

德國課程改革與教育標準

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摘要

本研究旨在探索德國教育政策之兩項主要工具－課程和教育標準，聚焦於兩者在學校制度形式、輸入和輸出控制面之相同與相異處。透過此文希能說明德國的課程和教育標準兩者如何相輔相成，以引導教師規劃其教學活動。德國國家教育標準的實施為教育系統的進一步分化，對學校控制不再僅以輸入控制，也以由輸出控制。但教育標準仍不能取代各邦的課程，此為德國學校系統為一大特色，每一邦（16邦：巴登－符登堡邦、巴伐利亞、柏林、勃蘭登堡、不萊梅、黑森、漢堡、下薩克森邦、梅克倫堡－前波莫瑞邦、北萊茵－威斯特法倫邦、萊茵蘭法爾茨邦、薩爾邦、薩克森、薩克森－安哈爾特邦、石勒蘇益格－荷爾斯泰因邦、圖林根邦）各有教育的主導權力。在國家層面，各邦的教育和文化事務部長組成常設會議（成立於1948年，早於聯邦政府之成立，前東德於1990年加入），確立德國有共同的教育目標與結構（如，畢業和學位）。德國教育標準是由此常設會議制定，並於2003年起由16邦的教育與文化事務部長決定採用。

關鍵詞：教育標準、課程、德國、學校控制

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Educational Standards for Germany

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Abstract

The following article presents two major instruments in educational policy in Germany— curricula and educational standards. The introduction focuses on aspects both instruments have in common as well as on their main differences concerning not only matters of form, but also the general idea of controlling the school system via input vs. output. The implementation of national educational standards in Germany can be seen as a further differentiation of the educational system, for the controlling of the school is no longer solely based on the controlling of the input, but additionally underpinned by standards being an element of output-control. Still educational standards do not replace the curricula in the German federal states. A special feature of the German school system is the fact, that every federal state (16 states: Baden-Württemberg, Bavaria, Berlin, Brandenburg, Bremen, Hesse, Hamburg, Lower Saxony, Mecklenburg-Vorpommern, North Rhine-Westfalia, Rhineland-Palatinate, Saarland, Saxony, Saxony-Anhalt, Schleswig-Holstein, Thuringia) has the sovereign power concerning education. On a national level, the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany assures some common structures and goals in German education (e.g., graduation and academic degrees). The

¹ The German term is “Kultusministerkonferenz der Länder”, abbreviated “KMK”. The Standing Conference was founded in 1948, even before the foundation of the state; the states of former Eastern Germany joined in 1990.

Standing Conference is the initiator of the introduction of educational standards in Germany. The decision to implement these standards was made consentaneously by the 16 Ministers of Education and Cultural Affairs in 2003.

Keywords: Educational standards, curricula, Germany, controlling of school

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Educational Standards for Germany

Tradition of curricula— innovated by educational standards?

Curricula² and educational standards³ both are normative types of text— they are prescriptions, and therefore do not describe how reality in schools looks like, but prescribe the desired reality. They both are obligatory for all teachers: the educational laws of the federal states of Germany refer to the educational standards as a basis for lessons.

Curricula as well as educational standards are requirements introduced to the school system by the educational policy. Following Luhmann (2002), one of the characteristics of the educational systems is its need for exterior controlling, as it cannot produce “collectively binding decisions” on its own. They need to be gathered from outside (Luhmann, 2002). The introduction of prescriptions as a type of communication can be seen from different perspectives.

- First, there are the intentions of the sender— the State’s educational policy. This intention can be explored analysing programmatic texts, e.g., declarations on educational standards. Still the intention will not be transparent to full extent. As a system, the system of educational policy is not able to totally communicate its interior operations; instead, they remain foggy to some extent. From a policy perspective of view, curricula and educational standards are a mean to increase the probability of reaching educational goals. In 2005, the Standing Conference claims that the goals of 1973 are still of relevance: This

² In Germany, curricula are called “Lehrpläne”. German “Lehrpläne” are not curricula in the literal sense.

³ The name of Germanys educational standards is “Bildungsstandards”.

“classic” document lists aims of education and starts with the declaration, that knowledge, skills and abilities are to be taught (Kultusministerkonferenz der Länder [KMK], 2005).

- Second, one could ask how the addressees of the regulations perceive educational standards and curricula, for their interpretation is fundamental for the implementation of these regulating documents.
- As a third perspective, there could be asked which functions are fulfilled by educational standards and curricula within the German educational system. Also to be taken into account are the functions the educational system supplies for the society.

Form and Formation of German Curricula and Educational Standards

In this section basic information on terms is given. Therefore, definitions of the specific German term “Lehrplan” (a type of curriculum) and educational standards that are commonly used in Germany are provided and the two concepts are introduced a bit farther. Then a comparison is drawn of both concepts regarding their form on the one hand and their formation and history on the other.

Basic Concepts/Definitions

“Lehrpläne” are curricular texts containing information on the content of classes. Usually, they are given per grade, in some federal states two grades are combined in one curriculum. The variety of curricula in Germany can be seen from the different words used for this type of prescription.⁴ In this article, the most common term is chosen—

⁴ Depending on the region, Germans speak of “Richtlinie”, “Bildungsplan”, “Rahmenplan”, “Stoffplan”.

Lehrpläne. By this term I refer to an official document prescribing which of the cultural knowledge shall be passed to the younger generation at school. This “what” to teach is scheduled in a mix of learning matters and learning targets. Recurring to educational objectives claimed by Wolfgang Klafki, this codification can be described as a combination of recording the contents or learning matters (which example is suitable for the learners) and recording the contents the matters represent (which aspects should the students get to know by these matters). Still Lehrpläne have to be differentiated from curricula used in some parts of Anglo-American world— the German texts do not consider the process of learning (therefore, the terminus “curriculum” is somehow misleading), methods, media, tests to measure the achievement of the students (Neuhaus-Siemon, 2011). Some of the German federal states provide “Kerncurricula”— these normative texts are not in literal sense curricula, but merely Lehrpläne designed according to specific educational goals. The characteristic of Kerncurricula is the lack of concreteness—they explicitly demand the teachers in school to elaborate the details at the specific school site in smaller groups. Like the German curricula of the recent years, a main feature of these Kerncurricula is that they are competence oriented.

