

Teacher education in Germany: traditional structure, strengths and weaknesses, current reforms

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(1) Traditional structure of teacher education and pathways to teaching

The structure of teacher education in Germany and the pathways to teaching are closely linked to the organization and structure of the different school systems in the 16 *Länder*. Thus, the following description of the ‘German teacher education system’ provides an overview of its general features, rather than a detailed description of all its variations¹. Following the primary school, which is a comprehensive school for all pupils, the lower secondary school is vertically tracked. This school system, which can be described as a ‘mixed model’ of a horizontally and vertically structured system is also reflected in the teacher education system. Thus, we can identify vertically differentiated teacher education tracks at the secondary school level (e.g. grammar schools and teachers for *Haupt-* and *Realschulen*) and a horizontally structured, comprehensive teacher education phase for the primary school level. As a result of this mixture of horizontal and vertical structures, there is a multitude of teaching degrees in the different *Länder*, ranging from teaching degrees for a particular type of school (e.g. in Bavaria) or a teaching degree for a combination of different types of schools (e.g. teaching degree for *Haupt-* and *Realschule* in Baden-Württemberg) to teaching degrees for a certain school level (e.g. primary or lower secondary school). Despite the multitude of different teaching degrees, the relevant entry requirement for all university-based teacher education courses is the *Abitur*. As the multi-faceted structure suggests, teacher education in Germany is not a federal issue and is therefore organized and controlled by the 16 *Länder*. In order to guarantee a minimum of uniformity and comparability of teaching education courses and degrees across the whole of Germany, the ‘Standing Conference of Ministers of Education and Cultural Affairs’ (KMK) coordinates structural issues related to schooling and teacher education. However, this does not include the definition of entry requirements, which are defined by individual universities with regard to certain subjects and/or teaching degrees.

Teacher education in Germany is split into two phases. The first phase is carried out within the university and finishes with the so-called ‘First State Examination’ (*Erstes Staatsexamen*). Baden-Württemberg presents an exception in this respect because it is the only *Land* which provides separate ‘universities of education’ (*Pädagogische Hochschulen*) for primary and lower secondary school teacher education. Again, depending on the individual regulations of each *Land*, the first university-based phase can last between 6-7 semesters for primary school teachers and 8-9 semesters for grammar school teachers. There is a tendency in Germany to harmonize the standard period of study between the different teaching degrees (e.g. Baden-Württemberg) and in some *Länder* (e.g. in North Rhine-Westfalia) this has ‘already’ been achieved. This can be regarded as an important step towards the upgrading of the status of the primary school teaching degree because the length of the standard period of study is decisive for later payment as a teacher. With regard to the curriculum of university-based teacher education, future teachers study two or three subjects, which are closely related to a

¹ For a more detailed description and analysis of the teacher education system(s) in Germany see the article by Kotthoff & Terhart (2013), which also serves as a basis for this article, and Bauer et al. (2012). For an overview of the current German school system in general see Terhart (2006a) and Kotthoff (2011).

corresponding academic discipline. In addition, future teachers take classes in educational studies (including school pedagogy, educational psychology, philosophy and/or sociology of education) and serve regular school-based internships. Depending on the *Land* and the teaching degree, these educational courses of study together with the practical teaching placements can make up to 30% of the overall study time.

While the first phase is clearly geared towards the acquisition of academic subject knowledge and the corresponding subject didactics (*Fachdidaktik*), the second phase is more practical and aims at preparing the young teachers for their professional duties and their work at school. The second phase, which lasts between 1,5 and 2 years is independent of the universities and is organized by special ‘teacher training seminars’ and ‘training schools’ supervised by the Ministry of Education of each *Land*. In this phase, during which future teachers receive a moderate salary, the prospective teachers have to demonstrate their abilities in lesson planning, classroom teaching and other duties (e.g. evaluation, school development) involved in a teacher’s job. The performance of the teachers and the development of their competencies is regularly and systematically evaluated and supervised by teachers from the teacher training seminars and the teachers (sometimes the headteachers) of the training school concerned. The ‘Second State Examination’ (*Zweites Staatsexamen*) is awarded after the successful completion of this second phase. Both the first and the second examination, are controlled and administered by regulations which are issued by the Ministry of Education of each *Land* and *not* the university.

