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Attracting, Developing and Retaining Effective Teachers

Supplement to the Country Background Report for the Federal Republic of
Germany

This report was prepared for the Standing Conference of the Ministers of Education and Cultural Affairs in the Federal Republic of Germany (KMK) as an input to the OECD Activity *Attracting, Developing and Retaining Effective Teachers*. The document was prepared in response to guidelines the OECD provided to all participating countries. The guidelines encouraged the author(s) to canvass a breadth of views and priorities on teacher policy issues. The opinions expressed are not necessarily those of the Standing Conference, the OECD or its Member countries.

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PRELIMINARY REMARKS

1. The Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (Standing Conference) presented a Country Background Report as part of the OECD Teachers' Activity in preparation of the OECD review visit. The objective of the present paper is to look at some aspects of that report in greater depth and to bring out a number of key issues which arise from the perspective of the authors. They relate to current developments in teaching and the qualification of teachers in the context of current school policy developments. The paper does not contain any proposals for a revision of the Standing Conference report and does not aim to replace it. In view of the brief time available to the working group, the issues raised can in many cases only be touched upon. The necessarily generalizing statements cannot do justice to all individual cases. A comprehensive clarification of the empirical findings was not possible within the set time-frame. Here the situation in Germany is comparable to the one set out in the Country Background Report for Switzerland: a wealth of thematically and regionally restricted individual studies are available which often, however, do not allow a judgement as to the extent to which the information they contain can be generalised. With regard to many aspects there is an absence of comprehensive and systematically prepared information which could provide a solid basis for political action. This situation may also be a consequence of education in Germany being a discipline which traditionally has tended towards the humanities and has operated primarily on a normative rather than empirical basis, something which has determined both teacher training and the implementation of education policy. Measured against the situation in other countries, empirical research and the economics of education in Germany are in need of a high degree of development efforts. It is therefore one of the most important initial results of the education policy debate in Germany, triggered by the international comparative studies on student performance (TIMSS, PISA), that the Standing Conference decided on creating systematic education reporting, and the German Research Foundation (DFG) has created its own focus on promoting empirical education research and academic new blood. At the same time this brings education research and education policy in Germany closer together again which after disappointed hopes of collaboration went their separate ways for a long time.¹

1. SCHOOLS AND TEACHERS IN THE GERMAN AND EUROPEAN UNIFICATION PROCESS

2. Education policies in Germany are subject to the special demands arising from the German and European unification process:

i. More than a decade after German unification, school structures and teacher training in both parts of Germany ("old" and "new" Länder) have largely converged. Yet there are still significant differences. They concern in particular remuneration, employment conditions and co-determination with regard to the working conditions of teachers. There are also significant differences with regard to the quantitative key data for school development (location planning), teacher demand and employment of new teaching staff.

ii. As part of the Lisbon process, the EU Commission proposed five European benchmarks in November 2002 which are aimed at the empirically controlled improvement of the situation in problem areas of education systems by 2010. These benchmarks represent a great challenge for schools and teachers in Germany. They have hardly been adequately recognised in Germany. These objectives will only be managed with the greatest of effort. They make necessary an institutional learning process based on common objectives and comparable standards and requiring continuous empirical monitoring of the achievement of objectives.

3. In order to be able to do justice to these challenges, a decisive expansion of the instruments available for the control of the different system levels of the education system is required. Beyond the traditional forms of a primarily “input-oriented” control, “result-oriented” processes are now gaining a decisive importance. It is no longer important alone what teachers do within the framework of patterns of activity determined by political and administrative instructions (structures and programmes) and by training and professional socialisation, but also above all what they achieve against the background of the specific conditions in the context of a school. The focus is therefore moving to the activity of the individual school within the framework of a “professional bureaucracy” (Mintzberg) in which the service provided is determined in a particular way by the specialist knowledge, expertise and motivation of the staff in the operational units. The problems of schools can neither be solved in accordance with uniform patterns nor can teaching and education be interpreted only as the sum of individual relationships between teachers and students. On the contrary, the learning achieved by students is the result of common endeavours by teachers and students for which the appropriate organisational framework has to be created. Consequently “school development” thus becomes a “priority subject” of teacher training.²

4. Schools and teachers are thus given greater freedom of action. This is not just the result of considerations arising from supervision theory. A greater degree of self-determination and the experience of self-efficacy are of great importance also in an educational context. In this way the responsibility of all those involved and the necessity of developing suitable forms of accountability are emphasised.

2. IMPLEMENTING EDUCATION POLICY IN A FEDERAL STATE

5. The federal order of the Federal Republic of Germany distributes tasks between the federal level and the Länder. In this context cultural sovereignty lies at the “heart of the sovereignty of the Länder” according to a judgement of the Federal Constitutional Court. It relates in particular to the education system including the school part of vocational education and training and teacher training. When the new Länder created in the territory of the German Democratic Republic acceded to the Federal Republic in 1990, they became part of this federal structure.

