is called the One World Hotel because our corporate philosophy is based on the principles of sustainability, on thinking internationally and appreciating cultural diversity. This is the atmosphere we offer to our guests, a flair and sense of well-being that is looking for equals in the hotel industry. The individual needs and lifestyles of our guests are our primary focus. Our goal is to bring people and nature in tune with one another. This is particularly important for business travellers, who are dependent on this inner balance to keep up their health and their performance.

Let me begin with our interior design. All furniture in the reception area, the guest rooms, the restaurant and the seminar rooms is made exclusively of domestic wood such as birch, oak, beech and spruce.

H: At our hotel, we place great value on our international team, which we have put together as a conscious choice. This allows our staff to relate to guests with an openness that is otherwise difficult to establish. Of course we all carry clichés and prejudices around with us – this is normal – but at our company, we discuss them in quality control talks and time and again we are surprised by how differently each of us sees people and situations. Since our staff is quite sensitive to the perspectives of others and they themselves come from a wide variety of cultural backgrounds, they are finely attuned to fulfilling the unspoken wishes of our guests.

D: It is very important to us that our staff practise mutual respect and appreciation. I have worked in the hotel industry for twenty-five years and I know that this is not always the case. To ensure this, Mr. Kusomoto is responsible for in-house intercultural trainings as one element of human resource development.

H: I'd like to add one thing about our corporate philosophy – our choice of staff and our product policy are all part of our company policy, which we also franchise.

D: We have known from the time that you made your booking that you will be receiving Japanese business partners in the afternoon. You have already spoken extensively with our Japanese waiter, Mr. Suwaki, about the colour concept for the meeting room, the choice of food and drink and your options for an enjoyable evening in our home.

M: You can of course also go directly to your rooms to prepare for your upcoming negotiations. Perhaps you would like to relax. You can take a refreshing shower with bergamot body gel from The Body Shop, a green product made in Italy. You can rejuvenate yourself with a cup of fair trade tea or coffee – you will find a small variety of hot drinks in your room along with mugs and an electric kettle.

M: In your room, you will come into contact almost exclusively with materials produced under environmentally faultless conditions – as far as we are able to say. All fabrics are of cotton, linen or silk. Some of our inventory has been made in cooperation with small companies in Mozambique and Kenya. In our contracts with these companies, we set agreements for all details of product quality. They deliver directly to us and they calculate prices to allow for the financing of their social services, particularly schools and health stations. Our delivery contracts run for at least three years, so that our partners are able to build up their companies. When the contract ends, they take over their own marketing and gain new clients, usually however remaining one of our suppliers. You can also read more about our suppliers and the projects you are supporting during your stay at the One World Hotel; a binder with more information can be found in every guest room.

D: By the way, our human resources policy provides us with reliable insight into what we need to do to create the optimum conditions for your business negotiations. We have arranged for a dinner with regional flair and, as it is cooked on a stone, Asian elements. You thus experience cultural compromise in your choice of food and drink; they exhibit your own characteristic style, but do not embarrass your guests or make them feel estranged.

M: In some cases, we even call upon the help of consulates and foreign trade missions to get the information we need. For yourself and your guests, we have arranged for a tea ceremony in the late evening to be held in the meeting room. We will provide drinks and entertainment afterwards, both of which are important when building good business relations with the Japanese.

Most of the food in our restaurant is organic, usually from regional vegetable and fruit farmers, juice producers and beekeepers. We make sure our butchers and bakers process their meat carefully and that all grain is from certified farms. We buy our milk directly from a dairy farmer in the Taunus. Our delivery contracts are usually long-term and contain fixed prices – if we're not satisfied with the quality, we talk to our suppliers. Since we have decided upon set prices over a long period of time, our suppliers need not worry that we're going to push prices down. In exchange, we insist upon environmental standards and high quality, which demands high performance of our suppliers. If we have complaints and the supplier is not able to meet our expectations, we cancel the contract. But this rarely happens. We have found that it pays to make long-term contracts with suppliers.

D: At our breakfast buffet, you won't find any eggs kept warm on chafing dishes, individually packaged pats of butter or plastic yogurt containers. We have a relatively small selection of breakfast items – fair trade tea, coffee and chocolate; seasonal juice from local suppliers and orange juice from a Spanish cooperative; bread and rolls made from organic grain; re-

gional jams, marmalades and fair trade honey; two kinds of cheese from our dairy; two different cold cuts and soft-boiled organic eggs – all available buffet style. We always only put out small amounts and prefer to add more when needed, creating as little waste as possible. Of course we're always ready to fulfil the special wishes of our guests should they prefer scrambled eggs or an American breakfast, for example, or have special dietary needs.

M: You have probably already noticed that our tables are all set differently – we do this in the evening as well. We buy our tablecloths and tableware from different Latin American cooperatives that are still growing. We're therefore not able to provide a uniform décor, and occasionally supply shortfalls occur. But when you know who has made the plates, cups and glasses, this will probably no longer bother you. In fact our guests – many of whom are now regulars – tell us that these minor shortcomings and inconsistencies are a "trademark" of our hotel, and that they enjoy the plentiful colours, abundant decoration and small differences.

D: Naturally, our trainees and staff have also been trained in this area. They are able to provide information on the origin and production of our inventory and support the One World Hotel corporate philosophy. We do also have guests who are not interested, but many of them read the product information on the small table cards and ask more questions.

H: Our trainees identify wholly with our hotel – in contrast to many other trainees, they feel valued during their training and are able to develop their skills to their full extent. But not only that – after all, they chose to work with us and we of course chose to work with them – they want to do more than to work in just any company. The One World Hotel gives them the opportunity to live their convictions. This is not to say that our philosophy is attractive to all young people, but you would be surprised to know how many applications we are forced to turn down. By the way, no small number of our trainees go on to become franchisees with their own family businesses.

M: Now just one word about our price system. Of course organic and fair trade products are often more expensive than is customary. On the other hand, since we mostly use seasonal products from the region, we are able to avoid high costs for imported food and luxury goods, such as strawberries in winter or exotic fruits used only to garnish plates and platters. Our wine and liquor menu is also small, which keeps our storage costs down.

By selling licenses to franchisees but doing all or some of their bookkeeping and controlling, payroll accounting and marketing ourselves, we are able to perform both our and their in-house services economically, at the same time optimising workflows and the use of IT, which also saves us considerable costs. This allows us to offer you our services at prices similar to those of other locations and facilities of the branch.

D: Should you be looking to stay in Hesse again, we can heartily recommend the One World Hotels in Kassel, Marburg, Offenbach, Wiesbaden and Bad Hersfeld. All of these companies share our corporate philosophy.

We wish you a pleasant and successful stay.

Global Compact – an exceptional corporate initiative
The Global Compact was introduced in January 1999 in a speech at the World Economic Forum in Davos. At the time, Kofi Annan called upon economic leaders across the globe to work towards laying social and environmental cornerstones to support a new global economy and to ensure that globalisation helps all the people of our world.

Now, far more than 3,500 companies and organisations from around the world have become members, including 83 German companies such as Allianz Gruppe, BASF, Bayer, BMW, DaimlerChrysler, Deutsche Bank, Deutsche Telekom, Gerling Group, Henkel, Lufthansa, SAP, Otto Group, and Volkswagen AG, as well as institutions and associations from the cities of Berlin and Nuremberg.[158]

The Global Compact is based on ten principles that members commit to upholding and supporting.

Human rights:
Principle 1:
Businesses should support and respect the protection of internationally proclaimed human rights in their sphere of influence, and

Principle 2:
make sure they do not become accomplice in human rights abuses.

Labour Standards
Principle 3:
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining as well as

Principle 4:
the elimination of all forms of forced and compulsory labour,

Principle 5:
uphold the effective abolition of child labour; and

Principle 6:
the elimination of discrimination with respect to employment and occupation.

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[158] http://www.gtz.de/de/leistungsangebote/12279.htm, 27. 10. 2016

Environment protection

Principle 7:

Businesses should approach environmental challenges carefully,

Principle 8:

undertake initiatives to promote greater environmental responsibility, and

Principle 9:

encourage the development and diffusion of environmentally friendly technologies.

Signatories should publish proofs of their business activities for their commitment to the Global Compact on a website.[159]

The Foreign Office also refers to the importance of the Global Compact in the context of its human rights policy.

Assignments

1. Analyse the audio play and the Global Compact and respond to the following key questions:
   - What are the elements of the One World Hotel philosophy and what are the main differences to the usual concepts followed by German hotels/of your place of training?
   - Which Global Compact principles does the One World Hotel take into account? Which aspects of the Global Compact are important to you personally? How would you work towards realising them in your company? What benefits would the company get by adhering to these principles?

2. Which aspects touched upon in the One World Hotel would you like to learn more about? Develop ideas on questions to ask and how to get more information.

3. In Germany, there is a business association "kompakt". Could this be an "umbrella" for a hotel or restaurant? Please research and comment.

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[159] www.unglobalcompact.org, 27.10.2016

4.6.8   Proposal for a research and implementation programme

Fundamental considerations
There are two main aspects to consider when studying the meaning and chances of implementing a framework for Global Development Education/ESD in the VET sector. They result from the socio-political demands grounded in educational theory and the demands of the economy and the employment system. In both of these the increasing need for global development competencies can be seen. In the dual system of vocational education and training, attention must be paid to:
· the regulatory level (vocational training regulations and framework curricula) and
· the implementation level.

As experience with developing or revising VET regulations has shown, both aspects need to be considered simultaneously, or at least as interdependent entities. Vocational training regulations list the typical occupational skills, knowledge and abilities in concise form; framework curricula contain guidelines for imparting these abilities with respect to subject matter and timeframe.

These regulations are minimum standards, which cannot be ignored if training is to be up-to-date and at a high level. They describe existing standards for the state of training today, but leave enough room to integrate future, unforeseeable developments into actual trainings. In the past few years, occupations that are more open and that can be designed flexibly have arisen, so-called "open training occupations" that are for example characterised by a variety of choices depending on the needs of the company or the aptitude of the individual. At the same time, initial training and further education are coming closer together, particularly since the idea of supplementary qualifications is gaining ground.

In general, the social partners, employer and employee federations, and the Federal Government (usually the Ministry of Education and the Ministry of Economics) are responsible for the reform of occupations and therefore also for integration of new competencies and contents. The Federal Institution for Vocational Education and Training (BIBB) is the expert counsel responsible for helping these groups in their consensus-finding process. Training regulations for businesses are coordinated with the relevant framework curricula for vocational schools. Occasionally, before new training regulations are written, research is done, for example in case studies, problem or task analyses.

A reform process will not be begun to meet just one challenge, e.g. integrating Global Development Education/ESD. This was different when environmental protection was integrated into vocational education, which was assigned a benchmark character. Thus the social partners alone were able to push through the reform of training regulations solely because of environmental concerns.

