



Core affairs

Germany

Baden-Wuerttemberg and Berlin

Case studies basic education in Europe

SLO • national institute for curriculum development

A comparative study into the motives, functions, resources, design and implementation of common aims and contents of basic education in Europe

slo



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Colophon

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SLO

SLO is the National institute for curriculum development in the Netherlands. SLO was founded thirty years ago by the Dutch government to give independent, professional advice on, and support for, curriculum innovation, development, and implementation. In performing our tasks, we take into account the developments in society in general, both nationally and internationally, and in education in particular. SLO operates in virtually all sectors of education, including primary education, secondary education, special education, vocational education and teacher education, and covers all subject areas. Our central task is to advise the government on important education reforms and new curricula. SLO supports and coordinates curriculum development in collaboration with schools and universities, carries out curriculum evaluations, and provides information about teaching materials.

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Abbreviations used in the text

BP2004	Curriculum (Bildungsplan) 2004 in Baden-Wuerttemberg
BW	Baden-Wuerttemberg
FRG	Federal Republic of Germany
GDR	(former) German Democratic Republic
IQB	Institute for Educational Quality Development (Institut zur Qualitätsentwicklung im Bildungswesen)
LISUM	State Insitute for School Development (Landesinstitut fuer Schulentwicklung und Media) in Berlin and Brandenburg
LS	State Institute for School Development (Landesinsitut fuer Schulentwicklung) in Baden-Wuerttemberg
KM	BW Ministry of Education (Ministerium fuer Kultus, Jugend und Sport)
KMK	Standing Conference of the Ministers of Education and Cultural Affairs of the federal states (Kultusministerkonferenz)
PISA	Programme for International Student Assessment
RLP	Core curriculum in Berlin (Rahmenlehrplan)
SBWF	Berlin Ministry of Education (Senatsverwaltung fuer Bildung, Wissenschaft und Forschung)
TIMSS	Third International Math and Science Study

German technical terms used in the text, and translations

Abitur	Grade 12/13 qualification
Bundesland/Bundeslaender	State/states of the FRG
Facherverbund	Combined subjects
Grundgesetz	Constitutional law of the FRG
Gymnasium	Secondary High School, after primary education until completion of grade 12 respectively 13, also translated as Grammar School
Hauptschule	Basic Secondary School
Landkreis	County
Niveau (in BW)	No translation used (detailed standards)
Realschule	Modern Secondary School
Regierungsbezirk	Administrative region
Stadtkreis	Municipal district
Werkrealschule (in BW)	Basic Secondary School (5years) plus 1 additional year

Please note that no congruent and consistent English translation exists for the secondary streams, and differing translations may be used in other literature. In this report, children attending primary schools are named 'pupils', and young people attending secondary education are termed 'students'.

1 Introduction

1.1 Objectives of the study and research methods used

Starting point

Within the context of its constitutional task, the National Institute for Curriculum Development in the Netherlands (SLO) carries out a comparative research project regarding the motives, functions, sources, design and implementation of common aims and contents of basic education in Europe. Basic education is understood to be primary education and the first phase of secondary education. Depending on specific national and system conditions, it concerns the age group between approximately 3/4 and 14/15 years old. The research activities are based upon the results of a previous project, focused on curriculum development in a (de)centralised context in some European countries.

Curriculum and curriculum development are not just issues that concern schools and teachers; both have a broad impact on and relevance to the sustained development of communities. More than ever, curriculum is, or should be, at the centre of daily life and the responsibility of the society in general. The concept of curriculum has changed over the years. Traditionally curriculum is connected to a more or less prescriptive book or syllabus, defined on a central level. Today, it is increasingly interpreted according to the evocative nature of education. Curriculum provides process-oriented challenges for schools to define their own policies within a global, national framework. The national framework is the point of departure for the research project on 'Core Affairs'. As the name suggests, we are particularly looking for what determines the common core of content. In this report we look from the perspective of two German states (Bundesländer) to curriculum issues and the quality question: Baden-Wuerttemberg and Berlin.

Research objectives

The research project 'Core Affairs' investigates the development, the determination and the maintenance of a common core in education, in a more or less (de)centralised policy context. More specified the researchers in the project look at:

- what are considered to be the common core and objectives in several European countries;
- what sources are being used;
- what considerations take place;
- what motives for choices are used;

- what design features can be discovered;
- what structure is used for describing;
- what strategies play a part in developing, validation, support, implementation, legislation and maintenance;
- what does the common core look like;
- which stakeholders are involved, their level of commitment and ownership, and
- what are the intended and realised effects of common content and mutual objectives.

Research methods and design

Case studies are at the core of this research. A case study is a particular method of qualitative research. Rather than using large samples and following a fixed protocol to examine a limited number of variables, case study methods involve an in-depth, longitudinal examination of a single instance or event: a case. They provide a systematic way of looking at events, collecting data, analyzing information, and reporting the results. As a result, the researcher may gain a keener understanding of why things happen as they do, and what might be important to look at in more detail in future research.

Case studies lend themselves especially to generating (rather than testing) hypotheses. A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2002').

The cases in this study refer to the phenomenon of a core or a common curriculum in a selection of European countries, and within each country, the experiences of some schools with curriculum reform. Standaert (2003²) describes variants in comparative pedagogies and cautions about making too superficial observations based on short working visits, particular regarding schools and the generalisation of specific school experiences. It is because of this apt warning that other research methods are used besides the visiting of cases. Besides case studies, data is collected by Internet search, literature search, document analyses, expert interviews, etc. In addition, international literature (outside Europe) on the research topic will be used. Data collection and analysis also benefit from personal teaching experiences of one researcher in BW (2000-2003), and from personal and informal contacts with teaching and educational staff.

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Research questions

In each case, we investigate the motives, functions, sources, design and implementation of common objectives and contents of basic education. Three

curriculum perspectives (Goodlad, 1994³) are central in framing the research:

- Substantive: focusing on the classical curriculum question about the knowledge most worthwhile to be included in teaching and learning;
- Technical-professional: how to address the task of curriculum development, in this case with regard to core content;
- Social-political: curriculum decision-making process, where values and interests of different individuals and organisations are at stake.

The substantive, technical-professional and socio-political perspectives lead to the following set of research questions:

A. What are the features of the core curriculum for basic education?

Research topics:

- sources for content;
- motives for selection;
- priorities;
- procedures and strategies for development, validation and legislation;
- design.

B. What are the features of curriculum policy in this case?

Research topics:

- involvement of stakeholders;
- role of school inspection;
- role of educational publishers;
- ownership of stakeholders, especially schools/teacher;
- assessment/examination and evaluation arrangements.

C. What are the factual effects of curriculum policy with regard to core content and aims at the school level, and what are the perceptions of stakeholders according to these effects in the case?

Curriculum representations, and focus of research

Another way to look at curricula is to distinguish between three broad distinctions of curriculum representations:

- the intended curriculum, consisting of the ideal curriculum (the vision or basic philosophy) and the formal curriculum (intentions as specified in curriculum

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¹ Yin, R. (2002). Case study research, design and methods. Newbury Park: Sage Publications.

² Staedaert, R. (2003). Vergelijken van onderwijssystemen (Comparing educational systems). Leuven: Acco.

³ Goodlad, J. (1994). Curriculum as a field of study. In: T. Husen & T. Postlethwaite (Eds.) The international encyclopedia of education (pp. 1262-1276). Oxford: Pergamon Press.

- documents and/or materials);
- the implemented curriculum, containing both the perceived curriculum (interpretations by users, especially teachers), and enacted curriculum (as operationalised in the classroom);
- and the attained curriculum, comprising the experiential curriculum (learning experiences from the students' perspective) and the learned curriculum (learning outcomes).

Given the research objective and pilot study, this report focuses primarily on the intended curriculum, and less on the implemented curriculum.

Researchers, countries selected, and respondents in Germany

Core affairs is a cooperative research activity between SLO, the National Institute for Curriculum Development in the Netherlands, and the faculty of Behavioural Sciences, Department Curriculum Design & Educational Innovation of the University of Twente, Enschede. Ramon Leyendecker and Jos Letschert from SLO have carried out the case studies in Germany.

The countries selected for Core Affairs are, in alphabetical order, Belgium, England, Finland, Germany (two Bundeslaender), The Netherlands, Scotland, and Sweden. In these countries, recent interesting and instructive developments in curriculum policy in relation to the research question have taken place. In Germany, we have chosen the two Bundeslaender of Baden-Wuerttemberg and Berlin. The case study and literature research about Baden-Wuerttemberg took place in the autumn of 2007, and the casus Berlin took place in the beginning of 2008.

Interviews are important contributions to the data collection in case studies. The information gained in interviews depends significantly on the response of experts questioned. We are grateful to the following persons for spending much of their valuable time to readily respond to interview requests, hosting us during visits, providing and discussing a wealth of valuable information, supplying documents and other data, and often assisting in additional inquiries.

In Baden-Wuerttemberg:

- 12 Dr. Ulrike Philipps and Dr. Brigitte Weiske from the Landesinstitut für Schulentwicklung, Stuttgart. Dr. Phillipps also critically read a first and second version of the draft;
- Gabriele Traub from the Ministry of Education BW (MK). Gabriele Traub also helped various times with providing back-up information, and as well read first and second

report drafts;

Antje Winkler, primary school teacher, Grund- und Hauptschule Gutach;
Franz Wintermantel, Deputy Headmaster Wentzinger Realschule Freiburg;
Heinz-Werner Brandes, Headmaster Wentzinger Realschule Freiburg.