6. Federalism should be guided by the principle of subsidiarity and seek solutions close to the citizens which take account of different traditions, mentalities, ways of thinking and speaking. At the same time the constitutional principle of creating uniform living conditions across the federal territory applies. In this context freedom of movement and mobility of the population in Germany must be assured. This principle has led to strong unitarian tendencies in the constitutional reality of the Federal Republic which were, furthermore, reinforced by the financial dominance of the federal level. In the early 1970s, these tendencies came to expression particularly in the western part of Germany (today: old Länder) as the Bund-Länder Commission for Educational Planning and Research Promotion (BLK) established the possibility of education planning for the state as a whole. This occurred in a phase when education policy in Germany had reached its “high point”, leading to the largest expansion of school and higher education in the history of German education.³ These developments had been prepared by the establishment of advisory bodies – the German Committee for the Education System (1953 – 1965), the German Education Council (*Deutscher Bildungsrat*) (1965 – 1975) and the Science Council (*Wissenschaftsrat*) (1957 to the present day) – which also became scientific advisory forums for politicians in the federal and Länder governments. The global plan for education drawn up by the BLK in 1973 led to intense conflicts in education policy particularly with regard to the transformation of the German school system through the establishment of comprehensive schools (*Gesamtschulen*) and the associated demand for

teacher training structured by school level. No decisions were taken by the federal and Länder heads of government with regard to these issues. The further development of the global plan for education beyond 1985 failed shortly thereafter due to problems of education funding. The agreement on the German Education Council was not extended beyond 1975.

7. With regard to the school system, there is currently only rudimentary education planning for the state as a whole. The collaboration in the BLK was continued with greater emphasis on content merely in the area of the support of pilot projects and in the “Education Forum” between 1999 and 2002 which, at the end of its work, made comprehensive recommendations on safeguarding the ability of the German education system to meet future challenges. The federal government has greater opportunities to influence the higher education system in that it has the power to issue framework regulations with regard to higher education institutions and through the joint financing by the federal and Länder governments (“joint tasks”) of the construction of higher education institutions and specific research programmes, a measure which was introduced in 1970. But here, too, the inherent tensions contained in collaboration between the federal government and the Länder has led to recent demands for fundamental changes. In particular, the issue of disentangling the mixed financing between the federal and Länder governments with regard to joint tasks (construction of higher education institutions and research funding) is repeatedly raised.

8. As a forum for the voluntary self-coordination of the Länder, the Standing Conference is an important instrument of education policy to the present day. The principle of consensus by which it is governed promotes the search for compromise, but has also been repeatedly been subject to public criticism as a retarding principle preventing new developments. According to its statutes, the Standing Conference should discuss “cultural policy matters of supra-regional significance with the aim of forming a common viewpoint and a common will as well as representing common interests”. Its resolutions, which must be adopted unanimously, oblige the ministers of education and cultural affairs to ensure their implementation in their respective Länder. The objective was, and is to the present day, “to ensure a common and comparable basic structure of the school system”. To this end the Standing Conference should in particular create the basis in legal terms and in terms of content and subject matter for the reciprocal recognition of qualifications and certificates in schools and teacher training. Of course the results of internal German achievement comparisons as part of the current comparative studies on student performance have shown that the claim to ensure a uniform performance level through guidelines with regard to school organisation and teaching programmes has not been fulfilled. Hence the question regarding greater freedom of action of the Länder as a prerequisite for speeding up necessary developments, on the one hand, and effective forms of safeguarding the necessary degree of comparability particularly of certificates and qualifications, on the other, needs to be asked anew.

3. SCHOOL STRUCTURE

9. The school system in the Federal Republic of Germany is largely organised by the state. According to the Basic Law as well as according to the constitutions of the Länder, the whole of the school system is under the “supervision of the state”. Affairs of the state are, in particular, the “internal administration of schools” (all educational matters including training, employment and financing of teaching staff). As the bodies responsible for the “external administration of schools” (with responsibility for buildings, their facilities and non-teaching staff) the municipalities also play an important role. At the same time the right to set up private schools is guaranteed. Private schools – to the extent that they offer a “product of equal value“ with regard to the state schools – are entitled to state recognition and financial support. Currently 5.6 % of students attend private general education schools and 6.6 % of students

attend private vocational schools. Their percentage of the total number of students across Germany has risen slightly since 1992 (by 0.8 and 1.5 percentage points).⁴