To integrate sustainability and the shaping of global development into VET, reforms that will come up in any case, will have to awaited and taken advantage of. Since there are no requirement specifications for competencies and related contents, it is up to the balance of powers of educational policy makers and the consciousness of the social partners, the BIBB

and the KMK to decide whether and how this challenge is taken up and to come to an agreement on defining competencies and content in this area. As a rule there will be a number of occupational, technological and structural whishes for change Global Development Education/ESD will have to comply with.

Recent experiences with integrating sustainability into vocational education have been rather sobering. They show how difficult it is to connect it to learning goals and content as well as to workflows and business processes. Objections are made on aspects as justiciability, test ability in intermediate and final exams, dangers for the ability of companies to provide training, difficulties to have these goals implemented by all entreprises, and to maintaining employability.

In the July 2002 reform of the training for industrial clerks, the regulation on the structure and goals of the training (§ 3) states, "the elements of the occupational profile as delineated in § 4, para. 1, no. 1–4 must be taught in a cross-curricular manner throughout the training period and include the aspect of sustainability". At least the word sustainability appears here. There is no further reference to sustainability or Global Development Education/ESD in other occupational profiles. The framework curriculum for industrial clerks leaves this goal relatively open: "orientation towards business processes shall be supplemented by an analysis of the numerous interconnections of markets, the national economy and society. Goals should be defined to embrace the fundamentals of sustainable, environmental, social and economic development" (KMK 2002).

Vocational schools, in their general and sector-specific courses, generally do deal with key issues of our time such as "(…) peaceful coexistence of human beings, peoples and cultures in one world while upholding cultural identity, preserving the natural basis of existence and securing human rights" (KMK 1991).

Reasons for the programme

BIBB's experience with integrating innovative elements, initially controversial in society, has shown that it is best when participative strategies, stakeholder conferences, pilot programmes, best practice examples, etc. lay a path for examination and concretisation that leads to more acceptance, in-depth knowledge and experiences that show it is practicable.

Pilot programmes or similar tests can, in chosen strategic sectors and suitable vocational fields, show how the requirements of Global Development Education/ESD can be implemented so that the competencies acquired join with concrete occupational and business effects. These programmes either help to create legitimacy and acceptance for future educational policy decisions and pave the way for consensus on training regulations or they can, after decisions have been made, help to support the implementation of these regulations, test them and put them into practice.

The priority for projects that foster vocational training for sustainable development initiated by BIPP – including the history of the dialogue that led to the development of this programme (2001–2003) – is a good example of the state taking an activating role as moderator rather than immediately deciding on new regulations.

Programme focal points

The Vocational Education working group in this joint KMK-BMZ project proposes, in the light of a diversity of interests, resistance and problems to be expected to set up a hands-on preparation and implementation programme for Global Development Education/ESD. The competencies acquired in this learning area are needed from an economic and labour perspective, in view of opening markets and increasing economic interdependencies in almost all sectors.

This preparation and implementation programme could focus on the following aspects:
- Dialogue, exploration, acceptance and future prospects
  Hold five to seven stakeholder conferences for different sectors and branches with the participation of all VET-actors in institutions, responsible authorities and associations. This includes in particular representatives of VET in schools and businesses, trade associations, trade unions and academics. For each sector, 3–5 working groups should define the (specific) competencies and thematic areas/key issues of Global Development Education/ESD, set requirements, analyse the status quo, state the conditions needed for action, research to be undertaken, projects to be funded, etc.

  These stakeholder conferences would initiate a process of participative dialogue to explore existing needs and methods of implementation; a process focused on raising consciousness and gaining acceptance as well as on critical reflection and creative proposals.

- Good practice
  Gathering good practice examples, documenting and publishing them on the web The work begun by BIBB, EPIZ and others should be continued and integrated into the Good Practice Agency set up by the BIBB together with the DBU. Criteria and a uniform presentation are to be developed for these examples. They will be accompanied by active transfer strategies, so that learning from best practice examples catches on. Attempts at Global Development Education/ESD thus receive a human face with individual success stories at a central, permanent address.

- Pilot projects
  Based on experience gleaned from the dialogue phase and the collection of good practice examples, pilot project-like trials and developments will be initiated in innovative areas that can easily be transferred. Among these are:
  – further education modules for teachers and trainers
  – concepts to integrate Global Development Education/ESD into the training ofVET teachers
  – practical implementation methods, development of media
  – development and testing of assignments and tasks, collection of cases, etc.
  – development and testing a cross-occupational guide (e.g. a handbook) to increase sensitivity and foster qualification in shaping globalisation in VET
  – development of a concept for deployment abroad and internships, for exchange programmes, international meetings and cooperations including their evaluation.

- Additional qualifications
  Develop modules for cross-occupational or sector-specific additional qualifications, e.g. for tourism specialists: culture-specific and cross-cultural competencies for working in specific regions on the African continent. Additional qualifications such as this could be certified, used flexibly and be acquired during the training period.

- Research
  Vocational education research on "VET in times of globalisation", on the topics such as:
  – opportunities and limits for shaping global development on the job
  – scientific foundation and specification of VET competencies and identification of intersections with competencies in general education
  – research on learning goals: dealing with inconsistency and contradictions
  – analyses of qualification requirements and on tasks confronted with foreignness and globalisation
  – development of a respective cross-sector holistic VET concept

- Scientific support
  The programme includes academic consultation on documentation, counselling, service, evaluation and transfer.

4.6.9   Bibliography

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5 Global Development Education/ESD – a task for the whole school

Reiner Mathar

For children and adolescents, globalisation includes more and more areas of life, their every-day life is influenced by globally produced commodities. Every day, the media offer insight into other parts of the world and into the global change. School by itself is a microcosm of this transformation, and it is determined by diversity. Children's and young people's future work and life are also subject to global interdependencies in business, politics, environment and society, which all take influence on their life. In order to face these challenges while keeping in mind the objectives of sustainable development, education is faced with increasing expectations.

Apart from the **requirements of school law**, educational plans/curricula, educational standards and the recommendations of the Curriculum Framework *Education for Sustainable Development*, additional documents and resolutions are important for planning this learning area (see chapter 1.2.3). They constitute the framework and support the acceptance of ESD in the dialogue with its participants and with the school environment.

Sustainable Development, perceived as autonomous and codetermined sustainable design of all areas of life including the universal human rights and the requirements and chances of cultural diversity, is not possible without learning in an appropriate way. More than before, this connection of globally and sustainably designed development processes is in the focus of Global Development Education/ESD. Apart from school, this also applies to other areas of formal as well as non-formal education. This aspect is gaining importance in the UNESCO reports (see 2012[160]) in the context of the UN-Decade Education for Sustainable Development (ESD). The UNECE[161] strategy also puts the holistic development approach of ESD in its focus.

Hence, schools are asked to reflect upon their own activities against the background of the principle of sustainable development and to identify chances for an (increased) integration of the idea of sustainability in their specific areas. The development of a "whole school" as a school which integrates sustainable development on all levels, requires – apart from the curricular implementation of Global Development Education/ESD – the advancement of school as an organisation. Apart from a closer coordination of the various school subjects with one another and their alignment towards sustainable development, the structural integration of sustainability in school as an organisation is important.

[160] UNESCO (2012): Shaping the education of tomorrow, 2012 full-length report on the UN-Decade of Education for Sustainable development, Paris

[161] UNECE – United Nations Economic Commission for Europe (2005): Strategy for ESD

Increasingly, the expectations for schools reach beyond subject-related teaching of knowledge. In this context, new kinds of local cooperation, changing requirements for the school management and closer cooperation with the local school environment have important roles. The general competencies for everyday life are increasingly focused in school education which also effects subject-specific teaching. The establishment of full-time schools supports these developments, broadens the perspectives and influences priority setting in schools. Apart from the coordination of thematic references in subjects and learning areas, the educational institution as a whole is becoming increasingly important through the connection of its different elements. The principle of sustainable development should also be relevant for the school management and for school life in general, so that schools can become models for sustainable living. Here, **apart from the central task of education**, other areas are increasingly coming into focus:

· school management and the steering of school development
· democratic division of tasks and cooperation of the stakeholders
· social work at school
· school life and projects which supplement the education
· networks, cooperations and partnerships
· the administrative management of the school, recycling and resource management
· building design, construction and furnishing
· quality development and success monitoring

For each of these focuses, partners can be found to cooperate with; they will not only advise the school managers professionally, but often also develop proposals for cooperation which are aligned to the students' activities and lessons.[162]

The concept Global Development Education/ESD – *a task for the whole school* is not a closed structural specification but an open platform which supports the educational institutions' efforts to connect the already existing focuses and enhance them with elements of sustainable development. The development of this concept contributes to school quality. It is about "good school" in terms of generally accepted criteria (e.g. performance, handling diversity, quality of education, responsibility, school life and school as a learning institution) – which are also applied in awards such as the 'Deutscher Schulpreis'[163]. It is a task of the whole school community, of school bodies, management, teachers, employees, students, parents, cooperation partners and friends.