Altogether, according to Luhmann and Schorr (1988), the aim of Lehrpläne is “the codification of content”, not of educational objectives, because what is recorded are not “conditions of persons” but the subjects appearing suitable to induce these conditions. This system theoretic description allows drawing a clear line between curricula and educational standards in Germany.

German educational standards are a compilation of domain specific competences learners should have gained up to a prescribed date of their school attendance. By the term Bildungsstandards, the Standing Conference refers to a functional approach to education, which was developed first by Robinsohn (1975). Thereby, education is not taken as a demand of society or a requirement obliging the individual, but as a

responsibility of society to help each young person develop the abilities needed for life in society. While the German curricula focus on teaching, educational standards focus on processes of learning and on their outcome. Considering the idea, that the ways to reach the goal may differ, the German educational standards are not targeting the position of the student within the school system (e.g., grammar school or comprehensive school), but certain points of time in a school biography.

On the other hand educational standards have to be measurable. Competences are defined in a way that makes it possible to evaluate the students' achievements. The core educational standard defined by the Standing Conference is divided into four parts— competences regarding native language, one foreign language, mathematics and science (Klieme et al., 2003).

The term “standard” signifies a value. Educational standards define a value that measures if and when an educational goal is reached regarding predefined criteria and indicators. Indicators are behaviour patterns that show that a student has reached certain criteria. This means that the definition of a standard also signifies the difference between success and failure.

The way of defining standards which was introduced via Bildungsstandards does not concern the content (content standard) nor the process of teaching (opportunity-to-learn standard). It only evaluates the abilities of the students that cannot be accessed directly but can only be deduced via their performance (performance standard). Therefore, German educational standards are standards that only refer to results. The effectiveness of the educational system is evaluated by the results of its students. If the information gathered via the output of the educational system is used to alter the variables input and process, the results of the students could be improved. This is the core logic of the so-called output controlling.

Similarities and Differences

Clear differences between both texts can be stated regarding their authorship and aspects of policy responsibility. Curricula, being decided by the federal states' Ministries of Cultural Affairs, directly reflect the federalism of the German educational system.⁵ Being decided by each federal government on its own, it is quite normal, that the curricula differ from each other. In some of them a strict competence orientation can be found, while other curricula still hold a lot tighter to the contents and matters of learning.

So, while the accountability for the curricula is to the federal States, their Ministers of Cultural Affairs have cooperatively set the mandate to develop educational standards and they engaged a group of educational scientists, psychologists and experts from subject didactics. The experts developed standards for four core subjects; these standards were passed by the Standing Conference of the Ministers of Education and Cultural Affairs (between December, 2003 & December, 2004). Though the educational standards for primary and secondary education⁶ are valid nationwide since the terms 2004/05 respectively 2005/06, the realisation still belongs to the duty of the federal states. So their implementation strategies differed; but all German federal states kept their curricula as well, so now there are different curricula in Hamburg and Berlin as well as common educational standards. Neither of them has replaced the curricula. This indicates that

⁵ The case of the curricula cooperatively developed for primary schools in Berlin, Brandenburg, Mecklenburg-Vorpommern and Bremen (in force since 2004/05) is to a certain extent exceptional.

⁶ The educational standards are valid for intermediate level (Mittlerer Schulabschluss) regarding German, mathematics, and first foreign language since 2004/05; in term 2005/06 the standards for sciences at intermediate level followed, as well as standards for school leaving certificate after grade 9 (Hauptschulabschluss) and standards for the end of primary school). The decision of standards for secondary school qualification (Abitur) finally followed in the year 2012.

both texts differ in their functions, as will be discussed in the third section of this article.

The Structure of German curricula and educational standards

Curricula: The structure of German curricula can be characterized by a number of features. So, German curricula are issued with respect to the type of school. The educational goal of the respective school type is defined on the uppermost level of the curriculum. The next level gives a differentiation of the educational mandate according to the subjects taught at school— on this level, the text explains the contribution expected from each subject to the education of young people. Finally, the marked goals of the subjects are matched with an idea of curricular development and arranged consecutively.

Educational standards: The educational standards for Germany were all created rather simultaneously, following each other in a very short sequence of time. The standards are issued separately in respect to the different subjects and have a common structure divided in three parts. First, the subject's contribution to education is explicated, followed by an explanation of the subject-specific competence model in the second part of the texts. Successively, the existing competence models are being supplemented with models of steps in competence; these have not been developed for all subjects and sub competences yet. In the third part, the facets of competences are explained in detail, and the standards themselves are listed as goals. The competences are verbalized as can-do-standards; they give a list of tasks learners should be able to deal with. The standards are followed by examples illustrating the standards: some exercises are presented to give the teachers and learners an idea what the competences and the levels of demand mean. Regarding the first foreign language, the educational standards are complemented with the steps

of competence of the Common European Framework of Reference for Languages (Council of Europe, 2001).

Similarities and Differences

The structure of educational standards and curricula in Germany are basically similar. Like the curricula, the educational standards have been formulated subject specifically. Similar to the levels of abstraction in the curricula, a segmented structure underlies the educational standards as well. The fundamental difference consists in the point of reference: While the educational standards are focussed on the graduation, the curricula are focussed on one specific year of education. German educational standards define the competences pupils should have developed by the end of their time at primary school, at lower secondary level (Hauptschulabschluss and Mittlerer Schulabschluss) as well as by secondary school qualification (Abitur). In contrast, curricula give information about the time (in which grade) and the place within the school system (at which type of school) knowledge shall be gained. The educational standards are based on the idea, that competences are acquainted cumulatively in a longer lasting process during the years of schooling: Knowledge, skills and abilities are not thought to develop at once; pupils develop them by working through topics and problems, and some facets of competences are prerequisites to others.