10. During the reconstruction of the school system after the Second World War, a different structural concept was followed in the two parts of Germany: whereas in the east, later to become the GDR, a unified school programme was advocated as part of profound social changes, developments in the west were largely guided by the school structures of the Weimar Republic with a “tiered” school system. Its restoration should also be understood as the rejection of experimenting as the result of which it was feared that the Länder would drift too far apart.⁵ The four-year primary school (in some Länder: six years) is followed by a lower secondary level in the traditional form of the threefold system of *Hauptschule*, *Realschule* or *Gymnasium*. They lead to different qualifications with different entitlements. The lower secondary level is followed by an upper secondary level with a general education part (upper level at *Gymnasien* and *Gesamtschulen*) and a highly differentiated vocational part. The latter comprises both the school part of dual education in part time form and technical schools and other schools in full time form. In the 1970s, almost all the Länder of the former Federal Republic additionally introduced the integrated comprehensive school (*integrierte Gesamtschule*) – initially in school pilot projects, then in the form of an additional standard school – even if this occurred in significantly differing degrees for education policy reasons. In the new Länder, the unified school system taken over from the GDR was transformed into a tiered system after unification, in which context additional forms of integrated systems or systems which transcended individual school types were introduced alongside the *Gymnasium*.

11. Today the 16 Länder of the Federal Republic show clearly different school structures and considerable differences in the educational take-up of the specific school types.⁶ The spectrum ranges from a two to a five component tier structure. The traditional three-tiered (*Hauptschule*, *Realschule*, *Gymnasium*) is hardly found in any Länder anymore. There are some Länder which alongside the *Gymnasium* merely have a “school with several educational routes” (two tiers), but there are also Länder which have *Hauptschule*, *Realschule*, *Gymnasium* and *integrierte Gesamtschule* (four tier structure) and in some cases additionally “schools with several education routes” (five tier structure) running in parallel. Whereas the percentage of students in *Gymnasien* in all the Länder has risen steadily and today lies between barely 27 % and a good 34 %, the distribution of students among the other school types displays a much more heterogeneous picture. In the old Länder, *Hauptschule* is attended by between barely 9 % and a good 40 % of students in ninth grade; in the new Länder this type of school as such is hardly represented any longer. The share of students in *Realschulen* lies between 15 and 36 %; this type of school, too, is no longer represented as such in some Länder. The share of the different forms of integrated systems fluctuates accordingly. The picture is similarly diverse when we look at the relative distribution of school qualifications in the Länder. The higher education entrance qualification is achieved by between 20 and 30 %, an intermediate school-leaving certificate by between 32 and 53 % and a secondary general school certificate by between 12 and 41 % of students in a year. At the same time type of school and school qualification have in the meantime become largely disconnected. The same qualification can be gained in different school types. An important role is played by the subsequent “upgrading” of the qualification achieved at general education schools via vocational schools. But this possibility is used in different ways in the different Länder. These figures in turn hide considerable regional differences within the Länder, particularly also between urban and rural regions. As a consequence of these developments, school environments have developed in nominally the same school types which can vary considerably depending on the social composition of students and their willingness and ability to learn.

4. EDUCATION POLICY PRIORITIES IN ACCORDANCE WITH PISA

12. The results of the international comparative studies on student performance which are often pointedly referred to in Germany as “TIMSS shock” and “PISA shock” triggered an intense education policy debate. They have shown that fundamental hopes associated with changes introduced by the “reform phase” of the 1960s and 1970s were not fulfilled. Here a specific structural pattern is evident in Germany. The significance of these findings only becomes clear when they are seen as a whole.⁷

i. The performance of students at German schools lies, as a whole, below average in the competence domains included when compared to such performance in other participating countries and clearly lags behind the “top countries”.

ii. The uniform support of students is less successful than in other countries. In Germany the gap between the performance of weak and good students (performance spread) is particularly large. About one quarter of the student body can be described as a risk group whose performance, e.g. in reading, at best reaches competence level I and sometimes even lies below that.

iii. The connection between performance and social background is more strongly pronounced in Germany than in almost all other countries. At the same time, the German education system remains socially selective. The opportunity to attend a *Gymnasium* is considerably greater for children from the upper social strata than for children from lower strata.

iv. School support for children from immigrant families is less successful in Germany than in other countries with comparable immigration structures.

13. This structural pattern in principle applies to all the Länder, even if it does so to various degrees and at different levels: The performance gradient between the Länder is considerable. In extreme cases, it reaches dimensions which correspond to a performance difference of one-and-a-half to two school years.

14. The current comparative studies represent a new experience for Germany. Germany either did not take part at all in earlier comparative studies or only with partial samples, or alternatively the results were ignored – as happened most recently with the IEA Reading Literacy Study carried out in 1991. This is also connected, as already mentioned, with the traditional humanistic and normative outlook of German pedagogy. Neither school administrators and policy makers concerned with education nor German teachers were used to examining the actual results of their actions and measuring them against what others were achieving under the same conditions. The “closed classroom door” is the symbolic expression of the way that the system worked at all levels. Learning outcomes were just as rarely the subject of debate about comparisons between different classes in a school as between different schools or different Länder. The quality assurance endeavours of schools and teaching were concentrated on formulating guidelines in terms of structure and content (school organisation and equipment, timetables, curricula, etc.) and on supervision which was primarily guided by what schools and teachers do, not what they achieve. Here it becomes evident that the effort to examine the results of what students learn and regular feedback to teachers and schools will gain in importance in the future. Nevertheless, the possible forms of the examination of learning outcomes and of feedback have hardly been fully debated yet and only tested in a rudimentary way. The infrastructural conditions for such processes have still to be developed. In this respect the required developments are still in their infancy.