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[162] See "Schulen für Globales Lernen" (http://www.globaleslernen.de/de/schulen-fuer-globales-lernen, 27.10.2016) and the newsletter "Schulprofilbildung und Schulentwicklung", April 2015; http://www.globaleslernen.de/de/newsletter, 27.10.2016)
[163] http://schulpreis.bosch-stiftung.de, 27.10.2016
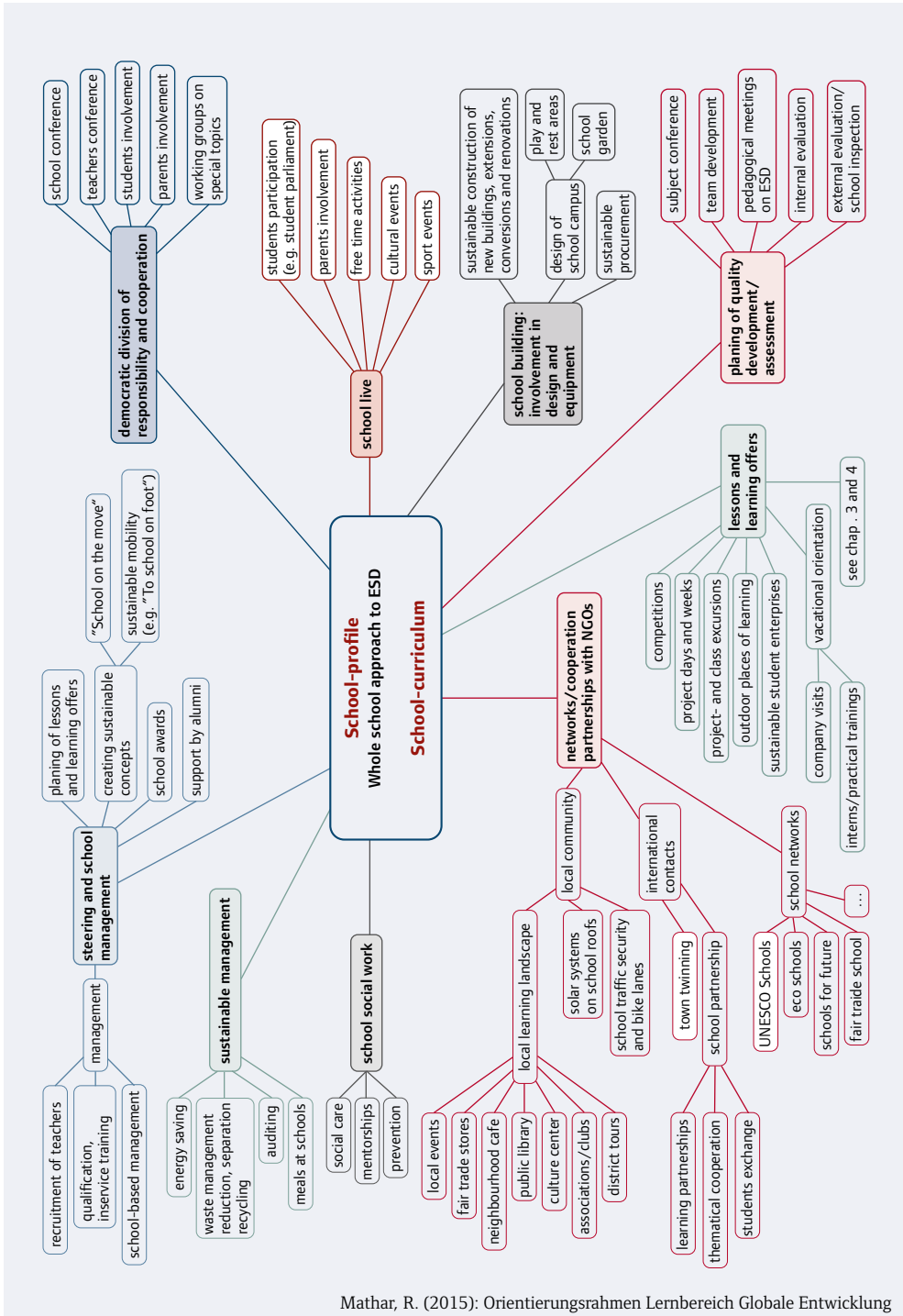
Fig. 13: Whole school approach to ESD

5.1 School profile – school programme – school curriculum

School profile, school programme and school curriculum are – with differences in their characteristics – images of the schools and their mid-term planning and therefore important tools for school development. The intended structural embedding of ESD in formal education[164] will have to be to carried out prudently in the often existing school profiles, school programmes and school curricula (on the development of the school curriculum, see chapter 3.9). Working on the school programme should be understood as open dialogue about the targets and projects of sustainable development. Many schools which have started to pursue this process on different ways – towards Global Learning, Environmental Education or other educational manifestations of sustainable development – provide inspiring examples.

Grundschule Obervorschütz

Ecological Learning

Artistic-Aesthetic Learning

Environment School, workgroup (AG) garden, workgroup (AG) nature, school grounds in a near-nature design, open air lab Ems, Hessen Solar Cup, Green Miles campaign, Solar day, saving energy

Participation in JeKi and Primacanta project, concert at the end of the school year, trip to Kassel State Theatre, workgroups (AGs) Art and Pottery

Organisation of a "Fair Week", "Running for Life" – fundraising for the "Taubenhäuschen" in Buenos Aires

Morning circle, class council, Kids' Conference, Entrusting responsibility – jobs and services

Global Learning

Democratic Learning

http://www.grundschule-obervorschuetz.de/, 27.10.2016

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[164] See Zukunftsstrategie 2015+ of the National Committee for the UN-Decade "Education for Sustainable Development", 2013 http://www.bne-portal.de/sites/default/files/BNE-Positionspapier-2015plus_deutsch.pdf

Carl-von-Linné-Schule

In 2013, the Carl-von-Linné School was among the first schools of Berlin which were rewarded the **Fair School** prize. To receive this prize, schools meet criteria from the areas

· Being fair to people at school/democratic school culture
· Being fair to the environment and climate/ecological responsibility
· Being fair to people around the globe/global learning

Furthermore, Global Learning has to be integrated within the school programme. The Fair School offers a guideline for the diverse activities in different subjects and learning areas.

Being fair to people at school/democratic school culture
Participation in the U18 poll – Fairness scores at the school sports event – very high degree of satisfaction of students and teachers regarding their interaction (school inspection report)

Being fair to the environment and climate/ecological responsibility
Team for bio-breaktime snack – creative upcycling and utilisation of used things in the learning workshops

Being fair to people around the globe/Global Learning
Global Learning has an important role in lessons and leisure time activities:

· Design of a "Global classroom"
· Cross-curricular education
· Fairtrade-Team
· School newsletter on Global Learning

· Annual school theme "Fair School"
· School partnership with Senegal
· Participation in school contests on Global Learning
· Cooperation with ASET e.V.

http://linne.schule/joomla3/index.php/globales-lernen, 27.10.2016

E.T.A. Hoffmann–Gymnasium Bamberg

Member of the network of the Unesco Project Schools

They can be found in more than 100 cities all over Germany: about 200 UNESCO-Project-Schools. All over the world, there are about 10,000 schools that cooperate within the ASP net (Associated Schools Project) in the UNESCO member states. They work for a culture of peace, by human rights education, education for democracy, Intercultural and Global Learning as well as environmental and world heritage education.

What are the implications for E.T.A. Hoffmann-Gymnasium?

Students, teachers and parents focus on the UNESCO guidelines, e.g. by the following activities:

- Networking with other UNESCO-schools (regional, national, international)
- International project day, e.g. on human rights
- Educational projects in Nepal and Tanzania
- Projects and exhibitions about the world heritage Bamberg
- Students and teachers have a multitude of international contacts
- Hands-on environmental education on the large school grounds

www.eta.bnv-bamberg.de, 27.10.2016

5.2   Teaching and learning

The school's central tasks are teaching and learning in the lessons and in extra-curricular projects. In chapters 3 and 4, the Curriculum Framework gives practical advice for almost all subjects until Secondary School Certificate (Level I) to meet the challenges of connecting central competencies with the relevant contents within a cross-curricular learning structure of the school. Normally, this can only be achieved step by step and by successful trial projects.

Sophie Scholl Gesamtschule

Cooperative Comprehensive School Wennigsen

Subject oriented project for everyone

For the students of the Sophie Scholl Gesamtschule (comprehensive school) Wennigsen (SSGS) near Hannover it is just natural to learn in contexts. The concept: work in thematic projects implies teaching in interdisciplinary contexts. Every school year, each form in all school branches works on at least one thematic project. These topics are determined in an overall conference for each form: e.g. desert (life in extreme regions), water, forest, I and all – wherefrom and whereto? India, fashism and neo-fashism. The contents are oriented at the subjects' core curricula; three to five subjects are involved. Many topics relate to global development. At the end of the period – after upto 8 weeks – the work is acknowledged in a joint presentation, in order to appreciate the diversity and quality of the results. All classes of the respective form participate. External partners are included in Global Learning at school (e.g. "Welt:Klasse Wennigsen" – Education meets development). Another reference point is the partnership with the Heritage School in Kolkata/India (school exchange programme and "German-Indian classroom").

http://www.kgs-wennigsen.de, 27.10.2016

This involves the connection of subject-related contents like health, justice and sustainable development.[165] The Curriculum Framework gives advice on how the contributions of the school subjects to developing competencies can be coordinated in the **school curriculum** (see chapter 3.9).

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[165] Reiner Mathar (2010): Gesundheit, Gerechtigkeit und nachhaltige Entwicklung, gemeinsam in der Schule aktiv für die Förderung der Kompetenzen der Schülerinnen und Schüler. In: Schulverwaltung, Zeitschrift für Schulleitung und Schulaufsicht 6, Wolters Klüwer, Kronach

If we want to support and actively involve students to develop competencies for shaping their own life sustainably, it is particularly important how they live together at school. **The students' participation** in the planning and design of school projects and lessons is of great importance. Agreements and rules are a trustworthy and effective expression of sustainable forms of life only, if they have been reached by participative and democratic negotiations. Life competency programmes that are used at school should focus on the social aspect of sustainable development. This also is a matter of connecting existing approaches (learning democracy, mediation, violence prevention, school without racism (…)) to aspects of Global Development Education/ESD.

Learning at school is not confined to formal lessons. Extra-curricular projects (or projects connected with the lessons) like **class or project excursions**, the **visit of learning locations outside the school** or the **cooperation with cultural projects** are indispensable supplements of the opportunities to learn and experience in Global Development Education/ESD. The proposals are manifold and can easily be accessed via educational servers.[166]

For 15 years, the KinderKulturKarawane (KKK – Children's Culture Caravan) with their young culture groups from the Global South has been guest of German schools – e.g. in **Hamburg**, **Oschatz**, **Marburg**, **Freiburg**, **Aachen**, **Lindenberg** and **Oldenburg** – meanwhile often as an integrated part of the annual school plan. The artistic stage presentations and workshops are guided by the youth addressing – quite naturally – topics of global development. The peer-to-peer encounters and the invitation to participate quickly inspire contacts and changes of perspective. The Caravan groups come from Ghana, Peru, South Africa, Bolivia, Cambodia or India, and they offer perfect chances to apply first skills in foreign languages like Spanish, English or French. Acrobatics, traditional and modern dance – jointly rehearsed – can be continued in the regular sport education; singing in chorus and playing different instruments can be enhanced in the music lessons. The students can discuss with the Caravan's theatre groups about the significance of theatre in Germany and in the guests's countries of origin. The plays – forming the highlight when they are being performed – deal with topics which are closest to the young people's lives, like problems with adults, fear of the future or poverty.

www.kinderkulturkarawane.de, 27.10.2016

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[166] See www.globaleslernen.de, 27.10.2016

5.3   Steering and management

School management has an important role in the design of Global Development Education/ESD. Hence, in the context of **qualification and advanced training of school managers** and of the school supervision, an in-depth understanding of the principle of sustainable development and the resulting management measures should be communicated.

Management and supervision of the school have to face the challenge to align the targets of public educational policy with the tasks and targets of the local school authorities. If e.g. a "fair" and "ecological" procurement is targeted for the school canteen, this requires appropriate action by the school authorities. If recycling and resource management at school shall be organised in a sustainable way, the staff of the local school authority has to be included in the organisation. All this can be a part of a regional educational programme which is targeted at sustainable development[167].
The **selection and qualification-planning of the teachers** is essential – and self-evident for any school-programme development. Incentives through the creation of advanced positions which support Global Development Education/ESD by creating responsibility structures can be an important element of human resources planning in this context.