History

German curricula: While educational standards mark a caesura in the German school system at the beginning of the current century, the history of curricula is a history of continuity over the centuries. One of the German classic curricula-theoretician, Dolch (1982) explains the formation of curricula by the upcoming of the societal necessity to define educational goals: the idea of incidental learning reached its limits and

was not functional any more to secure societal continuance. According to Dolch (1982), the first curricula can be found in pre-classic Greece, the history of the programmes and canons can be followed throughout antique, medieval and modern age. Despite lots of changes and adaptations, the amount of continuity over the times is significant: neither contents nor structures ever changed revolutionary.

The German terminus Lehrplan is usual since about 1800 (Keck, 2004). From then on it took about 50 years, until the Government (not of Germany, but of the former states, e.g., Prussia) began to control school by implementing curricula, obliging schools to teach according to these regulations. The federal states have kept the authority to issue curricula until now. As curricula are developed and decided by the federal state, the genesis of German curricula follows rather the “bureaucratic model” than the “scientific model” of developing curricula— in the scientific model, mainly scientists are responsible for the development of curricula. Altogether, the German model can be described as a mixture of both ideas: While some experts from science are involved in the curricula committees, the decision of the curricula still remains in the responsibility of the Ministries for cultural affairs of the federal states. Furthermore, the appointments for curricula committees are made by the respective state; most members of the committees are teachers engaged in school or formerly engaged in school and members of the administrative system. In the course of time one can observe periodical variations in the weighting of the positions of administration and science.

Educational standards: Compared to the history of German curricula, the history of educational standards is quite short. The nationwide implementation of educational standards was an implication of the 2002 Standing Conferences decision of national system monitoring for the educational system. To ensure quality throughout the German school system, further measures were taken: a periodic, comparative testing of pupils from all federal states called “Ländervergleich”

(working on the basis of a representative sample) was established and all federal states implemented periodic testing of all pupils in so-called “Vergleichsarbeiten” in 3rd and 8th grade (VERA 3 & VERA 8). Taking part in these tests makes educational standards and their output-orientation visible for teachers: They get information on the results of their pupils. Fundamental for the elaboration of the subject-specific educational standards was an expertise “On the development of national educational standards”⁷ which was assigned by the German Federal Ministry on Education and Research (BMBF) in 2002. This expertise is usually called “Klieme-Expertise”, referring to Eckhard Klieme (Klieme et al., 2003), who coordinated the group of eleven scientists authoring the expertise. These experts were chosen from educational science, pedagogic psychology, educational monitoring as well as from the didactics of the subjects. Based on the recommendations of the “Klieme-Expertise”, competence models were elaborated and standards were set by working groups consisting of teachers and experts from the respective subject didactic.

Merging lines of tradition?

The introduction of educational standards is the first common target for schools in all federal states in Germany— every state consented to this document of obligatory standards for the general school systems. Still the independence of the federal states concerning the educational policy is kept; the way of introducing educational standards indicates the maintenance of the sovereign powers of the federal states— the decision to implement educational standards is one of the federal states’ ministers in the KMK. It is remarkable that there is no direct national interference into federal states’ educational policy, while the process of developing standards and thinking about output control had been pushed on national

⁷ The original title of the expertise is “Zur Entwicklung nationaler Bildungsstandards”.

level: The Federal Ministry of Education and Research initiated the “Klieme-Expertise” before the decision of the Standing Conference, so some pressure was executed on the ministers of the federal states.

Therefore, “nationwide” educational standards were simply added to “state-wide” curricula. At the beginning both of them had merely in common that they were obligatory. From 2005/06 up to now, there can be observed an on-going process of harmonization: Curricula tend to be formulated more and more competence-orientated. One federal state, Lower Saxony, started issuing competence-oriented curricula short after the implementation of educational standards. Our research showed, that this strategy offered advantages for implementing educational standards, for the teachers could not make a distinction between educational standards and their curriculum (specifically called Kerncurriculum in this case). A group of teachers from Lower Saxony tried to define educational standards, and laughingly they said: “Educational standards, that’s the egg from which Kerncurricula emerged.” (Zeitler, Heller, & Asbrand, 2012). From the implementation perspective, the strategy chosen by Lower Saxony seems to be successful, because the teachers do not feel they have to decide between educational standards and curricula, for both appear quite similar to them. This example also shows that the successive approach of standards and curricula is not only of theoretical relevance, but reaches the practice in schools as well.

Curricula and Educational Standards As Means of Controlling the School System

Controlling the school system means to increase the probability to reach the aims of the school system. Therefore, we should follow the question, to what extent curricula and educational standards contribute to fulfilling the societal functions of the school system— enculturation, qualification, allocation and integration (Fend, 2006). According to Fend

(2006), education (“Bildung”, in German) is aligned to two sides— on the one hand, the point of reference is the learning individual, on the other hand education is functional for the reproduction of society. This makes Weniger (1956) address Bildung as “a function of society”. Fend (2006) describes a “double function” of the educational system.

Following the system theoretician Niklas Luhman, curricula can be considered as limiting contingency; this idea can be adapted to the concept of educational standards: Both texts set norms; they allow treating something contingent “what shall be learned” as something necessary “what shall be taught” (Luhmann & Schorr, 1988). The aims and contents of learning are contingent, because of their plurality and the necessity to select some (and not the others). Because of the limited time at school, decisions have to be made; still there are more possibilities than can ever be realized. Theory of curriculum shows, that these decisions cannot be skipped and that they are highly relevant for the development of school.