In Berlin:

Elke Dragendorf, school inspector for Quality Assurance, and Christian Baensch, school inspector and subject specialist for Mathematics, Sciences and Arbeitslehre, from the Senatsverwaltung Bildung and Wissenschaft. Elke Dragendorf replied to various back-up inquiries;

Mascha Kleinschmidt-Braeutigam, Deputy Director of the LISUM Berlin-Brandenburg;

Michael Tlustek, Headmaster of Hannah-Hoeh Primary School;

Dr. Hans-Guenther Bauer, Headmaster, and Joern Lemke, Head of Department and Multiplier for Mathematics, of Wilma-Rudolph Oberschule.

1.2 Educational context, influences and initiation of curriculum reform

Responsibilities and structures

Germany is a Federal Republic consisting of 16 so-called Bundeslaender (states). Education is part of constitutional sovereignty (Kulturhoheit) of each Bundesland (state). The Standing Conference of the Ministers of Education and Cultural Affairs of the federal states (Kultusministerkonferenz, KMK) meets regularly to discuss educational affairs. The federal parliament and the federal government can influence the educational system by providing financial support to the states. Each Bundesland highly values their responsibility for education. Consequently, there are many different school systems. Since decades, the different school systems are the persistent topic of sometimes heated debates about advantages and disadvantages, often representing differences in political and ideological perceptions about education and society. Discussions revolve particularly around the post-primary selection into tripartite secondary education, as compared to comprehensive education, and around the duration of primary schooling.

Figure 1 provides an exemplary and simplified overview of contemporary or planned educational structures in six Bundeslaender. Primary education can be preceded by voluntary Kindergarten or pre-school, and, depending on the state, lasts four or six years. At the end of primary education respectively the orientation phase, teachers counsel parents about the selection of secondary education, of which basically are four options:

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- Basic Modern Schools or Hauptschule, the least academic schools;
- Modern Secondary Schools (Realschule), first established back in the 18th century;
- Gymnasium (Grammar School) until grade 12 or 13 (with Abitur as exit examination after grade 12 or grade 13, qualifying for university);
- Comprehensive Schools (Gesamtschule) with all the options of the three streams above. All states - except Bayern, Sachsen-Anhalt and Thuringen - have Comprehensive Schools, although differing in form and numbers of schools.

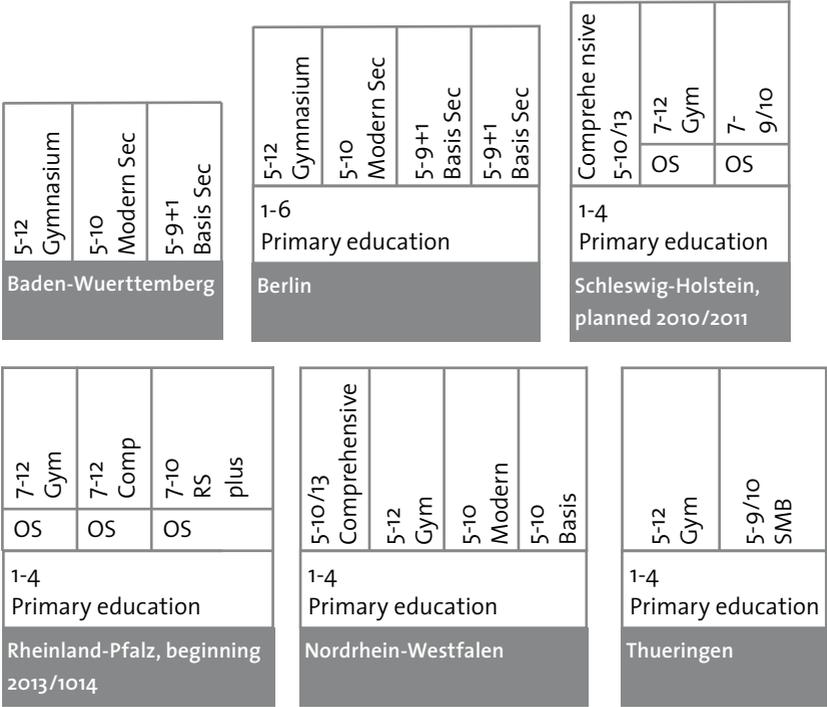


Figure 1: Overview of educational structures in Germany (Source: Erziehung und Wissenschaft⁴)

In four states (Saarland, Sachsen, Schleswig-Holstein and Rheinland-Pfalz), students at grades 5 and 6 attend an orientation phase (Orientierungsstufe, OS) of two years prior to the selection. Grades 5 and 6 of primary education in Berlin and Brandenburg serve a similar purpose. Sachsen-Anhalt and Thuringen only have Gymnasium and Secondary Schools with multiple qualifications (SMB). Similarly, Schleswig-Holstein and Rheinland Pfalz plan for a so-called Regionalschule (SMB) respectively Realschule plus, combining current Basic Secondary Schools and Modern Secondary Schools.

English language is a compulsory subjects for all secondary schools in Germany. In some states, foreign language education commences at the primary level; e.g. English in the 3rd year in Nordrhein-Westfalen; English or Polish in Brandenburg in the 1st year, and English in Baden-Wuerttemberg (except for primary schools near the French border which start with French). The huge majority of primary pupils attend public schools in their neighborhood. The most common alternatives to public schools are Waldorf Schools, Montessori Schools, Independent Schools, Protestant or Catholic parochial schools.

Teachers

Teachers are hired by the States' Ministries of Education, and, after probation period, usually become civil servants. Civil servants are employed for life, may join a union, but do not have the right to go on strike.

Germany employs significantly more female than male teachers (65%). The average age of serving teachers increases from 47,3 years in the school year 2000/2001 to 48,1 years in 2006/2007. It is generally argued that the gender imbalance particularly at the primary and basis secondary level may contribute to a lack of male role modeling for pupils and students.

Brief history of education in Germany

The origins of modern compulsory education in Germany are located in reformation and mercantilism; every person should be able to read the bible and contribute to the welfare and development of the communities. In the cities of late middle age, municipal church schools as well as communal writing schools have been established, adding educational opportunities to those of already existing monasteries schools. Compulsory education was initially introduced in 1763 in Prussia, and slowly spread into other regions. At the end of the 18th century, general education comprised all children in rural and urban areas, and turned out to be a milestone towards the development of a common school system. In 1920, four years of primary education became obligatory as the bases of elementary

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⁴ Im Dickicht der Strukturen. (3/2008). Erziehung und Wissenschaft.

schooling. The reform of the Gymnasium in the same year formalised the shift from a more humanistic orientation to an emphasis on cultural, scientific and language subjects. In spite of ideological and political influences of National Socialism, the main features of the education system largely remained until 1945. After the Second World War, the educational system of the then German Democratic Republic (GDR) became strictly centralised. In the then Federal Republic of Germany (FRG), the constitutional Law (Grundgesetz) of 1949 confirmed that elementary education remains the responsibilities of each of the federal counties (Bundesland).

The so-called Sputnik-shock in 1957 questioned education in all Western countries. The ensuing reform discussions in the FRG resulted in the submission of an Overall Educational Plan in 1973 to develop the educational system. However, political discussions largely revolving around the introduction of comprehensive schools (as compared to tripartite secondary streams) sank most of the ambitions from early beginnings. In the 1980s, the financial costs involved in educational change added to the stagnation in reform efforts. With the unification of Germany in 1990, the former GDR adapted most of the educational structure of the FRG.

Influences and initiation of recent curriculum reform

In October 1997, the Standing Conference of the Ministers of Education and Cultural Affairs of the Federal States of Germany (Kultusministerkonferenz, KMK) agreed on the German participation in international large-scale studies on student achievement. This led to the participation of Germany in the international school benchmarking study PISA (Programme for International Student assessment) and PIRLS (Progress in International Reading Literacy Study) studies. Although PISA results, released in December 2001, differed between German Bundesländer, e.g. results in Baden-Wuerttemberg were better as compared to most other states, PISA revealed that German pupils show below-average performance in central areas, such as reading, Mathematics and the Sciences. The PISA results came as a surprise. They made the headlines in all major German newspapers, and continued almost on a daily base to attract public attention. The conclusions were that German education does not compare favourably with other countries, and education was not as good as it was assumed.

- 16 At the same time as PISA, various educational and socio-political streams and events have come together, influencing the discussion about education in Germany. Although the details of occurrences and the weight they have carried are naturally debatable, the four major issues are the following:
1. Worldwide political changes following the end of the cold war, and with it

globalisation and changes and increases in economic and political interrelations.

The complex consequences and implications of globalisation combine with the increased spreading of new media, altering societal perceptions and values with regard to time, distance, money and work.

2. The rapid expansion of knowledge and its availability, and the subsequent shift in perceptions about learning that are commonly and internationally subsumed as the need for 'lifelong learning' and learning-to-learn'. At the same time, new findings from cognitive sciences contributed to a better understanding about the nature of learning.
3. The developments in technology changing needs and requirements for life and work, e.g. the transition towards a service economy and service society that are of particular relevance for Germany, as it is for many other countries. Analogous to the change, industry and business in Germany have increasingly decried deficiencies in occupation and vocational training that were ascribed to the lack of attitudes, skills and knowledge of school graduates. The issue of capability to participate in vocational education (Ausbildungsfähigkeit) was of particular consideration for graduates from Basic Secondary Schools.
4. The influence of social background on the success in school and for educational opportunities that in no other industrialized country is as decisive as in Germany. At the same time, the integration of children and young people with a migration background is considered as not being very successful.