For the social and cultural dimension of sustainable school development it is particularly important to staff the school beyond the requirement of teachers for the lessons. The **organisation of assistance and care** and the **inclusion of social work at school** with the opportunity of **students to participate** as well as the **inclusion of parents** and extra-curricular partners are very important areas. There are already tested organisational forms for sports and cultural events, **parents' cafés and cooking workshops.**

It is crucial for the success of such school development projects to **include the school board/conference** in a way that is transparent and based on responsibility. In the context of their tasks and according to their possibilities they should be able to identify with a sustainable profile of the school and support this with all its aspects in the school public.

Often the management of larger schools is in the hands of a steering committee. Apart from the **process steering of school development** this group is often also in charge of proposals for the improved utilisation of flexible lesson schedules, for the concrete **design of the time tables** as well as for the daily and annual rhythms and routines. These structural specifications or proposals are essential for the implementation of the contents of any principle. They set the scope for trial projects and for curricular agreements, they can motivate or demotivate, and they require an attitude that is oriented at the learners and at the agreed principles.

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[167] In the programme "Improving school together" in Hessen, the state's and communities' school budgets are merged into one budget with largely mutual convertability.
"But 'Improving school together' also means to support regional cooperations with parents, companies, clubs etc. for the pupils' benefit and beyond the cooperation of the project managers. Furthermore, in the focus of the pilot test there are the schools' quality management, the elaboration of a regional education programme, the strengthening of the schools' autonomy and the professionalisation of school management structures."
https://www.kreisgg.de/schule/schulentwicklung/schule-gemeinsam-verbessern/?type=97, 27.10.2016
The versatile cooperation of school and youth welfare or the inclusion of schools in sustainability strategies of communities or regional educational areas are other examples

5.4   School grounds, buildings, rooms and equipment

The school grounds, the buildings, rooms and equipment are an apparent expression of the school's self-image and of society's identification with the principle of sustainability. Today, the construction of new schools, their remodelling and extensions are no longer carried out by the project organiser, the architects and construction companies alone and by order of the responsible school board. **Participation processes** of the occupants and the quarter have become self-evident, even if they are not always easy and not always satisfying for all. Particularly with regard to sustainable construction and materials, to sustainable energy and procurement concepts, we are dealing with a complex learning process for *all* participants. Here, schools are quickly overstrained as co-deciders and depend on the support by professional partners. Anyway, the chances to develop the own or a neighbouring building site towards an efficient location for scientific, technical, economic, artistic and vocational learning processes are almost perfect.

The equipment and facility management are other dimensions of the processes of learning sustainable development. **The sustainable public procurement** has become an important field of action which has many tools at its disposal.[168] The true-to-life confrontation with the related opportunities and problems as well as their discussion in the wider environment of the school, with parents and friends, facilitate (even if often only indirectly) the acquisition of important experiences of purposefulness and of learning processes resulting in a feeling of self-efficacy.

The development of concepts of a (more) sustainable organisation of material cycles and the **use of resources** as well as the dialogue about this will confront the students with conflicts in the implementation of sustainable development, and they can acquire competencies for shaping their own lives. The focus on sustainable development also implies approaches for the solution of sometimes trivial and often annoying educational tasks in the fields of **waste prevention and disposal**, cleanliness, thriftiness and care for public institutions.

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[168] See e.g. http://www.nachhaltige-beschaffung.info, 27.10.2016
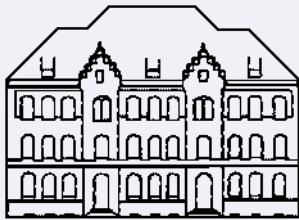
Paulusschule

KGS am Paulusplatz

Resource preservation – Paper
Saving paper – collecting wastepaper – using recycled paper
For five years, Paulusschule has its own Email list. Now, 98 % of the families use this list, and hence we can save a lot of paper.

Paulus-Lädchen
a shop for ecological school supplies
Meanwhile, the Paulus-Lädchen is fully established. It is run by fourth-graders who are supported by an adult. This way, the pupils not only learn to use raw materials in a responsible way, they also learn to handle cash money. In addition to all the paper products (exercise books, envelopes etc., all 100 % from wastepaper) we offer recycled products, products from bio-plastic and wood (FSC certified) and cardboard. This way, the kids are getting acquainted with the products and the respective labels (like "Blue Angle", FSC, PEFC).

Starter Package
Third-graders pack for their partner child
Here, pupils from third grade pack sustainable, high-value and inexpensive school material for first grade new-starters.

Waste sorting
Consumer agency garbage workshop
For four years, the first grade pupils have been separating their wastes. After the autumn school break, the pupils can participate in a "Garbage seminar" by the Verbraucherzentrale (Consumer agency). Thus, their awareness for aspects of recycling and resource protection is enhanced. Later, third grade pupils will learn how to make their own paper from wastepaper. So they are well prepared for running the Paulus-Lädchen.

http://www.umweltschulen.de/audit/paulusschule/paulusschule.html, 27.10.2016

Internationale Gesamtschule Heidelberg

UNESCO-Projektschule

With the ecoaudit active for environmental protection

The International Comprehensive School Heidelberg (IGH) was the first German school that implemented the former EC regulation, now EMAS (Environmental Ecoaudit Scheme). EMAS is a set of European standards for environmental protection. Since the first certification in 1999, the IGH has repeatedly been certified as audit school.

In our daily school life, we regularly perform the steps which are required by the EMAS regulation. This means we annually monitor our consumption of energy, water and material, the accumulation of waste, greening and mobility, in order to determine our environmental behaviour in these fields. We regularly elaborate a corresponding environmental programme with improvement targets. Our environmental team, in which school management, teachers, students, representatives of the administration and of the Environmental Agency cooperate, cares for the implementation. Each class elects two students as environmental spokespersons. They meet every week with the environmental officer. The E-team takes care of the correct handling of energy and for projects like "EEE-Erneuerbare Energien erleben" (experience renewable energies). The school secretariat offers a brochure which also helps the classes to find excursion destinations and partners for internships.

The City of Heidelberg provides financial support to the school for the efforts to save energy. These resources were used (among others) to purchase a solar plant and a wind generator. Furthermore, the school implements projects in the fields of waste, water, mobility, revegetation and food; the most dedicated students will receive a special environmental certificate. The annual environmental report informs about the school's efforts. External networks have also been established in the course of these long-term activities. So the IGH has organised a workshop with schools from five European countries.

https://igh-heidelberg.com, 27.10.2016

In a manageable context schools offer the chance to test **projects for a sustainable use of energy** and at the same time learn about the limitations of implementation. Possibilities go from the economical and efficient handling of limited resources to fair, socially and environmentally sustainable procurement to **healthy food from ecological and regional sources**. From there it is only a short way to establish working groups, to elaborate public internet presentations, elective projects and **sustainable student enterprises**[169] but also to include the core contents of the respective subjects.

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[169] See e.g.:
- NaSch-Community: Netzwerk für Nachhaltige Schülerfirmen (Network of sustainable student enterprises): http://www.nasch-community.de/wws/start.php?sid=28617591871855971539678297830960Sa9f189db, 27.10.2016
- Multiplikatoren-Netzwerk Nachhaltige Schülerfirmen: http://nachhaltige-schuelerfirmen.de/, 27.10.2016
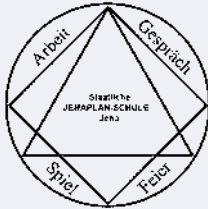
JENAPLAN-SCHULE JENA

SchülerFAIRma

The idea for our student enterprise was born in the context of many social and intercultural projects carried out by a school working group in cooperation with a partner school in the Nicaraguan village Dulce Nombre near San Marcos. We needed a new form of financing, to guarantee a solid basis for existing or planned projects. Two students from Nicaragua had the idea to found a student enterprise, with profits to be used to support our school partnership. This enterprise also has the objective to create an awareness for the topics of fair trade, ecologically sustainable lifestyle, mutual support and joint unbureaucratic actions among the German and Nicaraguan students, teachers and assistants. We want to stimulate discussions about these topics and inspire a more conscious lifestyle. Our target group does not only include all participants and their families but also the citizens of Jena and Dulce Nombre.

At our school we run a students' café and organise bazaars and a catering service (e.g. for school events). The basic idea for our work is to sell fair trade and more and more organically or locally produced goods. We support fair cooperation and conscious consumption. We get most of our fair trade products from the local One World Shop which is our close partner.

Furthermore the school and the One World Shop Jena sell products which have been produced in cooperation with students in Nicaragua (e.g. clay turtles of German kids, packed in little cloth bags from the Dulce Nombre sewing workshop) or by students in Nicaragua (e.g. jewellery).The revenue is used for the construction of a sewing workshop, a library and for the protection of sea turtles in Nicaragua. We also want to earn income for financing our contribution to exchange journeys. The student enterprise is structured in several departments with pupils/students from the 4th to the 13th grade. On the whole, 44 pupils/students participate in the project at this moment, and they all acquire competencies for their future professions.

http://www.jenaplan-schule-jena.de, 27.10.2016

Georg-von-Langen-Schule

Vocational Schools Holzminden

GvL Trade – Sustainable Student Cooperative

We are a student cooperative of the Holzminden vocational training schools. The students of the Berufsfachschule (BFS) Wirtschaft have founded the cooperative in 2005, and since then it has been managed by annually changing students. They are responsible for the administration and market products that are manufactured in the BFS-Holz and BFS-Metalltechnik. Their sales hit is a professional barbecue. The students take care that the rules of sustainability are respected, e.g. with regard to an economical use of material and the recycling of resources, and they cooperate across all our school types. They autonomously decide on the profit appropriation. Social projects are especially supported. So the students of year 2014 decided that part of the profit was donated for the victims of the typhoon in the Philippines. They used a personal contact to guarantee that the entire donation was applied to purchase and distribute basic need items on site.

http://www.gvl-trade.de/, 27.10.2016

5.5   **External relations**

Integrating the school into the community
By including the neighbourhood into its processes of sustainable learning the school develops new or extended options. This mainly means communication about local/regional economic developments, about social and ecological problems, i.e. the participation in actively facing local challenges.

In this way, the school can communicate that it cares for local development and that it realises that their city, district or the quarter are locations for learning. At the same time these contacts are extremely important for the students' **vocational orientation** which is one of the central tasks of secondary schools.