(2) Selection, recruitment and professional biographies of teachers

After having successfully passed the ‘second state examination’, the majority of new teachers are assigned to a vacant position by the responsible school administration primarily on the basis of their two examination grades and, to an extent, also on consideration of personal data (e.g. marital status) and/or additional relevant qualifications. Alternatively, and roughly since 2005 (depending on the *Land*), teachers can also apply for vacant teaching positions and the individual school chooses, in co-operation with the local or regional school authorities, the best and/or the most appropriate candidate according to its preferences. In general, teachers in Germany are civil servants and get tenure three years after entering the service. If a newly qualified teacher does not want promotion, he or she can continue teaching throughout their career until he or she reaches retirement, without being officially assessed again. So, in most cases, especially in primary schools, teaching is – as Terhart (2003, 144) put it – a “profession without a career”.

With regard to the professional biography of teachers, German research studies suggest that the first years of service are decisive for the further professional development of teachers (Keller-Schneider & Hericks 2011). It is a well established fact in the research on the professional biography of teachers that newly qualified teachers, as a response to stress and insecurity, often adapt to the level of professional practice and competence they observe and experience when looking at their colleagues. The change from rather progressive attitudes acquired during the initial teacher training to more traditional practices and routines, which primarily aim at the ‘survival in the classroom’ is an expression of a process of ‘re-socialisation’ which happens when moving from the university into the teaching profession. However, as Terhart (2011) points out, more recent studies, which differentiate between different types of newly qualified teachers, indicate that the way teachers cope with stress and insecurities during their first years of teaching depends on their personality traits and on how they come to terms with and make use of professional experience.

With regard to the later phases of teachers' professional development, empirical evidence is much scarcer. According to Herzog's overview, the rather general and universal models of teachers' professional development, which were developed in the early years of research on teachers' professional biographies, have been replaced by much more sophisticated and differentiated models, which take account of specific biographic phases and/or specific groups of teachers. The traditional assumption that the teaching career will inevitably reach a 'bitter end' because teachers are experiencing increased stress levels, while their general well-being is decreasing has to be questioned (Herzog 2011). This is partly due to increased life expectancy in general, but also to different work patterns in the teaching career (e.g. lateral entry employees, sabbaticals, increasing part-time employment).

(3) Strengths and weaknesses

The analysis of the official guidelines, curricula and objectives of teacher education suggests that the traditional initial teacher education in Germany appears to be a highly elaborate and systematically structured system: To enter teacher education, candidates must have earned the highest school-leaving certificate. During the first phase all teachers are educated in universities in a broad range of relevant academic disciplines for, in reality, five to six years (including the exams), they then undergo an additional practical preparation phase of 1,5 to 2 years, are required to pass two state examinations and, following a short period of teaching practice, they finally obtain tenure. Based on the analysis of the official teacher education regulations, curricula and objectives and seen from an international comparative perspective, teacher education in Germany seems to be a very sophisticated enterprise. After their rather elaborate teacher training, teachers in Germany receive – in international comparison – relatively high monthly salaries (OECD 2005) and after their active working life their pensions are - compared to similar professions in Germany – also quite high.