15. Comparative studies indicate problems which need to be solved but do not provide explanations about the causes which underlie such problems, or, indeed, recipes to change the

situation. Here it should be observed that the current comparative studies focus on the performance of a student year which started school more than ten years ago. In order to follow events in sequence and record the effects of the developments in education policy which have been introduced in the meantime, longitudinal and follow-up studies would be required. But they are not currently available.⁸ Against this background a broad range of approaches to necessary change is being debated in Germany which in many cases can only be based on assumptions (“deficit hypotheses”). Change strategies must build on the plausibility of such hypotheses and cannot wait for a greater degree of security to be achieved through additional studies, neither can they assume that there are clearly identifiable individual factors which could provide an explanation for unfavourable findings and thus simple guidance with regard to the education policy measures to be introduced. In all likelihood a variety of factors play a role which must all be included in the action plans. It is thus all the more important to drive forward both the endeavour to clarify causes and to control the results of the change processes which have been started in order to be able to take corrective measures at the appropriate time and supplement and expand the catalogue of measures to be introduced. The measures which have been taken aim to introduce far-reaching changes to the way that teaching takes place and its framework conditions. Success can only be assumed to the extent that it is possible to persuade teachers to take an active part in the development of a new reality in schools and teaching in Germany.

16. In accordance with the federal structure of Germany, key levels of action here are the Länder. One focus of their action lies in the field of pre-school and primary school. These are accorded particular significance for the removal of class-specific educational barriers. With regard to pre-school facilities (children’s day care) this means that their primary task of care from a primarily social pedagogical aspect is supplemented by an educational task which is not intended to pre-empt school but – particularly in the language field – promotes learning processes as a preparation for successful learning in school. This has hitherto hardly been part of the concept of educational work in child day care facilities. Neither have these issues hitherto played an important role in the training – currently undertaken at *Fachschule* and not university level – of the education specialists working there. For primary schools, the results of the most recent international studies (PIRLS) appear to point to a better situation than is the case at the end of the lower secondary level.⁹ Nevertheless, key problems are already evident even at primary school level (large risk group, dependence of school performance on social background, low performance level of children from migrant families). That is why new concepts to promote linguistic competences and basic mathematical understanding must also be sought at primary school level. They can build on preliminary work which was already been introduced in a number of Länder even before PISA.¹⁰

17. A key element in the joint action of the Länder in the Standing Conference is the endeavour to develop “educational standards”.¹¹ Other than traditional curricula, which primarily lay down what students should have studied at school, educational standards describe what they should be able to do at certain stages of their learning development. Educational standards should clearly set out the basic principles of the respective domain, concentrate on core areas and enable cumulative, systematically networked learning. Curricula in the traditional sense only have a small guiding effect.¹² Better guidance is hoped for from educational standards since they describe in concrete terms the dimensions and competence levels which should be built up in the progression through school, explain them using example tasks and thus enable monitoring and assessment of the competence level which has been achieved. Educational standards do not standardise the course of lessons. On the contrary, in giving a clear description of the targets to be achieved they also give greater freedom as to the different paths by which those targets can be reached which should then take account of the special conditions of the individual school and its students. Educational standards and the regular monitoring of the performance standard which has actually been achieved on this basis are thus to become a central element in quality assurance for schools in Germany – also in the

relationship of the Länder among each other. A lot of detailed preliminary work is still required here.

18. Currently the work on educational standards is concentrated in the field of German language competences, foreign language skills¹³ and mathematical skills. These areas should not be understood as school subjects in the traditional sense. They are, on the contrary, basic skills (cultural tools), which – together with other skills independent of subjects (media skills, learning strategies, etc.) – are a prerequisite for learning in all subjects. They must therefore also be promoted in all subjects. This will require multiple didactic reorientation. It is an important result of the debates following TIMSS and PISA that the awareness of this has been intensified. The German debate is here seeking to connect with the literacy debate that is being conducted above all in the Anglo-Saxon world without thereby abandoning the link to a concept of general education which is characteristic of the German tradition of educational thinking. Orientational knowledge and understanding in the subjects (natural sciences, literature, history, philosophy, society, economics, arts, religion, etc.) retain their importance beyond the basic skills. But the lesson content should be determined anew in this field, too, in view of the different circumstances of the lives, experiences and interests of children against the background of growing cultural diversity. An important role is played by considerations of “core curricula”, which determine the core of common learning which is then to enable the development of various focuses and greater in-depth study. The Standing Conference has requested expert opinions from academics in the subjects concerned to give concrete form to such considerations for the upper level of the *Gymnasium* in the first instance. A first volume of expert opinions for the subjects German, mathematics and English has already been published.¹⁴ A second volume for the fields of natural science (physics, chemistry, biology), history and politics is to be published this year.