This requires that the schools are proactive and develop cooperations with business, administration and civil society in areas like:
· Town twinnings
· Citizens' solar panels on school roofs
· District cafés and libraries
· Translation and secretarial services for the community
· Public bicycle repair services
· Securing the ways to school and demanding the extension of cycle tracks
· Participation in the organisation of local events
· Production of APPs about places of interest and for tours

5.6   Partnerships, cooperations and networking

In many cases schools have **partnerships** in the region, with contacts in other parts of the country or with schools/projects abroad. Often they were founded by individuals, and many of them are hardly or not at all included in a comprehensive strategy or in the school programme. Here, Global Development Education/ESD provides the chance to strengthen these partnerships by a common goal, with a content focuses and by school-internal networking. If the schools use these partnerships to work on concrete topics which are interesting for both sides, it is possible to link them with the lessons. Thus, the planning reliability and long-term perspective can also be facilitated. The development of competencies, like the change of perspectives, can be strengthened by using own experiences. The partners from the Global South get the chance to improve the introduction of their own perspectives. Here, the already existing offers and internet platforms give support.[170]

The possibilities to communicate via internet or via mobile network devices have become everyday routine for many students – also in many countries of the Global South – however, schools still use them but insufficiently for their project partnerships. Furthermore, the systematic inclusion into the educational process and the critical discussion of the alleged freedom of communication can give the pupils **orientation for their own use of social media**.

The cooperations between schools of the Global North and schools/projects of the Global South can be basically differentiated in *sponsorships* and *partnerships*. While a sponsorship is focused on financial support from Germany for a school or a project, partnerships are mainly focused on dialogue and a joint process of learning.

In the context of partnerships and cooperations, the **non-governmental development organisations** play an important role. They can competently advise schools and also offer concrete projects and proposals. Within the concept of Global Development Education/ESD *as a task for the whole school*, this so far not extensively used possibility to strengthen the cooperation is enhanced by becoming an integrated part of the school programme. Here, the federal states' developmental networks are fulfilling as mediators and pilots a special task.[171]

Their promotors for Global Learning are also important contact persons for the educational co-operation between schools and NGOs. As a study on the 1st edition of the Curriculum Framework and its implementation shows[172], the role of NGOs as professional contact partners for schools has increased. The common reference to the competency model and to the thematic areas of Global Development Education/ESD facilitates the cooperation.

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[170] See
- http://www.globaleslernen.de/de/service/nord-sued-begegnungen/nord-sued-partnerschaften/nord-sued-partnerschaften-bundesweit, 27.10.2016
- The school exchange programme ENSA (http://ensa-programm.com/) supports partnerships between schools in Germany and countries in the Global South financially and professionally

[171] See the homepage of the association One World networks agl http://www.agl-einewelt.de/, 27.10.2016

[172] Engagement Global (2014): Auswertung der Nutzung des Orientierungsrahmens zum Lernbereich Globale Entwicklung im Rahmen einer Bildung für nachhaltige Entwicklung (http://www.engagement-global.de/globale-entwicklung.html, 27.10.2016)

Maria Ward Schule

Bad Homburg

School partnerships as learning partnership

In 2012 PROBONO started a partnership between the Maria-Ward-Realschule Bad Homburg and the Dr. Asha Rose Migiro Girls´ Secondary School in Mwanga, Tanzania. Right from the start it was important for both schools to focus on the dialogue as means of exchange.

It was fortunate for the partnership that a high-school graduate from Bad Homburg started with a three months volunteer service at the Tanzanian girls' school the first dialogue projects:

She showed a presentation to introduce the new partner school to the Tanzanian students, compared the German and Tanzanian timetables, made a photo mosaic of the German partner school, together with the Tanzanian students, and helped to install a partnership working group at the Tanzanian school, with many interested participants. The students of Maria-Ward school also showed considerable interest in the Tanzania working group: They had many more applicants than the they could handle. In the meantime, the students of the working groups regularly communicate with one another. They showed particular interest in the partner's country, in comparing the languages, the religions and the role of women in Germany and Tanzania. Each school has produced a short video about themselves and sent it to the partner; at the moment, both schools work on a joint students' magazine. It compares e.g. the name patrons of the two schools, discusses the topic of school uniforms or compares German with Tanzanian proverbs. Mutual study trips are planned, but such journeys are not indispensable for a successful dialogue.

It can be helpful to include **school and student competitions** in Education for Sustainable Development/ESD in order to inspire the students to work – individually or in groups – on the school focuses. They can experience to be successful and most of all that their efforts are appreciated if they participate in contests like the school competition of the Bundespräsident *everyone for ONE WORLD – ONE WORLD for everyone* or in the federal environmental contest.[173] The over 1,900 projects that were rewarded in the context of the UN-Decade Education for Sustainable Development – with many school projects among them, often carried out with a cooperation partner – had this very effect.

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[173] Overview on school contests and rewards:
- http://www.globaleslernen.de/de/aktionen/wettbewerbe, 27. 10. 2016
- http://www.bne-portal.de/de/bundesweit/auszeichnungen, 27. 10. 2016
- http://www.eineweltfueralle.de/, 27. 10. 2016

5.7 Quality development and success monitoring

School inspection and external quality evaluations are expected to include Global Development Education/ESD and its implementation at school into the focus of their assessment. Here, the elements described above can be included in the quality measurement. Furthermore, the school's **self-evaluation** and a school development learning from the results are important. The principle of sustainable development and the competencies developed in this context as well as the contents of Global Development Education/ESD defined in the school curriculum, provide – apart from the extra-curricular projects – the framework for internal processes of evaluation and development.

One World School Check

Based on the project "One World school check", which the **Alliance of the Schleswig-Holstein One World groups** (BEI) has implemented at schools, a manual for the implementation of Global Development Education/ESD was published. It addresses important topics and inspires interdisciplinary projects on: intercultural school design, food and drink, consumables and consumption, equipment and technics, building and outdoor facilities (focus on forms 7/8).

http://www.bei-sh.org/fileadmin/bei/dokumente/ werbefaltblatt_eine_welt_schul_check.pdf , 27.10.2016

The dialogue about the experiences with the implementation of joint decisions and the enhancement of the profile have to be crucial elements of an autonomous school development which is targeted at the principle of sustainable development.

The quality criteria of Global Development Education/ESD are a challenge for the school as a whole because the students need to be enabled to develop competencies for their future life and professional career, as well as to participate in their society and share responsibility in a global context.

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6   Education for global and sustainable development in teacher education

Bernd Overwien

6.1   Teacher education in shared responsibility: from dedicated approaches to systemic structures

Education for Sustainable Development (ESD) and Global Learning/Global Development Education have become part of the general education at German schools. Universities also strive to integrate Education for Sustainable Development in teaching and research; the declaration of the Hochschulrektorenkonferenz (HRK) has clearly emphasised this point (HRK 2009)[174]. Universities and Pädagogische Hochschulen are in charge for the first stage of teacher education. But – as a recent study from Baden-Württemberg shows (Siegmund, A.; Jahn, M. 2014)[175] – the targets of the HRK declaration regarding these topics are implemented rather slowly. Whereas all over Germany there are many universities/colleges with individuals and groups who work in the field of didactics or pedagogical sciences, sometimes even in other professional disciplines by using contents, systematics and methods of ESD – essential steps are needed for a systematic integration of sustainability and global perspectives into teacher education at universities and colleges. Networks like the Hochschulnetzwerk BNE Baden-Württemberg (www.bne-hochschulnetzwerk.de) play an important role as platforms for the cooperation and exchange on current research and for the co-operation among didacts and scientists in the subject fields.[176] The focuses of universities and colleges are very important for the structural embedding of Global Development Education/ESD.

In principle, German teacher education is organised in its first phase at universities/colleges, in the second by the respective federal states (study seminars) and in the third (continuing and further education) at state institutes (Landesinstitute). By now, most study courses of the first phase are modularised. In some federal states they directly lead to state examinations, while in other states a combination of BA- and MA- studies is required.

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[174] Hochschulrektorenkonferenz (2009): Hochschulen für nachhaltige Entwicklung. Bonn http://www.hrk.de/positionen/gesamtliste-beschluesse/position/convention/hochschulen-fuer-nachhaltige-entwicklung/, 27. 10. 2016

[175] Siegmund, Alexander; Jahn, Markus (2014): Evaluation von Hochschulen in Baden-Württemberg. BNE in der Lehrerbildung im Rahmen des Projektes "Lernen über den Tag hinaus – Bildung für eine zukunftsfähige Welt". Pädagogische Hochschule Heidelberg

[176] Siehe Krah, J. M.; Lude, A. (2013): Das Hochschulnetzwerk "Bildung für nachhaltige Entwicklung" Baden-Württemberg – Forschung, Lehre, Betrieb und Transfer http://www.bne-hochschulnetzwerk.de/fileadmin/subsites/2f-bi-ol-t-01/user_files/lude/Krah_Lude_2013-Hrsg_BNE-Hochschulnetzwerk.pdf , 27. 10. 2016

University Lüneburg: Leuphana-semester as an interdisciplinary study offer

The Leuphana semester is an offer to all students, also to student teachers. This is an interdisciplinary range of courses including the obligatory thematic element "Science bears responsibility – Sustainability and responsibility in society" (the students attend the lecture and also select a seminar). In addition there are courses with general, methodological, mathematical, historical and philosophical focuses. In the second semester, these courses are continued with the complementary studies in which interdisciplinary thinking and competencies are promoted which go beyond specialised knowledge.

http://www.leuphana.de/studium/bachelor/leuphana-semester.html, 27. 10. 2016

Students' initiative Greening the University

Students are committed to the goals of sustainable development. For example, there is a student group at Eberhard Karls Universität Tübingen that strives for integrating the concept of sustainable development into university teaching. At their university they lobby for integrating the principle of sustainable development into teaching and research. One of their goals is to reduce the university's ecological footprint so that it will be environmentally friendly. To this end, they have published working papers, held lectures and issued practical proposals, for example towards a "Sustainable Canteen".

http://www.greening-the-university.de/wordpress/, 27. 10. 2016

Students' initiative: Consumption-critical city walk in Kassel

A seminar at Kassel University resulted in the development of a concept by student teachers for a consumption-critical city walk. Clothes shops, groceries, energy and water supply companies were examples of thematic stations of the city walk, which has been elaborated to provide general guidelines and collections of material. These guidelines and materials should help teachers to autonomously organise their own consumption-critical city walks in future. There have already been two city walks with school classes (forms 7/9) that have successfully tested the guidelines for the stations of the walk. The learning location "Consumption-critical city walk" was integrated into school-curricular arrangements in the context of this project. The material of the city walk refers to the Curriculum Framework Education for Sustainable Development. A handout for teachers, with hints and advice for the individual planning of city walks, was developed in order to support the implementation.

http://www.konsumkritik-kassel.de/, 27. 10. 2016

The studies are structured in professional disciplines, a subject-related didactical and an educational science part. In addition, there are internships or practical semesters. The teaching practice which is also modularised in some federal states lasts one to two years, according to the states.