Three points of relation are taken into account by theory of curriculum: The individual, growing-up person (1) the society he or she lives in (2) and the object or topic of learning, the cultural assets or scientific knowledge. These three aspects have been related in several ways in the course of time (Keck, 2004). For the German tradition of educational science after the Second World War, Erich Weniger’s theory of curriculum (Weniger, 1956) and Saul B. Robinsohn’s theory of curriculum (Robinsohn, 1975) are of prominent importance. The different wording in the German title indicates the different theoretical positions. Weniger (1956) and Robinsohn (1975) suggest different concepts of this relationship, especially in regard to society and science. According to Weniger’s theory, contents of teaching have to be negotiated between different groups and interests in society. The position of the government is considered a neutral power of order, balancing the competition of different societal interests (Weniger, 1956). This position of the state conceptualized as neutral is one of the main critics of his colleagues

from curriculum theory, for example Saul B. Robinsohn. His curriculum theory focuses on a functional concept of education— education means to prepare the conditions for the individual to gain the abilities needed for life in society. So the contents for and goals of learning have to be elaborated in a transparent way under the eyes of the public and have to follow recent developments of science as well (Robinsohn, 1975).

The arguments for German educational standards are quite similarly structured referring to the three points of reference cited above: individual-society-object, cultural assets and scientific knowledge. The main document arguing for the introduction of educational standards in Germany, the Klieme-Expertise, discusses five dimensions of problems education has to deal with (Klieme et al., 2003):

1. The lack of decidability of anthropologic and societal premises: On the one hand, competences for participation in society and culture have to be available for all individuals regardless of their social background—this is the social premise. On the other hand, the possibilities of the individual are invisible without the process of education: the concept of “giftedness” refers to two sides: to dispositions and learning as well as to the promotion of learning— what is known as the anthropological premise.

2. The openness of future regarding individuals and society: Pedagogy is demanded to anticipate future problems and to provide a suitable preparation to the next generation. In short: pedagogy has to react (rather pre-act) today to tomorrows (probable) difficulties. The resulting insecurity cannot be dissolved. Additionally, the learning of students directed to future problems has to make sense in the present.

3. The lack of determination in tasks and demands: For the world of work is changing permanently, the vocational demands to the next generation cannot be anticipated as well. Therefore it is necessary, that young people learn to deal with processes of learning and education not only in school and vocational training but also in continuing education.

4. The plurality of sometimes even conflicting demands: The notions

of educational goals diverge between different stakeholders (politics, science, different groups in society, individuals). According to which requirements shall education prepare the young generation?

5. The surplus of utopia and corresponding problems of realization: A clash is gasping between utopic designs and real possibilities and performances of pupils.

Considering these aspects, the setting of educational standards for Germany as competence standards is argued for as follows:

First, regarding the content, educational standards offer a societal consensus of necessary basic abilities for young people's successful living in society. Two elements seem crucial: On the one hand, the education in respect to values of the society. There is a broad agreement that not only fundamental values should be passed on, but also should adolescents learn to make their own decisions in situations of conflicting values and goals. On the other hand the acquaintance of certain cultural techniques such as reading and writing or dealing with mathematics is such a consensus. The concept of German educational standards is based on this second consensus: Young people shall develop literacy concerning their mother tongue and a foreign language as well as mathematics and science.

Second, the competences of Germany's educational standards are expressed as abilities for acting in different situations. So they focus on the procedural character of acting and the reflexivity of the individual not only to do something, but to make a decision to behave in the one or another way. This concept allows establishing a connection between the German name "Bildungsstandards" and the German conceptual tradition of "Bildung", which is strongly related to the development of the individual. In the German discussion, especially the terminus Bildungsstandards was highly controversial: Some people were afraid "Bildung" could be reduced to four core subjects at school (mother tongue, foreign language, maths and science) or to the competences described by the standards. In contrast to this position and regarding the strong relatedness between

individual and competences as described above, I suggest, the ability to act ‘under conditions of lack of decidability and indeterminateness, openness and plurality’ (Klieme et al., 2003) can be subsumed under the terminus *Bildung*. The German tradition of classic educational theory mentions four views of life⁸, four ways to encounter the world (religion/philosophy, arts, science/cognition and politics). The competences of the educational standards do not directly mirror this classic division, but still offer different, specific ways to make the world accessible (Klieme et al., 2003).

In the end, even the change of curricula and the discussion about the introduction of educational standards contribute to the idea of continuity within the German school system; continuity cannot be described without watching changes. Following Hopman (2000), reforms and reform discourse are attributed a function to stabilize the system. In detail, he argues, that the efficacy of politic and programmatic discourse does not lie in their immediate changing of reality in schools, but primarily in their contribution to ensure the societal legitimation of schooling. Their impact on practice in schools consists in giving a prescribed terminology how practical issues within school can be legitimated from the didactic point of view (Hopman, 2000). For this functioning not only the inclusions of curricula are relevant, but also the exclusions of aspects that are not compatible with the particular curriculum (Hopman, 2000).

Which Functions Are Ascribed to Curricula and Educational Standards?

- controlling (influence of policy)
- innovation (modernisation of the educational system)
- monitoring (surveillance and responsibility of teachers)

⁸ In Germany, these are called „Weltanschauungen“.

- legitimation (justification of planned/realized lessons)
- orientation (in planning lessons)
- exoneration (reduction of the efforts in planning lessons).

Some models try to reduce this variety of functions to two-dimensional settings— Vollstädt, Tillmann and Rauin (1999) differentiate between a function directed to the outside of the school system, the function of legitimation, and a function directed to the inside, the function of controlling. The differentiation between controlling as a top-down-process, which has to be followed by teachers in schools, and orientation as an option of teachers to set and pursue goals is quite weak, as Frühwacht (2011) has pointed out. Therefore, I will not follow this differentiation in this text. Another differentiation is suggested by Wiater (2006); he separates societal functions of political legitimation from pedagogic-didactic functions of orientation within school. This is similar to the classification of Müller (2009); he suggests separating two main functions: controlling and orientation. This simple differentiation will be followed and elaborated in my article, focussing on the functioning of curricula and the functioning of educational standards in Germany.