19. For fear of a repetition of a fruitless debate about school forms, changes in the current form of an education system structured by school type at lower secondary level are debated only with great restraint. The same applies to the transition period from primary school to lower secondary level and thus also for the duration of primary school. The findings of international comparative studies appear to indicate that those countries are more “successful” which have “integrated systems”.¹⁵ But in internal German comparisons those Länder above all do better which adhere most intensively to the traditional structure of the German school system. These Länder, however, partly also display particularly pronounced overlaps in the performance levels of the different school types. Here comparatively good performance figures collide with less than satisfactory solutions to problems relating to equity. In all of this it remains an open question to what extent the performance differences between the Länder are connected with differences in school structure and what other social and cultural background variables might play a role.¹⁶

20. The tiered school system provides the structural framework for an educational approach which is still strongly influenced by the principle of educating learning groups which are homogenous in terms of their performance. Homogenization starts as early as school enrolment with the holding back of a group of children who are not yet considered to be “ready” for school, continues in the assignment of students to the different school types at lower secondary level and is constantly readjusted when students are held back a year or change school type. Hence young people of the same age in Germany are distributed over a comparatively large number of class levels. As a result, approximately one third of 15-year-old students in Germany has passed through school with a delay of at least one year. Here, too, there is a great divergence between the Länder. At minimum, a good 21 % of students in a year is affected in one Land while at maximum it rises to almost 45 % in another. The downside of this performance homogenization is the strong social segregation of students by school types. A separate form of homogenization of learning groups is the transfer of children to special schools (schools for children with learning difficulties, speech therapy schools).

21. Despite this endeavour to achieve homogenization, until very recent times the thesis of the growing (social, cultural and performance) heterogeneity of learning groups played a central role in the education debate with regard to finding the causes for the increasing difficulty in achieving the set learning targets. The PISA results, however, have made clear that the student body at German schools is remarkably homogeneous in comparison to schools in other countries.¹⁷ Obviously the ability to deal with heterogeneity must in the future become a central topic in the qualification of teaching staff.¹⁸ Lessons at German schools are experienced by students as being associated with a relatively high level of pressure to perform while support by teaching staff is seen to be rather low.¹⁹ What therefore particularly needs to be changed is the still dominant teaching script in German schools of “lesson development by questioning” which ideally is aimed at a homogenous group of students but which as a result fails to take account of the different experiences, interests and learning opportunities of children and young people. Changes in this teaching script are thus a key prerequisite for the development from a selective (“exclusive”) to a supportive (“inclusive”) education.

22. The extent to which this would require structural changes in the German “school landscape” cannot really be decided politically at this time. Obviously the assumption of a pre-set school structure in Germany determined by different ability structures and consequently school careers is still deeply engrained in society as well as the thinking of teachers. Indeed, it is commonly demanded as a consequence of the PISA results that the “sorting” by performance of students should be undertaken even more strictly than happened in the past. Here, the insight that the recommendations made in primary school for the further school career of students differ very much from each other notwithstanding the competency levels defined for performance studies²⁰ appears to have produced no more of a change in thinking so far than the fact that the performance levels of the different school types are strongly overlapping. In each school type there is a remarkably large percentage of students who could well keep up in terms of performance in a “higher” school type.²¹ There is, nevertheless, a debate about greater permeability in the German school system. It is aimed at opening up the opportunity to achieve a higher school leaving qualification also for those students who were assigned to a school type which does not exhaust their performance abilities. In reality, such permeability currently largely exists only as a move downwards rather than upwards. At present, strategies are being pursued above all to ensure that the necessary openings are created within the context of vocational education and to enable students to catch up on the secondary general school certificate or acquire a higher school leaving certificate – including higher education qualifications certificates – as part of the courses on offer there. This opportunity already plays an important role in some Länder.²²

5. FINANCING EDUCATION

23. If one accepts the definition of education budget as used by the OECD, then in 1999 5.5 % of the gross domestic product was provided for education from public and private sources in Germany – the average value in OECD countries also being 5.5 %. The share of public education expenditure, which came to almost 85 billion euros in 1999, corresponded to about 4.3 % of GDP. Germany here clearly lies below the average of OECD countries (4.9 %) and thus far behind the “leaders” such as Sweden (6.5 %), France (5.8 %) and Switzerland (5.4 %), although on a par with the United Kingdom (4.4 %) and clearly ahead of Japan (3.5 %)²³. In order to evaluate the differences between countries, it is useful to know that one percentage point of GDP corresponds to about 20 billion euros. If Germany were to raise its education expenditure to the OECD average, it would have to spend about 12 billion euros more (related to 1999).