The integration of ESD and Global Development Education first requires an integration of the relevant contents into the subject systems. Here, the expertise of the respective subject associations is required, on which the "federal states' joint content requirements for teacher education are based".[177] In order to accelerate this process of integration of new contents into the subject classifications – which is mostly rather slow – the federal states can include appropriate specifications into the "Target and performance agreements for teacher education". At present, teacher education in Germany is in a transition phase which also presents opportunities. With the increased modularisation of the teaching contents at universities and teacher training colleges there is also a gradual improvement of the classification of subject-related, subject-didactical and educational/social science contents. This classification increasingly reflects the requirement of the Standing Conference of Education Ministers with regard to the teachers' competencies.[178] The "federal states' joint content requirement(s)" for professional sciences and didactics with their competency profiles and study contents contribute to the structural improvement and offer links to Global Development Education/ESD. Within this process, the universities and colleges have the task to improve the integration of the thematic fields of sustainable development and global processes into the modules and study regulations. Here, the professional principles of inclusion within a "School of diversity" have to be respected.[179]

The integrative parts of teacher education which are very important for Global Development Education/ESD have to be coordinated with and integrated into the subject-related didactics and educational science parts of the studies. The phases of internships and practical semesters need to be used for that in particular. Here also, the step from the multitude of isolated initiatives towards a systemic approach to sustainable development at universities/colleges still needs to be made.

[177] KMK (2008/2015): Ländergemeinsame inhaltliche Anforderungen für die Fachwissenschaften und Fachdidaktiken in der Lehrerinnen- und Lehrerbildung. Bonn
[178] KMK (2004): Standards für die Lehrerbildung. Bildungswissenschaften. Bonn
[179] KMK/HRK (2015): Lehrerbildung für eine Schule der Vielfalt. Gemeinsame Empfehlung von Hochschulrektorenkonferenz und Kultusministerkonferenz. Bonn

Geography Didactics at Karlsruhe Institute of Technology (KIT) (Phase 1)

In the context of the modularised studies for student teachers of geography, Education for Sustainable Development (ESD) is regularly integrated into the obligatory subject-didactics seminars. Here, principal questions and different approaches of ESD in general and the development of systemic and anticipatory competencies in particular have key roles. By using best practice sample lessons the students reflect on the significance of these competencies for modern education and for geography lessons. They will continue to discuss how the lessons can be designed in order to optimise the development of central ESD competencies by using appropriate themes and methodological approaches. Here the students have the task to conceptualise practical steps for the teaching/learning sequences which they have chosen. In an open discussion these proposals will be reviewed against the background of their compatibility with ESD. The goal of this process is to enable the student teachers to autonomously design geography lessons according to the Curriculum Framework.

Anti-racist education for student teachers – University Hamburg, Institute for Intercultural Education (Phase 1)

The Institute for Intercultural Education at Hamburg University offers a seminar on anti-racist education. The primary goal of this seminar is to sensitise teachers-to-be in the field of racism.
Some of the contents of this seminar are anti-racist theories about the historical evolution and multiple effects of racism as well as empirical studies on institutional discrimination at schools, practical interventions and critical analyses of media coverage and lesson contents. The students learn to realise their own involvement in racist structures and to reflect their own positions. They will get information about helpdesks, possibilities for further education as well as critical teaching material. The demand for this course exceeds the capacity, so it is planned to offer interdisciplinary anti-racist education in cooperation with subjects and didactics and to expand the scope and create additional practical references.

Microcredit project

From 2009 to 2013, the **Project team Global Learning Rhineland-Palatinate** – seminars, schools and the university – cooperated on the focus "Micro finance/microcredits". The heads of geography departments at the teacher training colleges in Trier, Kaiserslautern and Mainz participated together with teachers and partners of Trier University. The topic was addressed in the context of different seminars at Trier University, in subject-didactic seminars and in students' internships as well as in special seminars for trainee teachers. Students, teachers and trainee teachers produced teaching material and final examinations. In advanced training courses teachers could be recruited as multipliers. When a competition was stipulated many schools in Rhineland-Palatinate were inspired to work on issues of Global Learning.

In the second phase, the subject-oriented modules of teaching and the elective modules are appropriate for an integration of contents from the Curriculum Framework. For the acquisition of specific competencies, also the final exams and subject papers are suitable. In the second and third phase of teacher education, there are promising approaches which the persons in charge have to gradually transform to systemic structures of implementation.

Furthermore, the following applies to all phases of teacher education: Apart from embedding Global Learning/Education for Sustainable Development in the school subjects, interdisciplinary and transdisciplinary learning are to be enhanced at school as well as in teacher education.

Apart from the subject perspective, most global problems and the goals of Education for Sustainable Development also include requirements with regard to interlaced thinking, multiperspective perception and complex acting in interdisciplinary form (see Moegling, Klaus 2010 and Peter, Horst; Moegling, Klaus; Overwien, Bernd 2011). Only if the trainee teachers receive proposals within their education which enable them to experience the integration of theory and practices with interdisciplinary learning in the context of Global Learning projects, it is realistic to expect that they will be able to successfully implement cross-curricular learning in their future teaching practice.

In the light of the dynamics of globalisation processes and of the heterogeneous backgrounds of many schools and often distorted ideas of the everyday reality in the Global South, the opportunities to internationalise teacher education should be extended. The persons in charge still have difficulties implementing this and there are only very few universities and colleges in Germany with trainee teachers who perform their obligatory internships abroad or even in the Global South. This is for example possible at Köln University that offers internships at schools in Uganda, or at Flensburg University which has good contacts to Ghana.

6.2   Requirements of Global Development Education/ESD for teacher education

The integration of Global Development Education/ESD into teacher education implies several requirements which are also defined in a memorandum written by a working group of actors from all phases of teacher education.[180] Primarily in its first two phases, teacher education is asked to design the development of competencies in such a way that trainee teachers are able to stand up to the special challenges of Global Development Education/ESD, as these challenges are parts of the teachers' subject-specific and general pedagogical qualification. These requirements include the connection of ESD with the basic concepts of their respective subjects. But interdisciplinary or subject-linking perspectives are also important. The integrated subject structure has to be taken into account for the preparation of primary school lessons, whereas for vocational education the integration into the structure of the learning field is vital. Teaching projects in Global Development Education/ESD will be successful if the basic subject-related concepts and competencies are connected in a meaningful way with the guiding principles and the 11 core competencies of Global Development Education/ESD.

In the context of teacher education the acquisition of several basic insights, skills and dispositions is important.[181] It is considered that for their acquisition all three phases of teacher education are taken into account – ideally related to one another.

1. Fundamental insights and an understanding of omnipresent global processes as well as the didactical competency to open the students' learning perspective for them. Attitude, knowledge and the competency to act are essential.

2. The knowledge of the principle of sustainable development as a foundation for the analytical understanding of complex developments and for an orientation in personal, social and political decisions.

3. The ability to analyse – individually and in the learning process with the students – global processes in the four target dimensions of this principle with regard to their interdependences and target conflicts, and to discuss possible solutions for the conflicts.

4. The readiness to embrace the eleven core competencies of Global Development Education/ESD and the ability to connect them with the respective specific competencies of the own and other subjects as well as with supra-disciplinary competencies.

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[180] See LENA – Deutschsprachiges Netzwerk LehrerInnenbildung für eine nachhaltige Entwicklung (2014): LehrerInnenbildung für eine nachhaltige Entwicklung – von Modellprojekten und Initiativen zu neuen Strukturen. Ein Memorandum zur Neuorientierung von LehrerInnenbildung in Deutschland, Österreich, der Schweiz und Luxemburg. Lüneburg

[181] This is no specified catalogue of competences, but rather a recommendation which has to be concretised and augmented according to the respective situation (see the proposal of Lang-Woijtasik, G., 2014)

5. The perception of cultural diversity as a formative element of structures in the global society, in its significance for different approaches and attitudes, as well as the competency to include them in a dialogue about shaping the future and in conflict resolutions.

6. The ability to analyse, evaluate and – within the range of the own capacities – participate in the formation of development processes on different levels of activity, from the individual to the global level, and to strengthen this competency in learning processes at school. Here it is important to attain the abilities of self-reflection and self-positioning.

7. The readiness and ability to actively add contributions of the own subjects to Global Development Education/ESD when designing a school-internal curriculum, and to make use of the opportunities for subject-linking coordination.

8. The readiness and ability to engage in processes of school development which are targeted at a holistic development of the school directed towards sustainable development.

The teachers' competencies are rooted in the targeted planning, organisation, design and reflection of processes of teaching and learning. In particular, this is about teaching, educating, diagnostic capabilities, evaluation, consulting and about the ability to innovate. In order to attain these competencies, a strong expertise, knowledge about the relationship between school subjects and the respective professional discipline and about the link between subject-related, didactical as well as educational and social sciences perspectives are needed.[182] As many topics can only be comprehended in an interdisciplinary way, this is also connected to subject-linking and cross-curricular approaches.

Competency concepts are, as a rule, related to subject contexts of a domain. Global Development Education has substantial features of a domain: a distinctive scope of themes and the access to the world in terms of Education for Sustainable Development. It is structured in a cross-curricular/interdisciplinary and subject-linking way, but also reflected in the specific subjects. Here, in contrast to integrative learning areas, the subjects contribute to a cross-curricular thematic area, beyond the addition of the subjects' contents. The principle of sustainable development and the connected educational traditions, approaches and methods are fundamental for the competency requirements in Global Development Education/ESD. From here, corridors to relevant subject knowledge can be accessed; the subject-didactics and the educational science part of the studies can connect them to form professional competency. Teacher competencies of Global Development Education/ESD directly connect with the current ideas of general teacher competencies. Advanced training programmes for facilitators of study seminars, that include important stakeholders of the learning area – as they are for instance offered by the Zentrum für Lehrerbildung of University Kassel – can play an important role and provide orientation for the division of labour in the complex learning field "Globalisation" (see also Füchter 2010).

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[182] Terhart, Ewald (Ed. 2000): Perspektiven der Lehrerbildung in Deutschland. Abschlussbericht der von der KMK eingesetzten Kommission. Weinheim

6.3   Steps of a systemic integration of ESD into teacher education

In the First Phase at universities/colleges a divided procedure is realistic to open the first access to Global Development Education/ESD and then deepen this. The lectures of the subject sciences, subject-didactics and educational sciences integrate the relevant contents of the learning area and hence prepare for the acquisition of respective competencies. The central introductory and deepening lectures address – within the specific access – the links to global issues and sustainability. From their respectively different perspectives, the subject sciences develop their own contributions to access the learning area. Here the point is not to include additional contents but rather a global perspective on the specific contents. The subject didactics address from a theoretical perspective the inclusion into educational and subject-specific concepts as well as into the competency models of the respective subject. They discuss the school's methodological and content approach to Global Development Education/ESD and the evaluation of learning results.