A further strength of teacher education in Germany is that it can be described as a well thought-through combination of the two main models of teacher education in Europe (Moon et al. 2003), which tries to combine the advantages of both models. The first university-based phase of teacher education in Germany can be characterized as 'concurrent', because all elements (i.e. subject knowledge, pedagogical content knowledge, educational studies and some school practice) are studied from the beginning. However, if we take into account the whole process of initial teacher education (i.e. the first and second phase), we can also perceive a 'consecutive' structure: while the first university-based phase is theory- and knowledge-oriented, the second phase is practice- and skills-oriented (Terhart 2003). This 'mixed model' of a combined concurrent and a consecutive structure is quite unique in Europe and could in principle, as the OECD put it in its 'country note' on Germany, produce a high quality teacher education:

This institutional framework provides an exceptional opportunity to link important parts of teacher education directly to school practice and the development of teacher careers, starting with the induction period. In particular, the capacity of the second phase to react to the needs of schools is a major strength of the German system (OECD 2004, 28).

However and in spite of these rather favourable underlying conditions, the quality of teacher education in Germany has been an object of discussion for many years. While some of these problems were identified more than 20 years ago and have been characterized as 'structural' (Terhart 2006b), others have gained attention more recently through the publication of 'new' empirical research findings on teacher education (Terhart, Bennewitz & Rothland 2011). Among the structural problems Terhart (2006b, 2008) highlights the following issues:

- *Fragmentation of teacher education*: teacher education in Germany consists of many different fields of study (e.g. subject knowledge, educational and didactical studies) and is carried out at different institutions (e.g. university, schools, teacher training seminars). This fragmentation with regard to the content taught and the variety of institutions leads to discontinuities in the learning process and is an obstacle to efficient cumulative learning, because the different subjects, phases and institutions of teacher education are not closely aligned to each other. This leads to ruptures and/or repetitions, which can lead to an extended duration of the teacher education and might be responsible for the relatively high average age of teachers entering the service, which in the late 1990s was almost 32.
- *Professionalism and/or academic subject knowledge*: the first phase of teacher education, which is based at universities, is not very closely directed and oriented towards the needs of the later teaching position. Thus, it is claimed by critics that it does not provide the teachers with the necessary professional skills. The subject knowledge, especially for grammar school teachers, is still very much orientated towards the corresponding academic discipline rather than the school subject and its didactics. Educational and didactic studies which should be the core disciplines of initial teacher education seem to be rather arbitrary and dependent on the individual preferences of the tutors and lecturers.
- *Exit exams and entry to the profession*: the fragmented nature of teacher education in terms of curricular content and the institutions in charge of delivering it is also consequently reflected in its fragmented exit exams at the end of the first phase, which can consist of up to 10 different exams in the different subjects, for each of which students prepare and then reproduce up to three different themes. Access to the profession is traditionally granted on the basis of the two final grades in the first and second state exams on the assumption that these grades have a prognostic significance for later professional success. Some *Länder* like North Rhine-Westphalia and Baden-Wuerttemberg allow for direct application to individual schools and grant individual schools a certain influence when selecting and recruiting teachers.
- *In-service training of teachers*: while the system of initial teacher training is very ambitious and expensive as far as time and money are concerned, the system of in-service teacher education is only rather poorly developed. When compared with in-service training arrangements in other countries (e.g. Canada, Finland, England and the Netherlands), it seems that traditional in-service teacher training provision in Germany is rather random, focused on specific areas (e.g. teaching methods, use of multimedia) and mainly based on individual acts of choice by individual teachers. In-service training is compulsory, but exactly how teachers fulfill this obligation is entirely up to the individual and is not prescribed in detail either by the school or the relevant school authority.
- *Federal responsibility of teacher education*: the length and proportion of educational and didactical studies differ considerably among the 16 *Länder*. Until recently student teachers in the Southern *Länder* of Germany who wanted to teach at a *Gymnasium* had to devote just 5% of their total workload at the university to this element of his teacher education, while her/his Northern counterpart devoted around 25% to educational studies. In general, all *Länder* accept the teacher certificates which have been awarded in a different German *Land*. However, in certain cases, problems arise if teachers want to move from one *Land* to another. This limited flexibility is further restricted through the fact that the different teaching degrees are traditionally strongly connected to certain types of schools (e.g. primary, vocational or grammar schools), which prevent teachers from moving from one type of school to another.