Ensued by the PISA shock waves, the educational debate intensified in Germany, as it did in almost every European and western-oriented country. It addressed the values of education for individuals as well as for society, and related to issues of talent development and equal opportunities, preservation and transfer of meaningful knowledge and valuable aspects of cultural heritage, social abilities, common values and societal standards. It also related to the wish of stabilisation and reinforcement of the economic position by means of effective and useful investments in education and knowledge development. Unsurprisingly, contradictions about the weighing of interests and concerning the functions of education became visible. In this turbulent environment, the German Ministry of Education on their website (www.bmbf.de/en) highlights the need for educational reform:

"We need a change in the orientation of our education policy. Our school system must lead to a higher performance level and must enable more children and young people to earn higher education qualifications. In schools, the strengths and individual abilities and background of each child must be focused upon.

The competition for future opportunities for Germany has essentially become an international competition for the quality of education systems. An educational reform, therefore, requires a national effort of all stakeholders and a broad debate in society across ideological barriers”.

Curriculum reforms in Germany

Stimulated by international comparative research results as PISA, TIMSS and IGLU, as well as by educational and public deliberations, educational reforms were initiated throughout Germany. Steiner-Khamsi⁵ (2004) claims that, politically speaking, the PISA-results served as a much-needed certificate for accelerating standards-based reforms that already had been in debate for the past few years. Two main features mark the educational reforms: firstly, a curriculum reform with a fundamental shift to competence and standard orientation, and secondly, a close and continuous quality monitoring. The shift represented in curriculum reforms is commonly described as a change from input-orientation to output-orientation. Former curricula in Germany described the input of education, namely the content of teaching-activities. Teachers have had the pedagogical liberty as to how teach these contents. Concluding that a mere input-oriented approach to education does not lead to desired results shifted the orientation to the output, the learning achievements considered necessary to adapt education to an increasingly diverse and interconnected world. International studies and literature, e.g. from OECD and partly related to PISA, discussed and defined desired learning achievements in terms of competencies. In Germany, and partly based on an expertise by Prof. Dr. Eckhard Klieme of the German Institute for International Educational Research (Deutsches Institut für Internationale Pädagogische Forschung), the KMK started to formulate national educational standards. In December 2003, the KMK decided upon national standards for Mathematics, German language and the first foreign language for the so-called Mittleren Bildungsabschluss (Secondary I examination). In October 2004, it was decided to establish standards for the ‘Hauptschulabschluss’ in Mathematics, German language and the first foreign language, and for primary education for German language and Mathematics. In 2004, it was decided to establish standards for the ‘Mittleren Abschluss’ in Biology, Physics and Chemistry. The measurability of competencies through standardised tests is a particularly distinguishing feature of the national educational standards.

18 The national standards were developed by committees of experts in pedagogy and didactics, educational researchers, and school practitioners from all federal states,

⁵ Steiner-Khamsi, G. (2004). Conclusions: Blazing a trail for policy theory and practice. In: G. Steiner-Khamsi (Ed): The Global Politics of Educational Borrowing and Lending. New York: Teachers College Press.

and are based on a consensus about desired student achievement. All 16 states have agreed to comply with these standards, which form the framework for the re-development of curricula.

National and nation-wide educational developments

Parallel to the formulation of national standards, educational reform also included:

- The reduction of Gymnasium school years from grade 13 to grade 12, and introduction of afternoon periods as in many other western countries;
- The introduction and development of All days schools (Ganztagesschule), formally signed in an administrative agreement in May 2003. The federal government allocated 4 billion Euros until 2007 for setting up new schools and expanding existing schools in the German Länder;
- The establishment of the so-called Institut zur Qualitätsentwicklung im Bildungswesen (IQB) within the Humboldt-University in Berlin in 2004 as a national and research-oriented institute for educational progress. The IQB collaborates with individual states as well as with national and international experts and institutions. Its core mandate is to establish national performance scales based on the national educational standards, and to develop the standards further. The IQB also produces large pools of standards-based tasks to support the implementation of standards.

2 Case study Baden-Wuerttemberg: Bildungsplan 2004

2.1 Context Baden-Wuerttemberg

Information about Baden-Wuerttemberg

Baden-Wuerttemberg is one of 16 Bundeslaender (states) of the German Federal Republic, located on the South-western tip of the country. It borders in the West to France (179 km), and in the South to Switzerland (316 km). In Germany, its neighbouring Bundeslaender to the Northwest are Rheinland-Pfalz (93 km), Hessen to the North (171 km), and Bavaria to the East (860 km). Compared to other German states, BW is the third largest in terms of size of land (35.752 km²) as well as in population (10.7 millions). Since its foundation in 1952, the population of BW has increased about 4 millions. With a statistical average of 298 inhabitants per km², BW ranges above the National average (231). 5,45 millions of the population are female, 5,25 millions are male. Approximately 1,2 millions of the population are non-Germans. Of these, about 300.400 are Turkish, 169.033 are Italian, and 78.400 are from Serbia and Montenegro. Regarding the population from 0 to 25 years that includes the educational relevant group of children of school age, 33% have a migration background. Of these, 70% are second or more generation born in Germany.

74% of the population and 80% of employment are located in 18 concentrated areas that occupy 39% of the land. 47% of the BW land is agriculturally used (source: www.baden-wuerttemberg.de/de/Daten_und_Fakten). For years, BW can boast of the lowest unemployment rate in the whole of Germany. Approximately 5 millions of people are employed. In July 2006, the average pre-tax salary of white-collar employees was 3.729 Euros per months, blue-collar employees earned an average of 2.779 Euros.

BW is politically divided in four administrative regions (Regierungsbezirke), 12 regions, 35 counties (Landkreise) and 9 municipal districts (Stadtkreise). There are a total of 1.108 communities (Gemeinden), of which 89 are so-called district municipalities (Große Kreisstädte). The capital Stuttgart is also the largest city in BW (590.000 inhabitants), followed by Mannheim (310.000), Karlsruhe (280.000) and Freiburg (210.000).

Education and educational system in BW

BW has a tripartite secondary school system, with the exception of very few comprehensive schools as remainders of 1970s experiments. After 4 years of common primary schooling, students are selected into one of three streams at the secondary level, namely Basic Secondary Schools (Hauptschule including Werkrealschule), Modern Secondary Schools (Realschule), and Gymnasium (Secondary High Schools, also referred to as Grammar school). For all schools, new cultures of learning and schooling are central to the contemporary understanding of education.

Different sets of profiles and objectives are assigned for primary schooling and secondary streams in BW. Primary schools perceive dissimilarities and varieties in children as opportunities, and individually cultivate the development stage and potential of each child, from slow learner to highly talented ones.

Basic Secondary Schools, including the so-called Werkrealschule, concentrate on the basic scientific-technical education of students. To provide for the development of children with a migration background, the emphasis is on German language including a focus on reading, Mathematics and English as the bases of education. Approximately 16% of Basic Secondary Schools in BW offer the so-called "Werkrealschule", which provides grade 10 as an additional year (see Figure page x). The "Werkrealschule" opens up the opportunity for students to advanced secondary education.

As its German name Realschule indicates, they are understood as a school of realities in the sense of fast, non-ideological and pragmatic adaptation to changing societal contexts. Modern Secondary Schools aim to develop students' personal commitments and creativities as two sides of one coin.

Secondary High Schools (Gymnasium) provide the freedom and space to strengthen education, advance responsibilities, and develop quality. With the introduction of the new curriculum Bildungsplan2004 (BP2004), Secondary High School education in BW has been generally re-structured from nine years of duration to now eight years. The re-structuring has been tried out since 1991, and was incrementally introduced in schools since then.

Special Needs Schools are considered to be an elementary component of the educational system in BW. They offer individual support for students with special pedagogical needs. The various types of schools, e.g. providing special educational assistance, educating blind or visually handicapped, or catering for students with speed impediments, basically orient their curricula on those of regular schooling.

Figure 2 depicts a more detailed version of the educational system in BW. Qualifications are shown in italics. The shaded areas highlight primary education and the tripartite system at the secondary level as the areas of academic education of interest for this report.

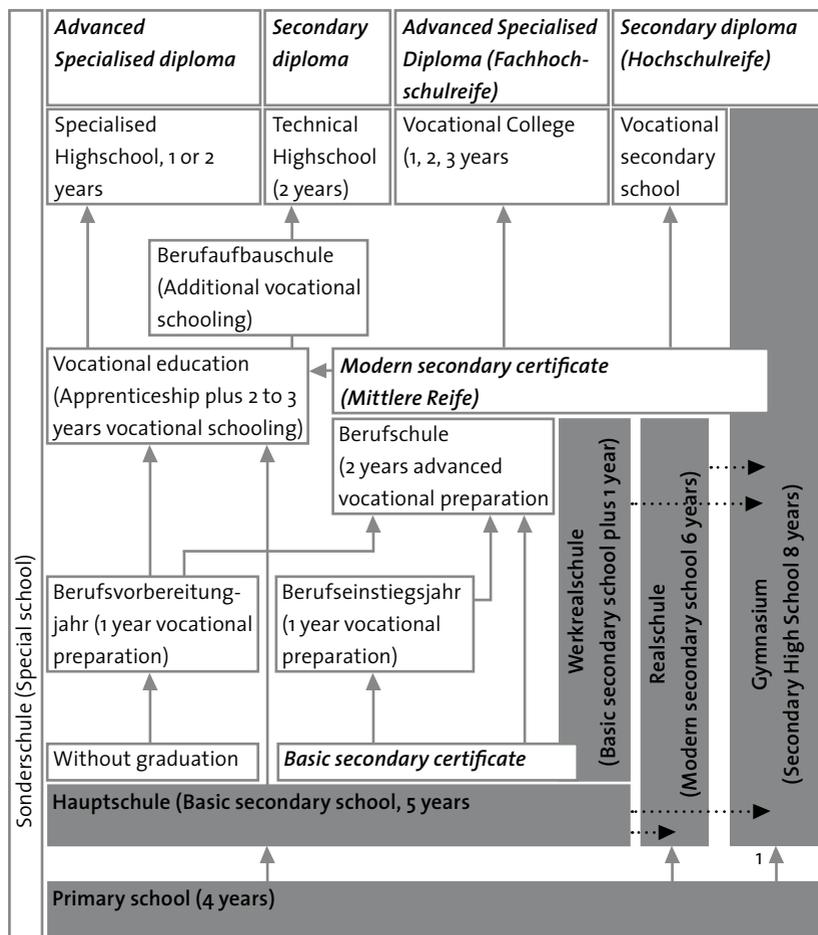


Figure 2: Education in Baden-Wuerttemberg (adapted from Ministry of Education BW, 2007)

The tripartite education system as well as the duration of primary schooling has recurrently become the topic of heated discussions in BW. Ensuing debates about the situation and status of Basic Secondary Schools (Hauptschule), the KM in March 2008 decided on a pilot programme to combine grades 5 and 6 classes of Basic Secondary schools and Modern Secondary Schools.