Societal functions/function of controlling: The societal functions of curricula and educational standards can principally be deduced from the functions of the school system: qualification, enculturation, selection/allocation, socialization/integration of the young generation (Fend, 2006). The part of normative guidelines is to give measures for the fulfilment of these functions. So this group of functions is constituted by the function of controlling and legitimation. The innovation function may be seen as a part of controlling, for controlling itself consists of the dynamics of continuity and change. The function of controlling by politics is also part of this group: educational policy can be seen as a societal sub system representing the interests of society in respect of education and school.

What is expected from curricula as well as from educational standards is to align the school system towards specific goals set

by society— in other words: they are means to control school. But, belonging to different paradigms of controlling, both correspond to these expectations in their own way. Curricula develop their norming impact by declaring goals teachers have to pursue. Curricula thereby define instructional goals. While curricula set goals for teaching, educational standards give competence standards each student should reach. This can be seen as an actualization of the German concept of education (as explained above in the meaning of *Bildung*) with the individual as point of reference: The point is not the transmission of certain contents— merely is learning understood as an active process of the individual developing competences. So no teachers can reach the goals of the educational standards, for only the learners can.

While the function of controlling is directed to the school system itself, the function of legitimation is addressed to the outside. Both curricula and educational standards are means to legitimate processes within school towards society— this legitimation includes accounting for didactic decisions of a teacher in a particular lesson. So not only teachers, not only pupils and their parents are addressees of curricula and educational standards, but other groups in society and the economic system are addressed by these norming documents as well. This is rather comprehensible, considering companies are recipients of the output of the school system when employing graduates. The legitimation towards the outside has consequences within the school system. For example, teachers must be able to justify each of their decisions concerning lessons when asked e.g. by their headmaster. This practice of justification is deeply rooted in the preparation system of prospective teachers. This function of legitimation offers the chance for society to supervise the school system, and it is provided by both texts: curricula and educational standards. Therefore, curricula as well as educational standards can be regarded as means of quality assurance— although mostly only the new standards are considered in the context of the quality debate.

The introduction of educational standards and the new focus on learning and the acquirement of competences implicate some didactic aspects of high relevance. Due to individually different ways of learning, developing competences is a very individual process. In consequence lessons have to allow and foster different ways of learning, too. This means an increase in liberty for both teachers and learners. In the context of the function of controlling, this must be seen as a lack of control and therefore a lesser functioning of the system. But allowing a variety of ways, the justification is guaranteed in a new form: educational standards are more concrete in defining the mandatory output (competences of pupils) as their definitions allow measuring of student competences, and thereby contribute to monitoring the performance of the school system. In the case of educational standards, the competences are operationalized so that the acquisition of the competences can be checked in tests. This inspection of the student competences does not only contribute to the monitoring of the educational system, but also serves as feedback for the teachers: Through the results of the standardized tests, they receive an orientation about the competences of their class. So the function of controlling is complemented by this new element of feedback. This feedback function is becoming more and more important in the German educational system, as not only educational standards are implemented, but also comparative tests, called “Vergleichsarbeiten” (VERA), which are based on the competences described in Germany’s educational standards. Nevertheless, the feedback function belongs to the second group of functions described below.

Pedagogic-didactic functions/function of orientation: Beside the function of controlling, both educational standards and curricula are expected to provide orientation for teachers, learners and their parents. This is about transparency and clarity of goals. To know to which destination the students are on their way is not only helpful for the single teacher in his or her lessons, but also necessary as a base for cooperation

in a team. Regarding the function of orientation, especially the interaction of curricula and educational standards seems to be important for the planning, realization and reflexion of lessons. The intention is to design both targets complementary: curricula should offer ideas about well-proven ways of teaching and learning, about contents suitable for the development of subject specific competences. The core of a curriculum is a progression in learning targets, designed with regard to successional years of schooling.

In contrast to curricula, educational standards are kept much more general, they do not specify the process of learning, but merely give a concise description of desired learning results: Which competences shall be acquired by children and adolescents until up to which fixed point in time of their school career? German educational standards even require further differentiation and information about details, as being provided by the curricula of the federal states and school-based curricula. By offering ideas about processes and contents, these kinds of curricula facilitate the work of teachers. Not every content of learning has to be argued for individually over and over again, because the respective curriculum provides more general justification. So choosing aspects of current curricula, contents do not need to be justified fundamentally; the teacher can refer to the curriculum.

One of the pedagogic or didactic functions of educational standards is the feedback function introduced before. By the acknowledgement of data about the performance of their students and their placement on a continuum of the performance of comparable students nationwide, teachers receive important information on their group of learners. Especially targets that seem far away (as competences to develop by the end of the “gymnasium” at the age of about 18 years) require repeated checks. The results of the students are fed back to their teachers and allow them to evaluate them taking an external point of view. Teachers usually do not have the options for comparison on a level beyond the class itself

or sometimes the school as a whole. By introducing educational standards as mandatory targets for a longer period of time, the principle of quality management is suggested. Feedback about the present state shall be used to make decisions about future actions. The process of planning, realization, check and new decision has to be seen as a circular one. Still these circular processes do not work automatically; the way they work is intransparent and at least fragile (Altrichter, 2010).

Complementary to educational standards for the learning of students the Standing Conference introduced standards for academic studies and vocational training of teachers in 2004 (Sekretariat der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland, 2004). This text provides orientation for people teaching at university and people responsible for the training of prospective teachers as well as for teacher students themselves. The teacher standards are formulated domain specific for educational studies and contain four fields— teaching, educating, consulting & evaluating, innovating. The federal states show different ways of implementing these further standards; they oscillate between being mandatory for universities and providing just additional information.

Vollstädt et al. (1999) call what is usually referred to as “curriculum” the “intended curriculum”, meaning the written text of the valid document. They concluded in their study about curricula in Germany, that there exists a “realized curriculum” as well, and both are not identical. The realized curriculum describes what children really learn at school, in difference to what they are intended to be taught and learn. With this notion in mind, the way to thinking output-oriented controlling is not that far. Discussing the functions of curriculum and educational standards, it can be concluded, that both fulfil the same functions, but the way they do it is different. German curricula and educational standards emphasize different aspects of learning and teaching; I have already mentioned the affinity of educational standards to empirical testing whether the standards

are reached by the students and thereby the mode of quality assurance. When both demands, curricula and educational standards, serve the same functions, it seems likely, that this means an increase of control by the state. For teachers it means that an additional requirement is created—they have to bring both together in understanding as well as in practice.