(4) Current debates and recent reforms

In addition to these well-known 'structural' problems, there are 'new' areas of concern which have entered the current educational reform agenda as a result of intensified empirical research on teacher education in Germany (cp. Terhart, Bennewitz & Rothland 2011). The current debates can be said to focus on two areas of concern in particular.

The first area of concern refers to the *quality and effectiveness of different phases of teacher education*. The available empirical research evidence on the quality and effectiveness of different phases of teacher education is highly diverse and varied in terms of quantity and quality depending on the phase under consideration. If we look at more recent studies, which try to measure by objective tests and competence scales what students and teachers have actually learned in the first university-based phase of teacher education, and what they have learned for their work as teachers, it is, according to Czerwenka & Nölle (2011), almost impossible to identify consistent and significant empirical findings. This seems to apply even to those parts of the university-based first phase, which are highly regarded by past and present students, i.e. practical school-based teaching internships. Following Hascher's analysis of the available empirical studies on the effectiveness of school-based placements during the first phase of teacher education, there is some evidence which suggests that school-based internships are not necessarily the panacea to improve teacher education (Hascher 2011).

The empirical evidence on the effectiveness of the second phase, i.e. the teacher induction phase, is also quite heterogeneous. Again, as in the first phase of teacher education, most empirical studies on the teacher induction phase rely on post-hoc judgements and self-estimations of teachers and teacher trainers. According to studies by Schubarth et al. (2005), the experiences of the former students/future teacher in the induction phase are very ambivalent. On the one hand they appreciate the development of professional and relevant competences in this phase, on the other hand the preparatory phase is experienced as very strenuous because the newly qualified teachers feel quite insecure in their new position. In their training schools they have to act as teachers; in the teacher training seminars they are still learners. However, newly qualified teachers do not only experience this insecurity during their work in the classroom and in the staff room, but also in relation to their teacher trainers. This is due to the rather awkward 'double' role of the trainers, who are advising the newly qualified teachers on the work of a teacher, while at the same time evaluating their professional development and performance. At the end of this phase the future teachers think that they have gained competences in teaching and in classroom management, while they do not feel very confident about their acquired competences with regard to school development and/or dealing with parents (Döbrich & Abs 2007).

The second area of concern which can be said to have the most far-reaching implications for teacher education in Germany is the implementation of the so-called *Bologna process in teacher education* (Kotthoff & Denk 2007). There is currently a wide-spread view in Germany that the Bologna process, which was intended to harmonize European Higher Education, to increase the transparency of study requirements and to thus support the flexibility and mobility of the students, has failed to reach its aims in Germany, particularly in the field of teacher education (Arnold & Reh 2005, Tillmann 2007). However, while the early observations of an ever-increasing diversity in German teacher education were mostly based on single case studies or universities, there is now increasing empirical evidence, which strongly supports this observation (Bellenberg 2009, Bauer et al. 2011). In the most recent study by Bauer et al. (2012), which analyses the heterogeneity of teacher education study programmes in twelve German universities which prepare students for teaching in the grammar school (academic track), the authors conclude:

The results corroborate the hypothesis that the study structures of current teacher education programs are largely heterogeneous. Particularly, we found that programs differ regarding

their focus on academic subjects versus profession-oriented studies and their ranges of required studies in subject education (6-25 CP) and internships (6-38 CP) (op. cit., 102).

The impression of increasing diversity in teacher education is strengthened if we look underneath the highly heterogeneous surface of the university-based study programs at the structure of the different teacher education models which have been established in the 16 *Länder* since the ratification of the Bologna treaty in 1999 (op. cit., 105-106). This mixture of diverse models and developments has caused severe criticism in Germany (e.g. Keller 2010, Keuffer 2010) and has led to a situation, in which the structural differences between teacher education models in the 16 German *Länder* are currently bigger than before the start of the Bologna process in 1999.