Educational statistics

A total of 1,291 millions pupils and students have been enrolled in primary and secondary education in BW during the school year 2006/2007. Due to declines in birth rates, it is estimated that these numbers will drop for 23% (295 000 students) until the year 2025. Table 1 provides a more detailed overview of 2006/2007 figures with regard to school level and streams, and the estimations for 2025.

Table 1: Enrolment figures for general schooling in BW 2006/2007 and 2025 (Source: Statistisches Landesamt Baden-Wuerttemberg, Stuttgart, 2007)

	Primary level	Basic Secondary Schools	Modern Secondary Schools	Secondary High School
School year 2006/2007	448.000	183.000	245.000	333.000
Estimated figures for 2025	360.000	123.000	194.000	251.000
Decline in % (rounded figures)	20%	33%	21%	25%

Table 2 shows the 2007 enrolment numbers and gender of teacher students in BW teacher education. The figures for primary school and basic secondary level are combined as they are studying in one course. In the beginning of 2008 the KM decided to separate this combination, and re-organise teacher education for primary and secondary education levels. The date for implementing the change is not specified at the time of writing (May 2008).

Table 2: Enrolment in teacher education BW

(Source: Statistisches Landesamt Baden-Wuerttemberg, Stuttgart, 2007)

	Total numbers	Numbers of female students	Increase in % as compared to the previous year
Primary and basic Secondary	3.743	3.441	Total 3,6% Femal 4,8%
Special schools	853	721	Total 16,2% Female 15,7%
Modern Secondary	2.465	1.770	Total 21,8% Female 23,3%
Secondary High Schools	2.803	1.764	Total 9,2% Female 13,2%
Total for all schools including vocational	11.468	8.646	Total 9,2% Female 10,8%

2.2 Bildungsplan 2004

From Curriculum1994 to BP2004

Following nation-wide discussions and the PISA results, the BW government decided to initiate a fundamental education reform and to develop new curricula for all types of schools. The reform centred on two main features of, firstly, the development of a new curriculum, and secondly, a close and continuous evaluation of education quality. As elsewhere in Germany, the development of the new curriculum was marked by an orientation on competencies. The introductions of 'competencies' are understood to reflect and build upon prior pedagogical and educational conceptualisations, namely the concepts of attitudes, abilities and knowledge. In the curriculum, competencies are delineated in educational standards.

To assist the revision of education, the BW government established an educational council (Bildungsrat) for the duration of the 13th BW legislative period (2001-2006) to provide advise for the development of a new curriculum to follow the Curriculum1994. The Bildungsrat continued consultancies of a previous commission, called 'Society 2000' that had recommended the advancement of education and learning as key issues for individual and societal development. The

selection and composition of the educational council was meant to epitomise leading figures in society and societal stakeholders, in the understanding that education and reform require societal consent about content, knowledge and standards in curricula. The task of the council was to provide advice and input for the core question of curriculum reform: what and how shall students learn?

The KM is the governing body of the educational reform and its implementation. Its main tasks are described as:

- Development of educational policies;
- Government and regulation of implementation;
- Conceptual work;
- Providing the prerequisites for the reform;
- Professional development.

Regarding the development of standards for BP2004, the KM centrally co-ordinated the complete process across subjects and subject combinations for primary and secondary education. The KM department and the respective divisions responsible for each school type (Schulreferat) selected practitioners in the field, on average two to three per subject or subject combination and school type. They produced a first version for each subject/subject combination, and school type. Working groups in the KM met regularly to consistently define standards across streams and thus allow for mobility from one school type to another one.

For primary education and Basic Secondary Schools, 10 benchmarks have been compiled out of the dialogue with the educational council, to specifically support the design of the new curriculum there. The benchmarks, each with detailed sub-markers, (1) emphasise the new curriculum Bildungsplan 2004 (BP2004) as part of a larger educational reform; and articulate and define: (2) new measurements for systemic control to be employed; (3) that subjects shall be re-designed and composed into integrated combinations; (4) the new roles assigned to teachers; (5) re-structured modes of teaching; (6) teaching methods; (7) foundations for education, namely language competencies, sciences and technology; (8) and (9) concepts for cooperation with other educational or non-educational institutions; (10) students' educational requirements.

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For each type of school and for each class-level, the KM selected the standards and the number of standards. As part of the selection and reform process, the curriculum had to be reduced by 1/3 to provide scope and time for the school-specific curriculum component. Due to the different nature and specifics of

subjects, the selection processes and criteria differ. The overall purpose of the selection was to extract principles and mandatory content for each subject. The reduction has been described as a very difficult process, often met by resistance about the out-selection of curriculum content. The task was particularly demanding for Secondary High Schools, as the reduction from nine to eight years of schooling already required to condense the former curriculum.

The draft version of standards was sent in print to stakeholders, e.g. universities, teacher training colleges, state-wide parents association, state-wide school advisory boards, etc. It was also posted on the internet to draw feedback from interested parties. Analysing the responses, the standards for BP2004 have been redrafted, re-submitted for the hearing of concerned parties, until then finalised.

BP2004

In the BP2004, the formal curriculum describes the guiding idea for the achievement of the so-called subject-specific, personal, social and methodological competencies for each subject or subject area, and delineates the compulsory competencies and content of the core curriculum. The educational standards, conceptualised as the first level of BP2004, are stipulated through educational legislation, and provided in print. At the second level, educational standards are developed on different levels to provide planning for teachers to instruct students with diverse abilities and prior knowledge.

Schools and teachers have the task to develop the what, the workplan, with which to achieve the competencies defined as educational standards in the core curriculum. The core curriculum is designed to cover 2/3 of teaching time, and supplemented by the school curriculum covering the remaining 1/3. The purpose of the school curriculum is to deepen and complement the achievement of the same educational standards as represented in the core curriculum, or to eliminate deficits remaining from the teaching of the core curriculum. The school curriculum is also designed to integrate teaching and learning across subjects and subject combinations. Each school has the task and freedom to design their own school curricula as part of their individual mission statement and overall school concept. To be able to respond to different contexts and emphasise individual school concepts, the KM provides a multi-year contingent of periods per subject/subject combination, of which schools may select and specify their own allocation per year.

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As a second level of BP2004, so-called Niveauekonkretisierung (performance indicators) specify the requirements of standards, and define achievement levels into three levels (a, b, c) as guidelines for teaching and learning outcomes. Niveaus

are mandatory regarding their achievement levels, but not regarding the illustrated examples. To keep the detailed niveaus up-dated, they are published on the internet only.

The third level of BP2004 provides successful implementation examples of BP2004, e.g. regarding the combination of subjects (Faecherverbund), or workplans. The third level is not compulsory, and accessible via internet only.

Implementation planning

Pilot schools have tried out and developed the central elements of the curriculum reform. Their experiences have partly been posted on the internet. Parallel to the piloting, multipliers for all school types have been trained to support the introduction of BP2004 in schools through professional development workshops. BP2004 was gradually implemented. With the beginning of the school-year 2004/2005, implementation commenced in grades 1 and 2 of Primary schools, grades 5 and 6 of Basic Secondary Schools, grades 5 to 7 of Modern Secondary Schools, and grade 5 of Secondary High Schools. First graduations following BP2004 were be at the primary level at the end of the school year 2006/2007; for Basic Secondary Schools and Modern Secondary Schools in 2007/2008; for the so-called Werkrealschule (Basic Secondary plus 1) in 2008/2009; and for Secondary High Schools they will be in 2011/2012.

Operationalisation of BP2004

The State Institute for School Development (Landesinstitut fuer Schulentwicklung, LS) is responsible for the operationalisation of BP2004. The LS was founded in 2003/2004 amidst political controversies between government and opposition (Drucksache BW parliament 13/678 of 24.11.2004). The political controversies reflect diverging opinions about the function of the new institute, and education at large. Although with the establishment of the LS the former Landesinstitut fuer Erziehung und Unterricht (LEU) ceased to exist, the LS is not meant as a replacement of LEU only but as an adaptation to new tasks that have developed over the past. Formally, the LS is an independent institute, factually the KM funds the LS, defines and assigns tasks, and many of its members are teachers delegated from the KM. The three main fields of activities of the new LS are described as:

1. Empirical education research;
2. Curriculum development;
3. Quality development.

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Regarding the operationalisation of BP2004, the LS details the standards given by the MKS. Across BW, 120 experts contribute to the detailing of niveaus. During

the time of data collection (October 2007) approximately 1000 niveaus across all school types (200 estimated for primary schools, and 300 estimated for Realschule) have been completed. Practical problems with the development of niveaus occur particularly where the standards (first level of BP2004) are formulated in an open fashion. The LS sees the communication with schools as the most promising approach for solving these problems.