So far, I have described the intended functions of curricula and educational standards. This description does not allow conclusions about the realization of these norms. We have to direct the view to the reception as well. Observing curricula and educational standards, one side is marked by policy: curricula and standards are normative texts, issued in some certain intention. For the realization of these documents, the other side is important as well: how people addressed by the texts interpret them, how they react to them, how the requirements are implemented in schools. There is no direct relationship between the normative declarations (curricula, educational standards), their meta-texts (curriculum theory) and empirical evidence about the practice in schools. Three aspects have to be considered: First, it cannot be presumed that a target formulated in curricula or educational standards will in fact be reached by the students. Second, the ascription of a function to curricula and educational standards does not mean that they really provide this function. Third, there are also effects of curricula and educational standards that have not been intended. To give an example: When working with new curricula, teachers do not only read these texts but also look for new class books; and the way these books deal with the new curriculum will influence teachers' thinking about it a lot. The probability increases that students get in contact with some subject matters, when it is prepared 'ready-to-teach' in a text book. So the (realized) curriculum is modified to a high degree by the publishers of text books and further pedagogic media for classes. In another respect, publishers of school media have to orient their product lines to current curricula and to educational standards as well, for text books have to get permission by ministries of education of the respective federal state first.

How curricula develop impact, how they are interpreted and implemented, these are questions of empirical research. The findings of empirical research on the implementation of curricula are a bit disillusioning, when coming from the description of new requirements such as educational standards. Often the effects on practice at school are moderate (to put it mildly). As an example, I refer to a science project of the University of Bielefeld on the implementation of a new curriculum in Hessen. The scientists pointed out those reforms of curricula have little impact on school (Rauin, Vollstädt, & Höhmann, 1996; Vollstädt et al., 1999). In regard to the implementation of educational standards, the findings are similar: there is a large gap between intention and effects of the educational standards in Germany (Freudenthaler & Specht, 2005, 2006; Beer 2007; Böttcher & Dicke, 2008; Zeitler, Heller, & Asbrand, 2012).

Outlook— Future, Expectations, Questions

Regarding curricula as well as educational standards in Germany, there is a discrepancy which seems important for the question of the actual controlling of the school system: There is a tension between the mandatory character of both texts on the one hand and the lack of inspection on the other hand. This can be interpreted quite similar to the ‘backwash effect’ with regard to learning: What is learned is only the part of subject matter that is assessed as well. Though teachers are strictly bound to the curricula during their initial training, after the end of these two years, there does not exist a systematic way of surveying whether teachers teach according to the curriculum or not. There is no regular checking whether lessons in one school correspond to the curriculum or not. And there is no check on a national level – whether one federal state provides lessons that are suitable for the students to meet the educational standards. Specifically regarding educational standards, the project VERA

has adopted such function. VERA provides comparative information and is not limited to one federal state. Still the awareness of curricula exceeds the awareness of the existence of educational standards by far. Teachers connect comparative testing in VERA to an inspection of their teaching – and a lot of them do not appreciate it. Nevertheless, no systematic method of controlling the results of VERA is implemented, neither school-based nor on regional or federal level.

Comparing the intentions and expectations about controlling with empirical data of the impact, the conclusion must be: The educational system cannot be controlled to the degree to which it is thought to be; additionally, controlling does not always work the way one imagines (Altrichter, 2010). Learning from results of empirical research on classroom teaching, the question is: How can the findings (e.g., on especially effective teaching for children with special needs) be transformed to a better practice in inclusive classrooms? How can the knowledge about efficacy influence the professional action of teachers and the quality of teaching? This is crucial to the idea of controlling school via output control. One part of the answer lies within teachers being professional agents within the school system; so we have to wonder how teachers can be enabled to implement the paradigm shift from contents of learning to the developing of competences, from input control via curricula to output control via educational standards.

An important aspect, before they can react to them, teachers at first have to perceive the results of their learners in a test based on educational standards. And teachers need a closer look to the feedback of results, they have to interpret the data and to elucidate the conditions explaining the performance of their students in a competent way. The information gathered has to be used for fostering the competences of students—meaning (maybe) lessons have to be changed to provide the best learning conditions for the students. This requires a highly competent staff to deal with the circular process of quality improvement. The circularity is

implied in the model of output control and signifies its innovative power. Considering the uncertainty always entangled in processes of teaching and learning, the continuing questioning of one's own teaching has always been a constitutive characteristic of the teaching profession. And even the question of the competence of learners is not revolutionary. It is a fundamental issue of pedagogic thinking, what children and adolescents should be able to do and what they actually can do. The new aspect is the interconnection of these "old fashioned" pedagogic questions with the implementation of educational standards. The answer to the question of improving teaching quality goes hand in hand with the matter of the professionalization of teachers, concerning both, curricula and educational standards. The crucial condition for better deciding and acting in classes seems to be the knowledge as well as the skills of the teachers. Not only the theoretic knowledge is important, but so are the competences of the teaching staff, and this is a parallel to Weinert's idea of competence, which is fundamental for German educational standards. Beyond cognitive abilities and skills, motivational and volitional aspects have to be taken into account when talking about a change of practice, in the case of teachers: planning and realization of lessons that are increasingly orientated to facilitate the development of competences by the students.