Against the background of these two main areas of concern several reforms have been implemented in recent years, which have 'already' changed teacher education courses at all levels and phases quite considerably. The first reform agenda can be summarized under the umbrella term 'standardization' and concerns primarily the development of competences and standards for teacher education. Given the extent of the structural differences between the 16 *Länder*, the development and implementation of standards for teacher education, which had already been suggested by the 'Mixed Commission for Teacher Education' in 2000 (Terhart 2000) and were passed by the KMK in 2004 (KMK 2004), is one of the most remarkable reforms of teacher education in Germany. The standards result from a comprehensive picture of the central duties and necessary competencies of teachers and describe, in concrete terms, which competences and skills are expected from qualified teachers. The standards are defined as a hierarchy of competencies at the end of the first university-based study phase and at the end of the second primarily school-based preparatory and induction phase. By defining standards, the necessary competencies and abilities are presented in a differentiated and controllable way and are therefore suitable to not only systematically link the first with the second phase of teacher education, but also with the in-service training measures during the teachers' further professional development. A second advantage of standards for teacher education is that in the course of their development new functions and competences of teachers, which had until recently been neglected or overlooked (e.g. school development, and self-evaluation etc.), are now appropriately reflected in the education and training of teachers.

The process of harmonization of teacher education in Germany was also pushed forward by the KMK, which did not only define the above mentioned obligatory standards, but also set priorities with regards to the contents of the teacher education in the very same document (KMK 2004). The same applies to the KMK document on subjects and subject didactics (KMK 2008), which also consists of definitions of obligatory contents, which apply to teacher education in all 16 *Länder*. A final initiative which has to be mentioned in this context is the so-called *Quedlinburger Beschluss* (KMK 2005), which lays down obligatory regulations for the mutual recognition of BA and MA courses in teacher education between the *Länder*. However, in spite of all these KMK initiatives to harmonize teacher education in Germany, it is still too early to predict how exactly these initiatives and documents will eventually shape teacher education in the 16 *Länder*.

The second reform agenda can be described as the 'professionalization' of teacher education and aims at orienting teacher education more directly towards the future teaching career and the acquisition of relevant professional competences. This development presents a challenge to the self-image of German universities, which are traditionally focused on the transmission of academic subject knowledge ('science') rather than the direct and practical preparation for a professional career. If teacher students are supposed to acquire relevant professional competences and skills already in the first phase of their training, the university-based phase needs to provide learning opportunities with relevance to the later teaching career. In addition, if the acquisition of professional competences also

includes the use and performance of those practical skills, students need to be enabled to act in learning scenarios, which allow them to use and to apply their acquired competences in real-life situations (Bosse 2012).

If we transfer these principles to the practical design of university-based initial teacher education courses, student teachers should be involved in simulated or real action situations which challenge their knowledge and routines. This can be achieved through the use of case studies and various forms of problem- and/or inquiry-based learning. Although the concept of inquiry-based learning is well established and has a relatively long tradition in German universities (Huber 2004), it has not yet been used very often as a guiding principles in the construction of initial teacher education in Germany². According to Keuffer, the expectations that are attached to the concept of inquiry-based learning in teacher education are very high: “Student teachers are supposed to reflect the ‘theory-practice-problem’ at a very high and sophisticated level and their reflective and inquiry-based attitude towards teaching and schools is supposed to persist beyond the second practical phase of teacher education into their later professional career as a teacher” (Keuffer 2010, 21). In summary then, the ultimate aim of establishing forms of inquiry-based learning in German teacher education is an increased professionalization of future teachers, which can be described with two internationally well-known concepts - these are ‘teacher as reflective practioner’ and ‘teacher as researcher’.

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² The University of Bielefeld, where inquiry-based learning plays an important role in the case study module, presents an exception in this respect (Keuffer 2010, 61).

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