The LS also provides implementation examples. As well, the LS develops and supplies support and curriculum materials. In general, schoolbooks are perceived as to be the main curriculum support material for the implementation of BP2004. The LS used to authorise all schoolbooks, but these efforts have been considerably reduced to a few designated subjects as e.g. History.

To monitor and advance the quality of educational processes and outcomes of schools and classrooms of the core curriculum, BP2004 envisages internal and external evaluations as integral and interrelated part of school-based quality development, and as one component of empirical and systemic quality assurance. With a change in educational legislation (18.12.2006, §114 Schulgesetz), the two instruments have become compulsory, and the LS was tasked with developing evaluation instruments.

Schools are mandated to internally evaluate the quality of schools and instruction. The responsibility for the implementation of internal evaluations rests with the school principal. On request, schools receive external support. The LS conducts the external evaluations, for which schools are required to submit the results and conclusions of their internal evaluations.

As a further component of quality assessment, and seen as part of empirical and systemic quality development, standardised tests are used to measure the achievement of educational standards. Test results are meant to provide schools with comparative data for their internal evaluations, and are also expected to be included in external evaluations. At the primary level, tests are termed diagnostic, and employed at grades 3 to determine pupils' individual achievement of competences in German and Mathematics (cf. VERA, p. x). Results are expected to provide objective feedback to pupils, parents and teachers, without using the test results to make school marks. At the secondary level, the standardised tests as well measure educational achievements of certain competences for diagnostic and informative purposes, but here test results are also being used to generate school marks.

In coordination with the KM, the independent "Landesakademie" conceptually develops, plans and executes professional development for teachers (continuous

teacher education) and heads of schools in general. For the actual delivery of workshops, instructors from both KM and LS are at disposal.

Parallel decisions and developments influencing implementation

Either prior or parallel to the formulation and implementation of BP 2004, decisions made and developments taking place influence the implementation of BP2004. Of these, four are of particular weight:

1. From a management point of view, BP2004 is designated to be cost-neutral, that is not entailing additional costs. This implies as one consequence that for any additional position that has to be allocated because of implementation requirements, another one has to be cut down somewhere else.
2. Implementation requirements of BP 2004 necessitate that schools are provided with more autonomy, e.g. the development of work-plans for the core curriculum, but also for other new tasks and responsibilities, e.g. development of a school curriculum and school specific profiles. To some extent, schools are also allowed to select new teachers, although postings are still done by KM. Arguably, these increases in school tasks and responsibilities build on prior efforts of the so-called Internal School Development (ISE) programme of the mid 1990. ISE was conceptualised by the KM, the participation was non-compulsory to schools, and programmes have been disseminated via multipliers.
3. BW reform of political administration (legislated 30.4.2004) aiming to increase the efficiency of the larger organisation of all political offices. With effect of 1.January 2005, the former four Regional Educational Authorities (Oberschulamt) that have been part of the KM structure were incorporated into the educational departments of Regional Administrative Authority (Regierungspraesidium). Also as a result of the reform, 30 former Local Educational Authorities (Staatliches Schulamt), equally part of the former MKS structure, were integrated as 44 offices into political administration at the municipal or district level. 20 of these 44 offices are staffed with 3 or less educational officers. The total numbers of staff are likely to be further reduced as part of the larger administrative reform efforts. The re-structuring of the educational structures were largely criticised from all corners of society and education. The general perceptions are that while hierarchical levels have increased, the support structure has been weakened. After revising educational administration and effectiveness, the BW government in March 2008 decided to re-establish a total of 21 Local Educational Authorities, expected to be legislated January 2009.
4. The nation-wide establishment of so-called VERA, supported by the Conference of Educational Ministers (KMK), and originating as a Laender-initiative of Rheinland-Pfalz in the 1990. VERA compares the same educational standards

to diagnose classroom attainments across all German Laender for grade 3 at primary level, grade 8 at the secondary level. Primary schools in BW already participated in the comparative diagnosis of learning even before the nationwide establishment of VERA. BW participates in VERA grade 3 tests, and follows up with state-wide diagnoses at grades 6, 8 and 10 (the latter or Gymnasium only) that, however, are designed by the LS.

Implementation experiences

Implementation of BP2004 is a complex endeavour, and the processes are still ongoing. As this report focuses primarily on the ideal and the formal curriculum, data collection regarding the implemented curriculum is limited. What can be said about the implementation of BP2004 is that processes are time consuming, demanding and difficult. Achievements are made gradually. Implementation paths of schools differ, depicting a multitude of different response patterns and implementation experiences. As an overall observation, the multitude of newly assigned tasks and subsequent implications of BP2004 have considerably challenged and burdened schools, and still continues to do so. The main practical challenge seems to be that the development of core and school curricula (as well as school profiles) have significantly added and increased time-consuming administrative and development tasks of schools and teachers. Implementation problems occur primarily where the meaning and transformation of change are unclear, e.g. regarding the paradigm shift from input to outcome orientation, where standards are not formulated precisely enough and thus complicate the formulation of niveaus, or where tasks and processes assigned to schools remain obscure. For some schools, the development of school curricula turned out to be problematic as schools and teachers have misinterpreted the purpose and concept of the school curriculum, confusing it with school profiles. Also, schools and teachers struggle with the need to depart from old practices, which direction to take, and how. At the classroom level, the understanding and practices of standard-based instruction have been identified as the major challenge. Apparently, teachers need to be supported to implement standard-based teaching, and they have been reported to signal this need. The KM has replied to the implementation obstacles with a push for more professional development for which school principals are considered pivotal. During a congress in October 2007, the KM emphasised that the reflection on quality instruction continues to be the key to learning and educational achievements.

3 Case study Berlin: Rahmenlehrplan

3.1 Context

Information about Berlin

Archeological findings indicate that Berlin was already inhabited in the 12th century. Formerly divided by the Berlin Wall separating the Eastern and the Western parts, the city was re-united in 1990. Today, Berlin is one of 16 states, one of three city-states, and also the capital of the Federal Republic of Germany. The governing mayor of Berlin also heads the states' government, called Senat. After the re-unification, the first Senat became elected in January 1991. In a referendum in October 1995, 75% of the ballot voted for a new constitution basing on the one of 1950.

Berlin covers a total area of 892 square-kilometers, has 234 kilometers of boundaries, and lies in the midst of the state Brandenburg. Building cover 40% of the area, 5% are used agriculturally, 30% are forests and recreational areas, and 7% are water. It has 3.6 million inhabitants, of whom 1.67 million are male, and 1.74 million female. 14% are non-Germans. The Gross Domestic Product is 80.600 millions Euros, and the average monthly income 1.500 Euros (7/2006). A total of 340.000 students are enrolled in 1.294 schools, and 133.000 tertiary education students in one of 25 universities.

Educational system

After the German unification in 1990, the schools and school system of East Berlin, formerly German Democratic Republic, have been aligned with the West Berlin system of the Federal Republic of Germany. The West Berlin Senatsverwaltung for Education, Science and Research (Wissenschaft, Bildung und Forschung, SWBF), factually the Ministry of Education, assumed responsibility for the administration and management of all schools in Berlin. As part of the integration, SWBF school inspectors visited schools and teacher in East Berlin schools. Nowadays, after 18 years of common developments including the allocation and reallocation of teachers, it is said that differences that may have existed due to former systems have been alleviated.

Together with Brandenburg, Berlin is the only federal state in Germany having six years of primary education, as compared to four years elsewhere. As an exception, the transitions into so-called foundational (grundstaendig) Gymnasiums are already possible after completion of grade 4. The majority of pupils complete

primary education up to grade seven, and then move to the first secondary level of general education schools. The options at the secondary level usually taking four more years until the completion of grade 10, are Basic Secondary School (Hauptschule), Modern Secondary Schools (Realschule), Gymnasium, or Comprehensive School (Gesamtschule). Figure 3 depicts the core features of the school system and its transitions.

Assessment and graduation: Secondary II qualification (Abitur)							<i>Various streams of vocational education</i>
Sec II	13	Vocational and Technical	Comprehensive Schools			<i>Gymnasium</i>	
	12	Secondary High Schools	<i>(Gesamtschule)</i>				
	11	<i>(Berufliches Gymnasium)</i>					
Examination and graduation: Secondary I qualification (<i>Mittlerer Schlabschluss</i>)							
Sec I	10	Basic	Combined	Modern	Gym-	Com-	Special education schools; physical development, vision, speech, hearing
	9	Secondary	Basic and	Secondary	nasium	prehensive	
	8	Schools	Modern	(Real-		Schools	
	7	<i>(Haupt-</i>	Secondary	<i>schule)</i>		<i>(Gesamt-</i>	
Primary	6	Primary school (with possible transition after 4 years into foundational (grundstraendig) Gymnasium)					Special education schools; learning (Vocational or basic qualification)
	5						
	5						
	4	School beginning phase					
	3						
	2						
	1						

Figure 3: Berlin school system and transitions

Table 3 depicts the number of general education schools in Berlin.