References

- Altrichter, H. (2010). Schul-und Unterrichtsentwicklung durch Datenrückmeldung. In H. Altrichter, & K. Maag Merki (Hrsg.). *Handbuch Neue Steuerung im Schulsystem* (pp.219-254). Wiesbaden: VS Verlag für Sozialwissenschaften. [Altrichter, H. (2010). Development of school and teaching via data feedback. In H. Altrichter, & K. Maag Merki (eds.) (2010). *Handbook of new management in the educational system* (pp.219-254). Wiesbaden, Germany: VS Verlag für Sozialwissenschaften.]
- Beer, R. (2007). *Bildungsstandards. Einstellungen von Lehrerinnen und Lehrern*. Münster, Wien: Lit. [Beer, R. (2007). *Educational standards. Attitudes of teachers*. Münster, Wien: Lit.]
- Böttcher, W., & Dicke, J. N. (2008). Implementation von Standards. Empirische Ergebnisse einer Umfrage bei Deutschlehrern. In W. Böttcher, W. Bos, H. Döbert, & H. G. Holtappels (Hrsg.) (2008). *Bildungsmonitoring und Bildungscontrolling in nationaler und internationaler Perspektive* (pp.143-156). Münster, New York, München, Bern: Waxmann. [Böttcher, W., & Dicke, J. N. (2008). Implementation of standards. Empirical findings of a teacher survey. In W. Böttcher, W. Bos, H. Döbert, & H. G. Holtappels (eds.) (2008). *Educational monitoring and controlling from national and international perspectives* (pp.143-156). Münster, Germany; New York, NY; München, Germany; Bern, Switzerland: Waxmann.]
- Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Retrieved from www.coe.int/lang-CEFR
- Dolch, J. (1982). *Lehrplan des Abendlandes*. Darmstadt: Wissenschaftliche Buchgesellschaft. [Dolch, J. (1982). *Curriculum of the occident*. Darmstadt, Germany: Wissenschaftliche Buchgesellschaft.]
- Fend, H. (2006). *Neue Theorie der Schule: Einführung in das Verstehen von*

Bildungssystemen. Wiesbaden: VS Verlag für Sozialwissenschaften. [Fend, H. (2006) *New theory of school: An introduction to the understanding of educational systems*. Wiesbaden, Germany: VS Verlag für Sozialwissenschaften.]

Freudenthaler, H. H., & Specht, W. (2006). *Bildungsstandards aus der Sicht der Anwender: Evaluation der Pilotphase I zur Umsetzung nationaler Bildungsstandards in der Sekundarstufe I*. Graz: Zentrum für Schulentwicklung. Bundesministerium für Bildung, Wissenschaft und Kultur. [Freudenthaler, H. H., & Specht, W. (2006). *Educational Standards from the perspective of users: Evaluation of pilot phase I of implementing national educational standards on the lower secondary level*. Graz, Austria: Centre of school development, Austrian Federal Ministry of Education Research and Cultural Affairs.]

Freudenthaler, H. H., & Specht, W. (2005). *Bildungsstandards: Der Implementationsprozess aus der Sicht der Praxis (Ergebnisse einer Fragebogen-Studie nach dem ersten Jahr der Pilotphase II)* Graz: Zentrum für Schulentwicklung. Bundesministerium für Bildung, Wissenschaft und Kultur. [Freudenthaler, H. H., & Specht, W. (2005). *Educational standards: The process of implementation from a practical perspective (results of a questionnaire-study after the first year of pilot phase II)*. Graz, Austria: Centre of school development, Austrian Federal Ministry of Education, Research and Cultural Affairs.]

Frühwacht, A. (2012). *Bildungsstandards in der Grundschule: Bildungsstandards und Vergleichsarbeiten aus der Sicht von deutschen und finnischen Lehrkräften*. Bad Heilbrunn: Klinkhardt. [Frühwacht, A. (2012). *Educational Standards at primary school: Educational Standards and comparative assessment from the perspective of German and Finnish teachers*. Bad Heilbrunn, Germany: Klinkhardt.]

Hopman, S. (2000). Lehrplan des Abendlandes— Abschied von seiner Geschichte? Grundlinien der Entwicklung von Lehrplänen und Lehrplanarbeit seit 1800. In Keck, R. W./Ritzi, C. (Eds.):

- Geschichte und Gegenwart des Lehrplanes: Josef Dochs "Lehrplan des Abendlandes" als aktuelle Herausforderung* (pp.377-400). Baltmannsweiler, Germany: Schneider Hohengehren. [Hopman, S. (2000). Curriculum of the Occident— Parting from its history? Main lines of curriculum development and curricular work since 1800. In R. Keck, & C. Ritzi (eds.): *History and present of the curriculum. Josef Dolch's "Curriculum of the Occident" as a current challenge* (pp.377-400). Baltmannsweiler, Germany: Schneider Hohengehren.]
- Keck, R. W. (2004). Lehrplan– Curriculum. In Keck, R. W., Sandfuchs, U., Feige, B. (Hrsg.) (2004): *Wörterbuch Schulpädagogik* (2. Auflage, pp.270-275). Bad Heilbrunn: Klinkhardt. [Keck, R. W. (2004). German 'Lehrplan' – Curriculum. In R. W. Keck, U. Sandfuchs, & B. Feige (eds.) (2004): *Dictionary of school pedagogics* (2nd edition, pp.270-275). Bad Heilbrunn, Germany: Klinkhardt.]
- Klieme, E., Avenarius, H., Blum, W., Döbrich, P., Gruber, H., Prenzel, M., Reiss, K., Riquarts, K., Rost, J. Tenorth, H.-E., & Vollmer, H.J. (2003). *Zur Entwicklung nationaler Bildungsstandards: Eine Expertise*. Bonn Germany: Bundesministerium für Bildung und Forschung. [Klieme, E., Avenarius, H., Blum, W., Döbrich, P., Gruber, H., Prenzel, M., Reiss, K., Riquarts, K., Rost, J. Tenorth, H.-E., & Vollmer, H.J. (2003). *On the development of national educational standards: An expertise*. Bonn, Germany: German Federal Ministry on Education and Research (BMBF).]
- Kultusministerkonferenz der Länder. (2005). *Bildungsstandards der Kultusministerkonferenz: Erläuterungen zur Konzeption und Entwicklung*. München, Neuwied: Luchterhand. [Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (2005). *Educational standards of the standing conference of the Ministers of Education and Cultural Affairs: Explanations on conceptual design and development*. München, Germany; Neuwied, Germany: Luchterhand.]