24. Public education expenditure in Germany is borne – to various degrees – by the federal government, the Länder and the municipalities. If the definition of education budget commonly used in Germany is applied, which diverges from the OECD definition, then about 66 % of public education expenditure accrues to the Länder, 19 % to the municipalities and 15 % to the federal government. If public expenditure in the field of pre-school and school education is considered alone, the Länder bear 78 % and the municipalities 22 %; the federal government makes no contribution at all to these fields.²⁴ This distribution reflects the division of competences between the three levels of the state which is characteristic of Germany.

25. Eighty-two percent of German public education expenditure is made up of staff costs. A further 10 % accrues to so-called “current” operating expenditure and 8 % to investment expenditure. In an international comparison, it is noticeable that the share of investment expenditure corresponds to the average of the OECD countries (also 8 %), but that the division of non-investment expenditures falls very much in favour of staff expenditures. Internationally, only 74 % of total expenditures accrue to staff (Germany 82 %) and 18 % to operating expenditure (Germany 10 %).²⁵ Thus current expenditures for teaching and learning materials, for example, are below average while teacher salaries benefit. The high percentage of staff costs is not explained by high staff numbers but by the above average teacher salaries in Germany.

26. A further structural characteristic of German education expenditure is worth noting against the background of international comparative data: internationally it is normal that education expenditure per student rises with the levels in the education system. If expenditure in the primary field is set at 100 %, it rises on average in the OECD countries to 126 % for the lower secondary level and 143 % for the upper secondary level. If the comparable German values are set against this (and if only the full time school field of the upper secondary level is included due to the special situation in the dual vocational education system with its elaborate vocational remuneration), a clearly divergent picture emerges: in the upper secondary field the expenditure per student in Germany amounts to 164 % of the corresponding expenditure in the primary field.²⁶

27. This snapshot of public education expenditure is given additional emphasis by a look at education expenditure over time. The difficulty is, however, that the definition of expenditures to be allocated to the education budget and the way that they are recorded have constantly changed nationally and internationally in recent years. It is therefore difficult to construct timelines for Germany and it is almost impossible to compare such timelines internationally. Thus for example pension payments in Germany for teachers with civil servant status have only recently been made part of education budget expenditures. In international comparisons expenditures for research at higher education institutions, which in Germany are not deemed to be education expenditures, are allocated to the education budget. If, nevertheless, one wishes to get some idea of the development of education expenditure, then it is permissible and meaningful to trace back the education budget on the basis of one of the various definitions in Germany. On the basis of this meanwhile out of date definition, it becomes evident that, at 3.95 %, the share of education expenditure as part of the gross domestic product for 2000 lays clearly under the top value of 5.09 % achieved in 1975. A closer look shows that in the years from 1975 to 1990 there was a very strong fall from 5.09 % to 3.68 %. This must, of course, also be seen in the context of the clear decrease in student numbers in the 1980s. In the territory of the former Federal Republic, student numbers fell from almost 11.9 million in 1980 to a good 9.1 million in 1990²⁷ due to the fall in the birth rate. As a result of the German unification process and high expenditures in the territory of the new Länder, this was followed by a renewed rise in the share of education expenditure of GDP to 4.31 % in 1993. Since then a renewed shrinkage process to most recently 3.95 % can be observed.²⁸

28. Despite the relative fall in education expenditures – relative to GDP – expenditures per school place (calculated at 1992 prices) rose from about 2,000 euros in 1975 to approxi-

mately 3,200 euros in the early 1990s. Since then the expenditures per school place have also been falling.²⁹ The real rise in school place-related expenditures can be explained by the already mentioned fall in student numbers which was not accompanied by a similar reduction in education expenditure.

6. KEY DEMOGRAPHIC FIGURES

29. The demographic development of Germany – to the extent that it is relevant to school development – is characterised by two major caesuras. In both parts of Germany a strong fall in the birth rate lasting for about ten years started in the early 1960s (in the east of the country) and the mid 1960s (in the west of Germany): in West Germany from more than one million to barely 0.6 million, in East Germany from almost 300,000 to about 180,000.³⁰ This led in both parts of the country, but not simultaneously, to a strong fall in student numbers which was not compensated for by the effects of the expansion in education as a result of which more adolescents were spending longer in the school system. A fall in the birth rate can be observed in the majority of developed countries. But in Germany the fall is relatively greater than in other countries. Whereas in an average of all OECD countries the share of 5 to 29-year-olds makes up 35 % of the population as a whole, this age group in Germany represents only 29 % of the population as a whole.³¹ The resultant shift in the age structure of the population will continue in future according to the current population forecasts.³²

30. While the birth rate in the territory of the former Federal Republic stabilised at a low level between just below 600,000 and just above 700,000, in the territory of the new Länder there was a second, even more severe fall in the birth rate after the end of the GDR: the barely 200,000 births of 1989 were contrasted five years later, in 1994, by a figure slightly below a mere 80,000 births.³³ Even if since then there has been a return to a slight rise in the birth rate in the east of the country, it can be said that the German school system will be affected by the recent development of the birth rate for many years to come. This is reinforced by the expectation of a second fall in the birth rate in the west of the country – an echo, as it were, of the drop in the birth rate during the 1960s and 1970s. The years with a weak birth rate of the years following 1965 are meanwhile becoming the parent generation so that the overall number of children from this generation will be less than from preceding generations.