Table 3: Number of general education schools (Source: Senatsverwaltung fuer Bildung, Wissenschaft und Forschung (2007). Schoolstatistic)

Number of general education schools in Berlin							
	Primary schools	Basic Sec	Real-Schule	Gym-nasium	Gesamt-schule	Special education	Total
Public	397	54	62	98	49	88	748
Private	47	3	13	14	49	97 (plus 7 Waldorf Schools 7)	97

Elaborations on schools

Primary schools

Primary education has been re-organized in a school beginning phase comprising grades 1 and 2 as a pedagogically and organisationally comprehensive unit, and grades 3 to 6. Depending on their individual progress and competencies, pupils will continue with grade 3 after one, two or three years in the school beginning phase. After the end of an extended period of preparation, the school beginning phase will be introduced for all primary schools in Berlin with the beginning of the school year 2008/09. Primary schools also may provide comprehensive education across three grades, e.g. from grade 1 to 3, and also from grades 4 to 6. The provision of comprehensive education across grades is partly oriented on concepts from Maria Montessori respectively Peter Petersen.

According to official documentation of the Senatverwaltung fuer Bildung, Wissenschaft und Forschung (SBWF), primary schools facilitate methodical and situational learning for pupils to acquire fundamental competencies in mutually shared classes. Pupils come to schools with highly heterogeneous prior knowledge and experiences, learning conditions and potential, and schools are to provide learning opportunities linking to pupils' individual experiences and learning needs. The aim is to support pupils in their personal development through fostering individual initiatives and creativity, and confidence in abilities. At the end of primary schooling, pupils have developed and acquired competencies allowing for continuation with the first secondary level (Sec I), of which basically are four options. Primary schools provide pupils and parents with recommendations about the selection of Sec I schools. Statistically, these recommendations are realistic

projections, e.g. 95% continue after the probation period at Basic Secondary Schools, and up to 97% carry on after probation at the Gymnasium.

Basic Secondary Schools (Hauptschule)

Basic Secondary Schools comprise grades 7 to 10. Students successfully completing grade 9 obtain the so-called Hauptschulabschluss, and continue with grade 10. Students successfully completing grade 10 with an average mark of 3 or better, calculated from the three subjects German, Mathematics and First Foreign Language, and additionally passing a central examination, acquire the Sec I qualification (Mittlerer Schulabschluss).

Basic Secondary education provide for general and foundational education. The ability to successfully participate in vocational training and education is a focal objective of Basic Secondary education, requiring the recognition of recent and ongoing changes in the world of work, e.g. lifelong learning, the need for changing jobs or residences. At the core of basic secondary schooling are vocational and practical orientations to enable students to acquire the competencies necessary for continuation into apprenticeships or vocational education.

As the students of Basic Secondary schools are composed of highly heterogeneous learners, schools have to be flexible and innovative in the organisation and facilitation of learning. A central task in this respect is to develop a fit between school subjects, individual support, and vocational orientation. To provide for interpersonal and individualized support, classes at Basic Secondary schools are limited. For example, grade 7 classes are limited to 19 students, grade 8 to 20 students, and grades 9 and 10 to 24 students.

Modern Secondary Schools (Realschule)

Students enter Modern Secondary Schools at grade 7 for a 6 months probation period to ascertain their ability for this educational stream. On average, 85% of students continue after probation. Students successfully completing grade 10 and passing the central examination acquire the Sec I qualification. As most Modern Secondary Schools are rather small in size, they allow for direct contact between teachers, students and parents, and subsequently provide for relatively strong identification.

36 Modern Secondary Schools offer compulsory, compulsory optional, and optional education, of which the compulsory subjects amount to approximately 5/6 of instructional time. Core compulsory subjects are German, Mathematics, and a First Foreign Language. Depending on school profiles, students may select compulsory optional subjects from one of four categories: (1) Mathematics-Science including ICT; (2) Second foreign Language; (3) Business studies; (4) school-specific

offers with school-developed curricula in accordance with decisions from school conferences. Commonly, schools have a particular focus or profile, e.g. bilingual education, sports, mathematics-sciences-technology, arts, or languages.

Gymnasium

Education at the Gymnasium consists of two level: Secondary I until completion of grade 10, and Secondary II until grade 12 (since the beginning of the school year 2006/07 for all schools) respectively grade 13 (previous duration except for pilot schools). To adapt to the change, the weekly teaching time has increased between three to four periods. Except for foundational (grundstaendig) Gymnasiums commencing at grade 5 and offering profiles as e.g. classical language, mathematics and sciences, arts or sports, regular admission for Gymnasium is grade 7. Admitted students have to pass a probation period after which approximately 90% continue. In grade 9 and again at the Secondary II level, students select subjects respectively courses from various options. As for other Sec I schools, grade 10 students also participate in the central examination in German, Mathematics and First Foreign Language. For students continuing with Secondary II education and sitting for examinations, a total of 50 subject combinations exist. Language and language options are particular characteristic of the Sec II level of Berlin Gymnasiums, e.g. 12 languages are on offer of which eight combinations of first and second language are possible. Also, 11 schools offer language bilingual education, either with English, French, Spanish or Russian as second language options next to German.

Comprehensive Schools (Gesamtschule)

Comprehensive Schools combine the education of the three previously described Sec I schools types to provide individualized support and integrated education to heterogeneously composed students. Most Comprehensive Schools in Berlin have particular profiles, e.g. in languages, sports, arts, or vocational orientation. Comprehensive schools do not have probation periods. All are organized as whole-day schools, combining regular education with extra-curricular activities. Comprehensive Schools may be interlinked to primary schools and/or Sec II schools. At the time of writing (February 2008), 38 out of 49 public and 3 private Comprehensive schools are linked to Sec II level.

The structurally essential elements of Comprehensive Schools are:

- teaching in integrated core classes and differentiated groups;
- differentiation and provision of teaching in two to four capacity and performance levels in the four subjects German, English, Mathematics and Sciences;
- structuring in differentiated compulsory optional domains, e.g. languages,

- mathematics and sciences, arts, social sciences;
- flexibility in allocating students to differentiated levels. Students are regularly assessed and, where applicable, re-allocated to a different level. Subsequently, Sec I graduations are open-ended until the end of grade 10.

Educational statistics

Table 4 provides an overview of contemporary and forecasted numbers of students enrolment in general education, and their distribution in types of schools available.

Table 4: Number of students in Berlin general education schools (Source: Senatsverwaltung fuer Bildung, Wissenschaft und Forschung, 2007: Schoolstatistic)

Number of students in Berlin general education schools				
Type of schools	2006/07	Estimated 2010/2011	Estimated 2015/2016	
Primary schools	155.099	156.790	147.920	
Basic secondary schools	12.754	11.160	11.440	
Realschule	21.090	18.680	19.320	
Gymnasium Sec I (until grade 10)	39.608	38.500	39.160	
Gesamtschule	30.756	28.440	29.210	
Small classes for students from non-German origin	535	550	550	
Total numbers Sec I (until grade 10)	104.563	97.330	99.680	
Sec II (grade 12 respectively grade 13)	41.190	32.420	28.760	
Special education schools	12.370	11.190	10.070	
Total	313.222	297.730	286.430	

Of these students, 33,3% at primary schools, 42,5% at Basic Secondary Schools, 31,4% at Realschule, 16,3% at Gymnasium, and 26% at Gesamtschule do not speak German as a native language. Within these statistical averages, there are high variations between Berlin districts: for primary education they range from 7,2% to 67,8%; for Basic Secondary from 6,6% to 77,7%; for Realschule from 3,4% to 68,9%; for Gymnasium from 2,6% to 45,1%, and for comprehensive Schools from 1% to 61,8%. Approximately 3/4 of students with a migration background are born in Germany, and most of those are second or more generation.

Table 5 provides the statistical data about teachers per school type. It informs about the absolute numbers of teachers, the distribution in male and female, relative part time employments, and average age.

Table 5: Teachers in Berlin general education schools (Source: Senatsverwaltung fuer Bildung, Wissenschaft und Forschung (2007). Schoolstatistic)

Teachers as per 1.11.2006 in berlin general education school							
School type	Total number	Female in number and %	Male in numbers and %	Part-time in %, Male/Female		Average age Male/Female	
Primary schools	10.153	8.671 (85,4%)	1.482 (14,6%)	14,5%	30,8%	51,0	49,1
Basic Secondary	1.583	1.015 (64,1%)	568 (35,9%)	15,5%	26,4%	50,7	48,1
Realschule	1.430	964 (67,4%)	466 (32,6%)	12,7%	27,3%	52,2	49,7
Gymnasium	5.397	3.308 (61,3%)	2.089 (38,7%)	19,3%	40,7%	50,9	48,6
Gesamtschule	3.380	2.112 (62,5%)	1.268 (37,5%)	15,2%	26,9%	51,8	49,0
Special education schools	2.049	1.667 (81,4%)	382 (19,6%)	13,4%	23,8%	51,2	48,2
Total public schools	23.992	17.737 (73,9%)	6.255 (26%)	16,1%	31,1%	51,2	48,9

3.2 Curriculum (Rahmenlehrplaene)

Point of departure

The new and so-called Rahmenlehrplaene (literally: frameworks for the planning of teaching) in Berlin depart from a consequent orientation on four complex and interrelated competencies, namely subject specific, methodological, personal and social competencies; considered as essential for students to be prepared for current and future demands of society. The orientation on competencies as compared to the former orientation on subject matter implies a significant paradigm shift from

previous pedagogical understanding and educational organisation.

The SBWF regards the Rahmenlehrpläne (RLPs) as an important basis for the quality development of schools. The RLPs define educational standards for each subject of each educational cycle, within which schools and teachers are tasked to design school- and context-oriented instructions. The standards increase schools' obligation to meet specifications, and signify a move towards output-oriented educational control and steering. Standards are also meant to provide information, firstly, for parents to actively support the learning of their children, and, secondly, for students to orient.