- Luhmann, N. (2002). *Das Erziehungssystem der Gesellschaft*. Frankfurt am Main: Suhrkamp. [Luhmann, N. (2002). *The educational system of society*. Frankfurt/Main, Germany: Suhrkamp.]
- Luhmann, N., & Schorr, K. E. (1988). *Reflexionsprobleme im Erziehungssystem*. Frankfurt, Germany: Suhrkamp. [Luhmann, N., & Schorr, K. E. (1988). *Problems of reflection concerning the educational system*. Frankfurt/Main, Germany, Suhrkamp.]
- Müller, W. (2009). Lehrplantheorie und Lehrplanentwicklung. In: Apel, H. J., & Sacher, W. (Hrsg.): *Studienbuch Schulpädagogik* (4. Auflage, pp.71-103). Bad Heilbrunn, Germany: Klinkhardt. [Müller, W. (2009). Curriculum theory and curriculum development. In H. J. Apel, & W. Sacher (Eds.): *Compendium of school pedagogics* (4th edition, pp.71-103). Bad Heilbrunn, Germany: Klinkhardt.]
- Neuhaus-Siemon, E. (2011). Grundlagen der Lehrplantheorie und der Lehrplanforschung. In Einsiedler, W., Götz, M., Hartinger, A., Heinzel, F., Kahlert, J., & Sandfuchs, U. (Hrsg.): *Handbuch Grundschulpädagogik und Grundschuldidaktik* (3. Auflage, pp.317-325). Bad Heilbrunn: Klinkhardt. [Neuhaus-Siemon, E. (2011). Fundamentals of curriculum theory and curriculum research. In W. Einsiedler, M. Götz, A. Hartinger, F. Heinzel, J. Kahlert, & U. Sandfuchs (Eds.): *Handbook of didactics and pedagogy for primary schools* (3rd edition, pp.317-325). Bad Heilbrunn, Germany: Klinkhardt.]
- Rauin, U., Vollstädt, W., Höhmann, K., & Tillmann, K.-J. (1996). Lehrpläne und alltägliches Lehrerhandeln. In *Die Deutsche Schule* 88 (1), 66-80. [Rauin, U., Vollstädt, W., Höhmann, K., & Tillmann, K.-J. (1996). Curricula and everyday practice of teachers. In *Die Deutsche Schule* 88 (1), 66-80.]
- Robinson, S. B. (1975). *Bildungsreform als Revision des Curriculums*, 5. Auflage. Neuwied, Berlin: Luchterhand. [Robinson, S.B. (1975). *Educational reform as curriculum revision*, 5th edition. Neuwied,

- Germany; Berlin, Germany: Luchterhand.]
- Sekretariat der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland. (2004). *Standards für die Lehrerbildung: Bildungswissenschaften. Beschluss der KMK vom 16.12.2004 in der Fassung vom 12.06.2014*. Online unter www.kmk.org/filadmin/veroeffentlichungen_beschluesse/2004/2004_12_16-Standards-Lehrerbildung-Bildungswissenschaften.pdf [Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany. (2004). *Standards for teacher education: educational sciences. Decision of the KMK 16.12.2004, revised on 12.06.2014*. Retrieved from http://www.kmk.org/filadmin/veroeffentlichungen_beschluesse/2004/2004_12_16-Standards-Lehrerbildung-Bildungswissenschaften.pdf]
- Vollstädt, W., Tillmann, K.-J., Rauin, U., Höhmann, K., & Tebrügge, A. (1999). *Lehrpläne im Schulalltag: Eine empirische Studie zur Akzeptanz und Wirkung von Lehrplänen in der Sekundarstufe I*. Opladen, Germany: Leske+Budrich. [Vollstädt, W., Tillmann, K.-J., Rauin, U., Höhmann, K., & Tebrügge, A. (1999). *Curricula in everyday life at school: An empirical study on acceptance and effects of curricula in secondary education*. Opladen, Germany: Leske+Budrich.]
- Weniger, E. (1956). *Didaktik als Bildungslehre. Teil I: Theorie der Bildungsinhalte und des Lehrplanes*. Weinheim, Basel, Berlin. [Weniger, E. (1956). *Didactics as theory of education. Part I: Theory of educational contents and curriculum*. Weinheim, Germany; Basel, Switzerland; Berlin, Germany.]
- Weinert, F. E. (2001). Vergleichende Leistungsmessung in Schulen—eine umstrittene Selbstverständlichkeit. In F. E. Weinert (Hrsg.): *Leistungsmessung in Schulen* (pp.17-31). Weinheim, Basel: Beltz. [Weinert, F. E. (2001). Comparative assessment in schools— a controversial matter of course (pp.17-31). In F. E. Weinert (Ed.): *Assessment in schools*. Weinheim, Germany; Basel, Switzerland: Beltz.]

- Wiater, W. (2006). Lehrpläne, Curriculum, Bildungsstandards. In K.-H. Arnold, U. Sandfuchs, & J. Wiechmann (Hrsg.). *Handbuch Unterricht*(pp.169-178). Bad Heilbrunn, Germany: Klinkhardt. [Wiater, W. (2006). Lehrpläne', curriculum, educational standards. In K.-H. Arnold, U. Sandfuchs, & J. Wiechmann (Eds.). *Handbook of teaching* (pp.169-178). Bad Heilbrunn, Germany: Klinkhardt.]
- Zeitler, S., Heller, N., & Asbrand, B. (2012). *Bildungsstandards in der Schule: Eine rekonstruktive Studie zur Implementation der Bildungsstandards*. Münster, Germany: Waxmann. [Zeitler, S., Heller, N., & Asbrand, B. (2012). *Educational standards at school: A reconstructive study on the implementation of educational standards*. Münster, Germany: Waxmann.]