Here, as in the educational sciences, learning opportunities are offered which enable the trainee teachers to coherently perceive the learning area. The educational sciences introduce into the learning area's relevant traditions of teaching and learning. They will address – if possible also in pedagogical psychology – the problems of handling complex global issues and offer, based on social science findings, references between school education and (global) social contexts and conditions. It also makes sense to offer integrated seminars, tutorials and project courses of subject sciences, subject-didactics and/or educational sciences. Here the essential aspects of contents and competencies of Global Development Education/ESD should be addressed with respect to the lessons, the whole school and also the school environment. Ideally, modules of Global Development Education/ESD will be included in the structure/regulations of the studies and/or the contents and competencies of the learning area integrated into existing modules (e.g. on school development, social contexts and conditions of school etc.). Furthermore, integrative courses which are especially important for Global Development Education/ESD will be offered in the subject-didactics and educational science courses of the studies. Internships or practical semesters can also be used for that purpose. To be consistent, Global Development Education/ESD has to become an integral part of all subject-didactics. The cooperation of educational sciences, subject sciences and subject-didactics should be promoted, for example by target agreements at the colleges and universities.

In the context of the redesign (e.g. in NRW) of Primary School Sachunterricht as an autonomous discipline with reference subjects, the opportunity can be used to establish the focus "Global Development Education/ESD". The study course Sachunterricht at Siegen University, e.g., offers an "indepth study" with four seminars which is related to the principle of sustainable development and to the network approach of ESD.

Advanced training for university/college teachers

In a university course on Education for Sustainable Development (ESD), in cooperation with Klagenfurt University and a non-governmental organisation, teacher trainers were teamed with experts from didactics of biology, educational sciences, Environmental Education/ Education for Sustainable Development, action research etc. The course was designed as an instrument for the implementation of Education for Sustainable Development into teacher education, in which a process-driven and participatory approach is emphasised. This pilot course of four semesters is targeted at stakeholders of teacher education at Austrian teacher training colleges. The contents of the course deal with the structural dimensions of Education for Sustainable Development. The course was developed in a "learning and research community". The participants' target was to organise a scientific teaching and research project for teacher education, in close cooperation with the personal professional practice. This was about the development of the ability to reflect and about the advancement of the own behaviour as teacher. Between the attendance phases, institutionalised and guided regional working and discussion groups were organised to continuously work on the projects (see Steiner 2011).

External places of learning in teacher training

In the context of excursions for the didactics of biology, political sciences and primary school education during the first phase of their training at Kassel University in Northern Hessen, student teachers are being prepared for the potentials and use of external places of learning. An example is the tropical greenhouse of Kassel University in Witzenhausen, which is being visited by 3,000 pupils per year. The greenhouse offers several projects for pupils to learn about biological and political aspects of sustainability. "Many people set our table" is a project that is targeted at the connection between food and plant biodiversity as well as at the effects of global processes in our day-to-day life. Another project on the topic "chocolate" shows the interrelationships between environment and development by using the cocoa plant as an example.

Certified course Education for Sustainable Development (ESD) – a qualification in the context of advanced teacher training

The certified course for ESD multipliers was developed by the Zentrum Bildung für Nachhaltige Entwicklung at the Landesinstitut für Pädagogik und Medien (Saarland) and has been successfully conducted four times. The course is targeted at teachers of all school forms. The goal is to complete the training of the participants within one school year to integrate ESD in their schools. In 10 course modules the basics, methodologies and interdisciplinary contents of ESD are taught with a practical orientation, e.g. on topics like food, climate, energy, money, consumption, biodiversity.
The modules are organised in cooperation with the local ESD partners and hosted at different external locations. This approach leads to a direct connection with the practice of stakeholders. The certificate helps to give the participants the opportunity to implement ESD as an interdisciplinary and forward-looking concept at their school and to integrate it into their every day work.

In the **Second phase**, the subject-oriented modules of the field "teaching" and the elective modules are appropriate for an integration. As far as provided for, the elective modules also offer respective opportunities, for example in the field "Developing and designing the school". For the acquisition of the respective competencies, written final exams and subject papers are also suitable.

Within the **further education and training (Third Phase)** there are many proposals by the state institutes, by non-governmental organisations and by private suppliers. It is important to note in this context that the teachers often learn and train themselves in a highly individual way in the context of informal learning processes (see Overwien 2013). Research studies are available that clearly demonstrate the informal modes of learning by teachers; these studies are based on a broad data base from the research of advanced training. Compared to other professions, teachers are especially active in this field (Heise 2009). Informal opportunities of learning (e.g. web portals) should be appreciated more as supplements to the formal structure of advanced training and education.

Some federal states have started to determine quality criteria for programmes of advanced training and education by framework agreements. These agreements support the schools' access to the large number of courses offered. Global Development Education/ESD should also be integrated in the state institutes' quality criteria. If there are modular structures, they should be firmly integrated. Sequences of advanced training with practical phases would be perfect.

Often the supply of advanced training and education is linked to external places of learning. Generally, these places have the reputation to be able to provide a sound supplement for learning at school. Several studies from the perspective of the didactics of geography, history and natural science (see Busse, M.; Menzel, S., 2013; Schockemühle, J., 2011) show that activating modes of learning are quite promising and that the inclusion into or at least their link to learning at school is needed. External providers like non-governmental organisations can cooperate in the organisation of encounters with people who represent a global context. Furthermore, these contacts can trigger and support global partnerships.

Financial resources from the BMZ (Federal Ministry for Economic Cooperation and Development) are provided – e.g. for projects to implement the Curriculum Framework Education for Sustainable Development – to support these activities. Due to the wide scope of subjects within the learning area, the total demand is not yet being covered. In future there will be a considerable demand of consultancy for school development in general and for the design of internal school curricula. Here the school management also need to be trained.

Senatsverwaltung für Bildung, Jugend und Wissenschaft (State ministry for Education, Youth and Science), Berlin

Module Teaching

Optional module 2:
Global Learning – Learning models for the implementation of Education for Sustainable Development and the KMK Orientation Frame for the learning area Global Development.

Competencies:
Trainee teachers are able to design project oriented teaching arrangements, taking into account the principle of sustainable development and the core competencies of the learning area Global Development.

Manual
teacher training

Standards	Potential contents
The Trainee Teachers (…) · plan lessons for selected development projects to promote domain specific competencies. · analyse selected development projects from the perspective of sustainable development. · plan lessons within selected development projects from the perspective of sustainable development for the promotion of core competencies of the Orientation Frame for Global Development.	· Criteria for the selection and design of topics and tasks · Conceptual foundations of the Orientation Frame · Core competencies of the Orientation Framework · Principles and problems of cross-curricular lessons · Principles and problems of project oriented lessons

Since 2012, the teaching practice within the teacher training in Berlin includes an elective module Global Learning with a minimum of ten hours or four weeks. The introduction of the learning area Global Development is connected with the development of model lessons. The project "Learning in global contexts by the example of the "Airport Berlin Brandenburg Willy Brandt" was planned with two study seminars. Within their practical seminars, the trainee teachers of the subject seminars biology, geography, history/social science/political science drafted and published their concepts for competency based teaching models. All study seminars can offer different modules. In 2014, the topics "(No) plastic world" and "Bees" have been implemented.

- **Project days on Global Learning during the teacher traineeship**
  Within the UN-Decade "Education for Sustainable Development" (ESD), the **State Seminar for Didactics and Teacher Education Stuttgart** has developed a concept for advanced training as a model for project days at schools. In 2011 and 2012, the focus was Brazil, in 2013 and 2014 on "Hotspot City". All proposals include an introduction to the Orientation Framework Global Development and to the principle of sustainable development. The workshops are offered for trainee teachers of all subjects. Each year about 80 trainee teachers participate in this elective module.
  www.gym.seminar-freiburg.de/,Lde/812813

- **Systemic Integration of ESD in the Second Phase**
  The **State Seminar for Didactics and Teacher Education Meckenbeuren** systemically integrates the targets, principles and strategies of ESD within teacher training. As a basic qualification the student teachers of this seminar complete a three-tier basic module, of which a first part is held in the introductory week. Likewise, all new assistant teachers learn about the principles and strategies of ESD. They will be able to relate them to their curricula and form themselves concepts to be included into the practical planning of courses or lessons.These efforts are particularly promising if the young colleagues have already experienced in the second phase of their training best practice lessons at their respective training schools, and if they are included in such projects.

- **Using the Orientation Framework in teacher training – didactics of geography**
  The Orientation Framework Global Development is being integrated into several study seminars of geography didactics. In the context of concepts for Education for Sustainable Development, the Framework is presented in detail, e.g. at **Karlsruhe Study Seminar**. Each trainee teacher is given a copy and asked to study it focusing on the concepts, most of all on the core competencies, which are defined for the competency areas "Recognising", "Assessing" and "Acting", combined with the 21 thematic areas. Based on these studies, they critically and constructively analyse the geography sample lesson "Galápagos Islands". They are asked to draft their own teaching unit or sequence based on the conceptual principles of the Orientation Frame.

State Institute for Teacher Education and School Development (LI), Hamburg

- **Second phase: Regular cross-curricular workshops for different school forms with the participation of non-governmental organisations**
  According to the Orientation Frame Global Development the trainee teachers in Hamburg are given incentives and ideas for the design of their lessons, for the development of school profiles, for a cross-curricular organisation of the lessons and for the cooperation with external partners. According to the KMK standards for teacher training, Education for Sustainable Development (ESD) and in particular the advancement of Global Learning within the respective subjects as well as through the cross-curricular cooperation in "educational task areas" are constitutive parts of the second phase of teacher training.

  The LI has already been host of five four-hour-workshops that were all collectively prepared, organised and evaluated by 110 trainee teachers of three school forms together with seminar facilitators from seven subject areas (Arbeitslehre, geography, history, philosophy, political science, religion, Sachunterricht) and in cooperation with representatives from eight NGOs. The results were refined in the seminars and tested in the training schools.
  Trainee teachers work as facilitators who are in charge of the preparation of the workshops. Together with a selected NGO, they familiarise with the respective topics. Regularly, the trainee teachers prepare trial lessons and theses in the context of the Second State Examination.