31. In the territory of the old Länder the fall in the birth rate produced the effect that hardly any new teachers were employed over many years and that the position of the schools with regard to teaching posts significantly improved relative to student numbers. In the coming years, the anticipated renewed fall in the birth rate will mean that student numbers will reduce to about 80 % of current numbers from 2005 to 2020. While this shrinkage will not have a serious effect on the western German school system as a whole and its individual locations, the renewed fall in the birth rate in the territory of the new Länder will lead to considerable problems. Now already at the primary level and subsequently at the lower and upper secondary levels a large number of school sites must shrink or be abandoned when student numbers fall from more than three million in the mid 1990s to about 1.7 million towards the end of this decade.³⁴

32. In the context of these global figures, the development of immigration plays a particular role.³⁵ The linguistic and cultural diversity among students which can be observed today is due not only but to a high degree to the cross-frontier migration experienced by Germany since the end of the Second World War. For historical reasons, immigration is focused in the western Länder. Cities and urban conglomerations provide the main attraction points for immigrants, as is the case all over the world. Despite of this, no region of Germany is wholly excluded from this development. According to data collected as part of PISA, at least one parent of about 27 % of 15-year-old students in the old Länder was born outside Ger-

many; in the new Länder this is the case with almost 4 %. With over 40 %, the city state of Bremen has the greatest share of students from families with a migration background. The largest group of immigrant families comes from Poland and the former Soviet Union, the second largest from Turkey. The rest is distributed among many countries.³⁶ It is to be expected that immigration to Germany will continue to remain significant. That is the uniform opinion of all forecasts, although there are clear differences in the actual values depending on the underlying model for the forecast.³⁷ As part of this development, a substantial number of new immigrants must be expected who need to be integrated.³⁸ Many members of families with a migration background are at an age where they are among the beneficiaries of the education sector (including child and youth welfare).

33. Migration always involves immigration and emigration. It is frequently a time-limited event or involves commuting between several countries (“transmigration”).³⁹ In the period from the middle to the end of the twentieth century, there were approx. 24 million instances of immigration as opposed to about 17 million instances of emigration. Germany thus possesses the greatest “turnover” of migrant population among all of the “classic” and new immigration countries.⁴⁰ Hence a large number of people also regularly leave Germany. They include, as can generally be observed in migration, an above-average number of younger people who emigrate again once they have passed through the education system here and achieved a qualification. Similar fluctuations can be expected to continue in the future. Experts see the reason for this as being that Germany – in contrast to other European and overseas immigration regions – did not in the past establish a systematic integration policy but reacts to the development of immigration largely with individual measures, thus failing to create any secure perspective among young people for remaining.⁴¹

34. The classic view of migration processes, that as a rule they concerned gradually integrating, permanently resident population groups, whose adaptation process was largely completed by the third generation, hardly applies any longer to the present or the future situation. Due to the phenomenon of “transmigration” and the possibility of maintaining close contacts with the country of origin through the use of modern communication methods and transport resources, a much greater vitality in the languages “of origin” and cultural orientation can be observed among many migrant groups than was the case in the past.⁴² Irrespective of the fact that an increasing number of children from families with a migration background are born in Germany and grow up here, in the longer term there can be no expectation in the education system that children and young people with a migration background will develop into a homogenous group which grows increasingly similar to the long established group in respect of life situation, cultural experiences and educational prerequisites.

7. TEACHING CAREERS

35. Teachers in Germany are employed at a relatively late age when compared with international practice: in the primary level aged about 25 and in the *Gymnasien* and vocational schools (*Berufsschulen*) frequently as late as about 30. Decisions on employment are made in accordance with the current requirements of school types and specific subjects on the basis of the marks achieved during training. Here the evaluation of individual lessons taught by the trainee teachers in the second training phase (“marked teaching tests”) play an important role. The overall mark from the two state examinations, the weighting of which may differ, frequently depends on the “figures behind the point” to determine where on the waiting list for a post (with civil servant status) the candidate will be. A separate “assessment”, where additional factors are taken into account alongside the training performance before a decision is made, as is common practice in many other professions, does not take place. The performance in the examinations leads to a licence for lifelong teaching, the validity of which is hardly monitored subsequently by continuous staff assessment during the course of the professional

career. Neither do considerations of the possibility of creating a sounder basis for decisions on the employment of new teachers in respect of their professional resilience and likely success in their career⁴³ currently play any great role in the political and educational debate.