The development of the Rahmenlehrpläne

The development for the new RLPs was under considerable pressure from political parties and society, and also forced regarding the time available. The SBWF provided specifications for the development of the new RLPs, and supervised the process, e.g. by appraising draft versions. The SBWF specifications detailed:

- the lay-out format and the list of content for all RLPs to follow a uniform structure;
- the adherence to competence models to advance cooperation and abilities for teamwork and systematic learning, with reference to competencies articulated by the OECD;
- the articulation of standards, with the specification that standards are activity- and student-orientated instruction (handlungsorientiert) and provide exemplary tasks;
- to extract essential subject contents from existing curricula, and to list supplemental subject content;
- the inclusion of cross-curricular aspects;
- the selection and articulation of competencies that allow for bi-lingual instruction;
- the RLPs to be user-friendly, particularly regarding its comprehensibility and readability.

The actual development work was tasked to so-called Institutes for Schools and Media, LISUM. The RLP for primary education was developed in 2003 in cooperation with the institutes of the federal states of Berlin, Brandenburg, Bremen, and Mecklenburg-Vorpommern. Under the overall leadership of the then LISUM Brandenburg, teams from either federal state assumed responsibility for preparing the RLP of individual subjects or subject areas. The RLPs for primary education, in other words the curriculum, are valid for all four federal states, and as such are a remarkably occurrence in Germany.

The RLPs for the Sec II level (Oberstufe Gymnasium) were developed in 2005 as part of a multi-states project identifying a core curriculum, under the leadership of and in co-operation with Mecklenburg-Vorpommern,

The then LISUM in Berlin developed the RLPs for Sec I in 2005, using both the OECD competencies and the educational standards developed from the KMK (Standing conference of States' Ministers of Education) as referential frameworks. For languages, joint European frameworks served as guidelines. The primary and secondary RLPs for English language were developed as a unity, and have been aligned with other international English language curricula.

Searching for available and appropriate competence-models, and actively seeking support from university experts in didactic, the standards were further detailed for each subject and grade, and content and themes allotted. In Mathematics and in the Sciences, the development processes were facilitated, as existing didactical concepts were already competence-oriented.

As elsewhere, the need to reduce curriculum content and the subsequent necessity to select and out-select was a problematic and very difficult task, also because the pressure to legitimise curriculum content varies between subjects. Generally, any reduction of subject content draws concerns about loss of educational quality. More specifically, curriculum developers as well as teachers and other stakeholders differ in their perceptions about the importance of specific subject content to be selected, or out-selected. Some subjects require, to varying degrees, to actualise the curriculum and add new content, e.g. in the Sciences to include scientific findings made over the past decades, or in history and social sciences to cover events of the more recent past.

Advanced draft versions of RLPs were submitted to educational advisory boards (e.g. Landesschulbeirat), and various associations and public stakeholders, e.g. churches, unions, political parties. Advanced drafts were also posted on the internet, offering interested parties the opportunity to provide feedback. RLPs were also tested in schools to analyse its readability and practicability.

The SBWF endorsed and enacted the new RLPs for primary education in 2004, and for Sec I level in 2006. The RLPs have a uniform structure, e.g. chapters for RLPs Sec I level are organised in (1) Introduction about education, (2) Subject and competencies, (3) Description of standards, (4) Topics and content, (5) Assessment. The standards for primary education are articulated in single-levels. Sec I standards are structured in three consecutive levels, of which the first level describes the requirements for Basic Education Schools, the second level depicts the standards

for the Sec I qualification (Mittlerer Schulabschluss), and the third level details standards for Gymnasiums. Comprehensive schools use the first two standard levels for their basic courses, and the third level for advanced courses. For English language, the RLP describes the standards across both primary and Sec I education. Reflecting the distinctions in subject-specific requirements, e.g. regarding the discrimination between specific knowledge as foundational for the spiral-build up of subject understanding on one side as compared to possible variability of topics as an anchor for learning, the RLPs, specify subject content and topics differently. For example, in some subjects at the Sec I level, e.g. the science subjects, Mathematics and Vocational Studies (Arbeitslehre), the RLPs distinguishes between compulsory and optional topics and content. In the languages, the RLPs offer themes, differentiated in compulsory and facultative topics and content. For German, the RLP describes five compulsory themes, and suggests possible topics with which to approach them. For Geography, History, Social Sciences and Music, the RLPs provides themes on three different levels, assigns topics to each theme, and indicates possible links to other subjects.

Initially, the compulsory themes, topics and content of the RLPs should reflect a ratio of 60% instructional time, in the understanding of a core curriculum, with the remaining 40% of instructional time available for optional or additional topics and content. However, this predefinition appears not be upheld any more, at least not regarding the initial ratio.

Parallel and partly related reforms and development

Since the year 2001, a series of parallel and partly related reforms and developments have been enacted.

For primary education, the due date for school beginners has been brought forward to 31st of December each year. Prior to enrolment, the German language proficiencies of children are assessed. Where necessary, additional language courses are offered. After commencing primary education, first graders now participate in flexible classes. In an interest of reliable education (verlässliche Grundschule), all primary schools have to take care of pupils between 7.30 and 13.30 hours as a minimum. In 2005/06, whole day schools of two modalities have been introduced. So-called Open Whole Day Schools, of which are 343 in Berlin, offer early morning care from 6.00 to 7.30 hours; afternoon care from 13.00 to 16.00 hours, evening care from 16.00 hours to 18.00 hours, and even care taking during holidays.

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So-called Gebundene Whole Day Schools, of which are 46 in Berlin, provide for an educational comprehensive concept from 8.00 until 16.00 hours, in which education, educational support and care taking are combined.

At the Sec I level, Ethics education of two periods/week has become compulsory

for all grade 7 students, with the option that students additionally participate in Religious Education or so-called Life Skills. At the beginning of Sec I education in grade 7, learning standards are assessed (Lernausgangslage). Students also participate in the National comparative evaluations of learning standards in grade 8. Grade 10 students sit for the centralised examinations for Sec I qualification. After piloting in one school, 15 more Basic Education Schools offer parental workshops.

Since 2007, the Sec II examinations for core subjects German, Mathematics and First Foreign Language are centralised. In line with national developments, since 2006 all students of Gymnasium grade 7 and previous grades complete Sec II education after grade 12 (with 4 more periods/week). Comprehensive schools students have the option between grade 12 and 13. Fast tracks are available for high achievers to complete their Sec II qualification (Abitur) within 11 years.

Structural reforms for all schools provide headmasters with more responsibilities, e.g. regarding the appointment of relief teachers. Headmasters are given with a financial budget to fill in short-term vacancies, although in reality it appears to be questionable if teachers are available to allow positions to be filled in. Approval of textbooks has been abolished, schools are free to select from available range of products. Publishers produce textbooks according to specified standards.

Implementation

The planning and initial years of implementation for the new RLP in Berlin were marked by two parameters. Firstly, in the conceptual understanding of the SNBW, innovations should be introduced to schools and teachers in manageable doses. Secondly, the implementation and additional implementation tasks had and still have to be organized without additional resources. Consequently, to cater for new implementation tasks, resources have to be re-allocated. Reportedly, limited availabilities of staff and personnel have hampered the provision of implementation support; reconfirming and amplifying previous understandings that implementation processes depend on human and resource intensive support.

The LISUM is the institute charged with curriculum development and implementation. With date of 1.1.2007, the two LISUM of Berlin and Brandenburg were unified in one single institution, located some 20 km outside Berlin in Brandenburg. As a result of both the reform and the unification, the LISUM tasks have been re-structured. The main tasks of the LISUM are now:

- the development of instructional quality, the RLP and the questions for the two central examinations for Sec I (Mittlerer Schulabschluss) and Sec II (Abitur) on the basis of given educational standards;

- development of school- and subject-specific periodicals (Fachbriefe) to support implementation. The Fachbriefe discuss critical and ongoing implementation issues, and are irregularly published by the SBWF;
- engaging in school trials and pilot projects;
- the execution of school- and student contests;
- development of media and multi-medial internet-based support systems for schools and professional development;
- professional development of head of schools and target groups in school administration;
- and, as an important component of implementation, the professional development of regional multipliers.

Previously, so-called Pedagogical Centres provided professional development in centralized workshops. With date 1.1.2007, professional development in Berlin re-organised to regionalized provision under the responsibility of the LISUM. In the new structure, school inspectors select multipliers, the LISUM provides for the train-the-trainer in 8 sessions per year of 4 hours each, and the multipliers are then to provide 4 to 6 times a year regionalized professional development workshops of three hours in the afternoon. Regional workshopss are official events for teachers to attend. The process of shifting and re-structuring professional development is said to have curbed its provision for 6 to 9 months.

With the beginning of the school year 2008/09, the SBWF and LISUM have agreed on seven focal points for the professional development of multipliers, subsequently aimed at teachers. To some extent, these focal points are indicative for the contemporary state of implementation, and also reflect implementation challenges of the past. The seven focal points for professional development are:

- teaching with competence-oriented tasks. Reportedly, this point also includes to additionally provide information about the concepts of competencies;
- new forms of assesement;
- new instruments for diagnosing learning;
- differentiation in instruction;
- learning in heterogeneous groups, and individualized learning;
- development of school curricula;
- inclusion and teaching of cross-curricular issues, e.g. language, communication, environmental education.

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Regarding the implementation of the new reform, all interview partners stressed that dissemination does not equal implementation. Regarding the contemporary implementation status it is said that the theme of the reform has arrived to all

teachers. Responses of schools to the reform so far are, naturally, highly different between individual schools. Across these individual differences, it was remarked that primary schools and Basic Education Schools have greater demand for innovations, and consequently are more eager to implement changes. As an overall observation spanning individual and school-type related differences, three sets of experiences appear to be common to many schools in Berlin.