- **Advanced teacher training in the context of the Orientation Frame for Global Development**
  Within Global Learning advanced trainings on different topics and with different cooperating partners are organised, oriented at the Orientation Frame Global Development. In the last years they were often related to the thematic focuses of the UN-Decade of ESD, e.g. to:
  – Sustainable Hamburg: Mobility, consumption & the city
  – Consumption of meat and production of forage
  – Conflicts over natural resources and human rights
  – Forms of school partnerships
  – Hamburg's teaching models on Global Learning

The provisions of training are selected by teachers in Hamburg in the context of their obligatory training and certified by the LI. It is a matter of approaching relevant topics didactically for the respective age group and curriculum. The Orientation Frame with its core competencies, global perspective and inspirations for cross-curricular or subject-linking learning provides structural guidance. Other essential elements of the training seminars and workshops are partner contacts (mostly NGOs) and the evaluation of teaching material.

The supplies of advanced training and education are already manifold and often comprehensively usable (see Virtual Academy of Sustainability). In the context of the further development process, however, they still need comprehensive structures and a more systematic inclusion into teacher education and training.

Training of multipliers at the Landesinstitut für Lehrerbildung Brandenburg (Phase 2):

Education for Sustainable Development – acquisition of competencies for future-oriented teaching and learning
In the context of the UN Decade ESD, the Orientation Frame helped to pursue several objectives of teacher training. For the **State Institute for Teacher Education Brandenburg** (LaLeb) Global Development Education in the context of Education for Sustainable Development is an important part of the education of future teachers, particularly to enhance the quality of this education. Practical examples are in the focus of this seminar: The project "Experiencing diversity – playfully learning from one another: El Sistema in Brandenburg – a contribution to the development of global thinking and sustainable action" was an example for discussing practical approaches of learning. In Venezuela, "El Sistema" has worked with the goal to offer opportunities for poor children and adolescents by using music in order to promote their potentials. The Youth Orchestra integrates poor youth and brings them closer to the world of music.
Student teachers used this example to develop a model lesson to be used in music and Spanish. (see the film: http://www.bildung-brandenburg.de/el_sistema/idee.php?id=2)

Virtual Academy of Sustainability

The Virtual Academy of Sustainability was founded at **Bremen University**. Here courses on issues of sustainability are offered free of charge. Students can attend lectures on a scientific level and receive additional material. A sequence of lectures on Education for Sustainable Development is offered, with an introduction that shows the need and explains the international context of this approach. Additional individual lectures introduce to the theoretical basics and backgrounds. The present state of ESD in Germany is described and findings about the effects of ESD and the chances to integrate it into the "educational landscape" are discussed.
A number of lectures is also suitable for teacher training, e.g. in the field of vocational education focusing on topics like "ESD and management" or "ESD and business administration". Fundamental questions of sustainable development and of the change of society or the effects of climate change are also lecture topics. http://www.va-bne.de/

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Appendix

www.globaleslernen.de, 27.10.2016

The "Global Learning" Platform offers a quick and clear access to all information and educational services that are relevant for Global Learning/ESD.

Main target groups are teachers, multipliers of youth and community work, teacher training, public and NGO stakeholders of development education. **Editor:** World University Service e.V. (WUS)

- free educational materials (download)
- current events and training programmes
- campaigns, activities and competitions
- basic texts and documents concerning Global Learning/ESD
- links to educational platforms, data bases and libraries
- research tools with more than 80 keywords in the field of Global Learning/ESD
- overview of actors and networks in the field of development politics
- information on project funding, agency for experts and North-South-Partnerships
- Orientation Frame: texts, material, implementation
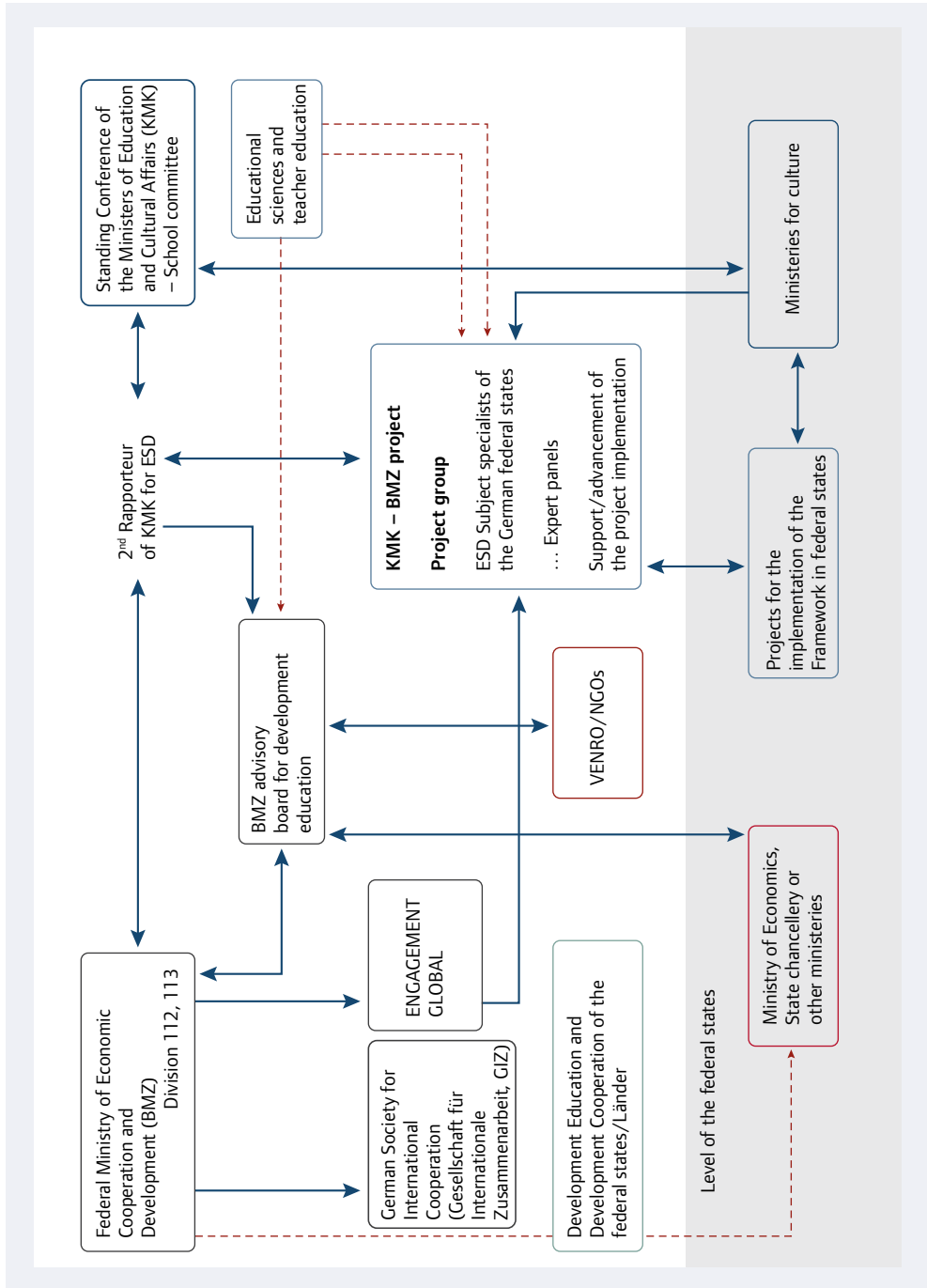- Monthly newsletter with changing focus

Fig. 14: Institutional coperation Global Development Education/ESD

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worked as a graduated sociologist at the "Staatsinstitut für Schul-pädagogik" (State Institute of school pedagogy) and at the state ministry for cultural affairs in Munich. For many years, he was working in the field of development cooperation in Asia and Africa. From 1993 to 2007 he was KMK rapporteur for development education, starting the cooperation with the BMZ; he chaired the KMK-BMZ project of the Orientation Frame until the 2007 KMK decision.

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[183] The authors' photographies are their respective properties

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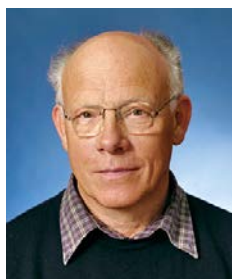
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studied sports science, psychology and psycho gerontology. He is Director of the Institute of Sports Science at Tübingen University where he is Professor for Social and Public Health Sciences. His research priorities are sociology of sports, health and education. He has conducted a number of research projects, e.g. health analyses in top-level sports, work of coaches in top-level sports and body related stereotypesations and stigmatizations.

Prof. Dr. Stefan Ufer

Doctor of Mathematics and teacher for Mathematics and Physics. Since 2006. He is Professor for the Didactics of Mathematics at Ludwig-Maximilians University in Munich. His research priority is the development of mathematical competencies throughout one's whole life. His teaching focus is on teacher education and on the concept and evaluation of support schemes for mathematics students.

Prof. Dr. Volker Ulm

Professor for Mathematics and its Didactics at Bayreuth University. He was Professor for Mathematics Didactics at Augsburg University before and started his career as teacher at secondary schools and worked for the Pädagogischen Hochschulen Heidelberg and Karlsruhe. His research is related to the basic issues of teaching and learning of Mathematics, to the development of education by teacher training, to digital media and mathematical talents.

Regina Ultze

teaches at different schools since 1983, most recently as head of the social science subjects at the Melanchthon School, a secondary school in Berlin. Since 2008, she is also in charge of the learning area "Learning in global contexts" for the "Senatsverwaltung für Bildung, Jugend und Wissenschaft" (Senate ministry of education, youth and science) in Berlin; she coordinates the Berlin based project for the implementation of the Orientation Frame in cooperation with schools, study seminars and external partners.

Prof. Dr. Raimund Vogels

studied music ethnology in Cologne, Accra (Ghana) and Berlin. After his doctoral degree, he worked at Maiduguri University (Nigeria) from 1988 to 1990, and then at the Museum für Völkerkunde in Stuttgart. In 2001, after his habilitation on court music for the Islamic rulers in Northern Nigeria, at Cologne University, he became Professor at Hannover University of Music. Since 2012, he also chairs the Center for World Music at Hildesheim University.

Dr. Ernst Wagner

studied at the Academy of Fine Arts Munich; second study and doctoral degree in Art History, Philosophy and Ethnology; teacher and lecturer at LMU Munich; since 2006, he works as education officer for arts, theatre and film at the State Institute of School Quality and Educational Research in Munich; since 2009, he works at the UNESCO chair for cultural education at Erlangen-Nürnberg University.

Antonius Warmeling

teaches mathematics and chemistry at Fichte-Gymnasium in Hagen since 1978. His "mathematical home" is the association MUED, whose view he shares that Mathematics should also work on real-life problems and enable students to focus on action. This is in line with his commitment to supervise the learning environment Modelling with mathematics, which enables autonomous learning on real-life problems. As this can only work with appropriate tools, he also offers workshops on the use of Excel, GeoGebra and calculators with or without CAS.

StDin Gabriele Wienholtz

Secondary school teacher of mathematics and physics in Bavaria. From 2001 to 2006, she worked in the higher education department of the Bavarian Ministry of Education and Culture, being in charge of subjects and staff.

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