Firstly, the amount of innovations considerably challenges schools, which do not always know how to respond to the change, and how to approach change processes. For example, as was reported, school development processes are rather incidental for lack of direction and support. Also, schools are given new obligation, and schools and teachers struggle with new demands. On the other hand, schools and teachers are provided with more freedom and responsibilities, which some schools are eager to fill in, while other schools have to adapt. Reportedly, some schools and teachers perceive the reform as putting the blame on them.

Secondly, as a result of the reform, the workloads for schools and teachers have increased significantly, e.g. for the developing of school-curricula, school profiles, including new forms of assessment, and the introduction of new examinations or examination items. Apparently, the time and efforts teachers have to invest for each single intervention have accumulated to maximum capacity levels, or even beyond. Apparently, the development of school-curricula is considered as particularly time-consuming, probably also because the currently available support or support materials do not enough facilitate the processes.

Thirdly, most schools manage to cover the obligatory part of the RLP only, mainly because the new teaching approaches require additional instructional time. For Mathematics it was also reported that while some subject content has been reduced, new content was added.

Concerning the implementation of Mathematics RLPs, schools that have previously participated in the so-called SINUS project were well prepared regarding the development of instruction and education. Reportedly, SINUS facilitated early discussions about of competencies and standards, and enabled teachers to link these concepts to their own understandings of Mathematics. Apparently, for those teachers it was easier, and arguably even welcome to adapt teaching and classroom culture to the new RLP. However, as was also reported, not all schools could afford the time and efforts to participate in SINUS.

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From an overall implementation perspective, the SBWF perceives an incremental systemic improvement as essential to achieve sustained development. Focal points mentioned in this respect are the reduction of unnecessary bureaucracy in schools,

improved planning and allocation of teachers, and the introduction of quality management for the school inspectorate.

For systemic evaluation, monitoring and steering, the SBWF processes and publishes statistical data with a focus on the following five core issues: (1) provision of teaching; (2) cancellation of classes; (3) subject teaching; (4) lack of teaching staff; (5) distances to schools. According to the SBWF, the depths of these data collection and provision exceed other German states by comparison. The Institute for School Quality, ISQ, residing at the Free University Berlin, analyses these statistical data on behalf of the SBWF.

4. Observations and discussions

Context

The quality of education became a societal issue in Germany since disappointing PISA-results shocked the nation. Since then, everywhere in Germany interventions have been initiated, aiming to raise and control educational quality. The Standing Conference of the Ministers of Education and Cultural Affairs of the federal states (KMK) has established so called Bildungsstandards. Nation wide there is agreement about the structural evaluation of these standards. For this assessment task a specific institute has been brought into being, the institute for quality assurance (IQB). The responsibility for quality assurance remains with the Länder.

Education and educational reforms remain a major topic in Germany, as also given expression in recent state elections, for example in January 2008 in Hessen. Ensuing the Hessen elections, nationwide public debate flared up about the so-called G8-reform of Gymnasium, controversially discussing the reduction from 13 to 12 years of total schooling in Western-German countries (in Eastern-German countries Gymnasium traditionally takes 12 years), and to the technicalities of reform. The duration of the school day is another issue of on-going discussions. In most contemporary schools, the majority of education takes place in the morning hours, with some classes mostly of non-foundational subjects scheduled in the beginning of the afternoon. As a consequence of political decisions, the so-called Ganztageschule (whole day school) has become a rising phenomena during the last years, receiving financial support and resulting in experiments with pilots throughout Germany. Apart from other practical challenges, teachers working in Ganztageschulen consider sometimes the extra workload as an argument to move to regular schools.

For decades, a re-curent and politically charged debate revolves around the selection and streaming of students into different options at secondary education level. Depending on the context, the discussion revolves either around when to select, or questions the fact to select at all. In Baden-Wuerttemberg (BW), a recent ministerial initiative requests Haupt- and Realschulen to cooperate at grades 5 and 6.

Curriculum reform

Taking national Bildungsstandards as frames of reference, federal states have initiated curriculum reforms marked by its shift in orientation and articulation from input to output. The new curricula describe the standards/competences to be achieved, and the content to be covered, commonly comprising of a prescribed core, and an extra offering. The development of standards and the selection of

core curriculum content are intrinsically challenging, and have been demanding, time-consuming and communicative processes. The shift from input- to output-orientation and the relative novelty of the task added up to the challenge. Within these generalised observations it became apparent that different subjects have dissimilar fits with competencies. Also differing between subjects are the requirements regarding the selection and out-selection of curriculum content, for example relating to longitudinal learning lines. For some subjects it has been mentioned that the content of new core curricula consist of much more than the intended 2/3, basically effecting that covering the core curricula are full-time tasks. In this respect, in both BW and Berlin particular references were made to Mathematics, indicating that not enough content was out-selected, and that any reduction was countervailed by the inclusion of new content.

Particularly for the curricula of Basic Modern Schools (Hauptschule) and Modern Secondary Schools (Realschule), new curricula include novel subject combinations to increase and foster cross-disciplinary instruction.

With the new reform, schools have been given the obligation to translate and transfer the curricular demands specified by content, standards and competencies to develop their own school curriculum. As an overall observation, the study suggests that the clarity of reform concepts and standards are important factors in defining the difficulty and extent of these tasks. In all schools, both teachers and school administrations invested significant amounts of additional time to develop school curricula, while often also responding to other tasks provided by the larger educational reform, e.g. the development of a school profile, or new forms of examinations.

Although differing between both BW and Berlin, in both states support structures and professional development workshops have been on offer, but schools and teachers seem not always have had enough time to make use of it.

From a present point of view (June 2008), two major phases of the reform process have been completed, namely the design of the curriculum at ministerial level, and the development of school curricula. As reforms of these magnitudes are not short-term events, the implementation of curricula and other reform components are naturally still in progress and on-going. As a general statement across both
50 BW and Berlin, reform and implementation depict a variety of patterns about how schools respond to change. The continuum ranges from schools that readily accept and reply to change demands and new tasks, to others that are more reluctant.

Many schools appear to have been reserved in the beginning, and then adopted a pragmatic approach to change demands and new tasks. Two aspects stand out. Firstly, the proportions of organisational and administrative tasks have increased for both schools and teachers, increasing workloads and sometimes stretching capacities. Secondly, schools and teachers have to adapt to the new roles and expectations, for example and most notably regarding the shift from lower levels of responsibility and autonomy to increased levels as tasked by the reform.

Arguably, the educational reform and the tasking of schools with more responsibilities and autonomy require a shift in the interrelation and communication between educational system and schools, which it may already have resulted in. The indications are that in some schools communication within has also increased.

Concluding on the response of schools, an important element is how schools and teachers perceive the space and demands provided by the reform, for example new levels of responsibility and autonomy, increased workloads, new or altered forms of external accountability as e.g. external evaluations and state-wide testing, and the nature and clarity of standards. The underlying challenge for facilitating change is to find the balance between manageable introduction of new reform interventions, external accountability, adaptations in educational context and conditions conducive to change, and provision of adequate support for schools to maneuver within the space provided. The study also concludes that reform processes require a constant focus on issues of implementation such as instrumentality of reform interventions and acknowledgement of 'cost of practice'.

From the larger systemic perspective it has been shown that large scale reform benefit from clarity about the scope of change, detailed advanced planning, and considerations and attention to issues of implementation. Evaluations about implementation processes and interventions that are also used for systemic feedback can be expected to be of benefit. A clear conclusion of recent reform efforts are that without allocating and supplying of additional resources, e.g. to provide for additional capacity at institutional levels and to allow for allocation of additional time to schools, large-scale reforms of significant scope from its beginning are beset with challenges of how to address and complete vital tasks.

Appendix 1: Subjects and subject combinations of BP2004 in Baden-Wuerttemberg

Table 5 lists the subjects and subject combinations of BP2004. Subject combinations have been introduced for all school types, but are considered particularly appropriate for Basic Secondary Schools. Additionally, all schools have the responsibility to provide for out-of-school education.

Table 5: Subjects and subject combinations BP2004 Baden-Wuerttemberg (next page)

Primary schools	Basic secondary schools	Realschule	Gymnasium
Protestant/ Catholic Religious education	Protestant/ Catholic Religious education/Ethics	Protestant/ Catholic Religious education/Ethics	Protestant/Catholic/ Jewish Religious education/Ethics
German	German	German	German
Mathematics	Mathematics	Mathematics	Mathematics
English	English	English	English
French	French	French	French
Human being - nature - Culture	Substance - Nature - Technology	Sciences	Russian/Latin
Movement - Games - Sports	Economy - Occupation - Health	Geography - Economics - Civics	Phenomena of Nature
	World - Time periods - Society	History	Phisic
	Music - Physical education - Arts	Music	Chemistry
	Basic ICT	Arts	Biology
		Physical education	History
		Technology	Geography - Economy - Civics
		Human being and environment	Geography
		Project: Societal engagement	Economy
		Project: Career orientation	Civics
		Project: Management - Administartion - Legislation	Music
			Arts

Primary schools	Basic secondary schools	Realschule	Gymnasium
			Physical education
			Basic ICT
			Italian/Spanish/ Portuguese/Greek language
			Sciences and technology
			Astronomy
			Geometry
			Computer science
			Computer - Algebra - Systems
			Philosophy
			Psychology
			Literature
			Hebrew/Chinese/ Japanese/Turkish language

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