36. Only recently have individual Länder started giving schools the opportunity to select their teachers themselves from among the applicants. It has not so far been investigated whether this will lead to well qualified teachers looking for the most attractive schools in the least encumbered residential areas in terms of social structure, leaving the posts in schools in more difficult social environments to others, and what effect the changed employment practice might have on the mobility of teachers.⁴⁴ The possibility of schools influencing with increasing independence decisions on staff recruitment for the location in question is more than merely a change of decision-making responsibilities. Certified training performance and examination marks remain an important decision-making basis for employment, but no longer the only one. Additional decision-making criteria come into play (ability to communicate, resilience, charisma, fitting into specific concepts of the work, etc.) which hitherto played no role in the decision by central authorities on the employment of teachers.

37. Since teachers are assigned to different school types, depending on their training, their type-specific professional socialisation is determined from their first employment onwards. It is then consolidated, as a rule, for the rest of their professional life. This is reinforced by the legal situation which makes teachers with civil servant status to all intents and purposes impossible to dismiss. The same applies after 15 years to teachers with employee status. Hence teachers in Germany seldom change the school at which they teach or, indeed, the school type. If the opportunity to take full or partial leave for a specified period is set aside, a transition from school into other professional fields is as unusual in Germany as the change from other professional fields into teaching. The reason for this lies in the sectoral structure of the labour market (“compartmentalisation”), something which is also reflected in the legal organisation of the employment relationship and differing systems of social security. In contrast to other countries, the problem in Germany, therefore, is less one of retaining teachers in the profession than assuring their motivation and willingness to continue qualifying themselves over a long period of time without a change in the field in which they work. These circumstances do not, of course, apply in this form to teachers in the new Länder: all of them were subject to a change of work place after 1989 and they will have to be prepared for further changes of work place due to the wave of school closures which is about to happen.

38. Career considerations also bring up the issue of staff development. They raise possibilities of remunerating special professional performance, opening new professional development perspectives (careers) and integrating them into overarching life plans, supporting teaching staff in the management of their professional learning and professional crises and helping teaching staff who can no longer meet the requirements of their job to leave and change to another field of activity. The requirement for staff development for teachers which takes account of these aspects has been largely recognized⁴⁵, but approaches to realising such a requirement are hardly developed yet.

39. The instances of illness-related “early retirement”⁴⁶ of teachers, which grew rapidly in the 1990s (similar developments are, of course, also in evidence with regard to the police and prison officers) produced an intensive and controversial public debate. Teachers and their respective interest groups saw the reason for this development in the growing stress resulting from their profession. Others voiced concerns that this measure was being abused, something which was accompanied in the media by prominent reports of negative examples of teachers taking up other activities following retirement. The authorities responsible for human resources (Interior Ministries) used this as an occasion to look for opportunities of reducing the number of early retirements. Here also the idea of “rehabilitation before retirement” played a role. The core of the endeavours was, however, directed at reducing the inducement to take early retirement and to raise the procedural hurdles to such a path. They sought the

causes of the problems which needed to be resolved primarily in control deficits and malfunctions caused by the pension law for civil servants. In non-specific procedures which included very different professional groups, the issue of the particular health-affecting stress of teachers, its causes and the possibilities of dealing with the causes was hardly discussed.⁴⁷ However, due to changes in the framework conditions and the introduction of partial retirement the number of early retirements is beginning to fall again.

8. PROFESSIONAL STATUS AND WORK CONDITIONS OF TEACHING STAFF

40. The overwhelming majority of teaching staff in the old Länder are employed with civil servant status (Land civil servants). This corresponds to the predominant understanding of the school system as a sovereign function which is revealed particularly in the certification of student performance. A similar sovereign understanding applies in other states only to the core of public administration (police, justice, financial system). As civil servants, a special "relationship of loyalty" applies between teachers and their employer. In particular, they do not have a right to strike. Yet there are "teacher strikes". Employment and disciplinary measures are used in response as appropriate. Since the ongoing remuneration of civil servants does not contain a percentage for social insurance, it is currently lower than the ongoing expenditures for employees.⁴⁸ A general system change from civil servant to employee status is repeatedly called for in the public debate, but this would cause considerably higher costs for the transition period because the higher workplace costs for the newly employed teaching staff would have to be paid, on the one hand, while at the same time the pension costs would have to be borne for teaching staff with civil servant status leaving the service. For this reason, too, there has so far been a consensus between the Länder that civil servant status should be maintained for teaching staff. Teachers in the new Länder, by contrast, work mostly in an employee relationship. The inability to terminate employment does not apply here.

41. As a rule, in the western German Länder school employment takes place in the form of full time employment. Yet only 56 % of all teaching staff do so as full-time employees, a further 33 % work at reduced teaching hours but more than 50 % of regular hours and 11 % work on an hourly basis below the 50 % threshold.⁴⁹ Part-time staff are fully integrated into the working of the school (meetings, common events, parent work, further training, etc.). Their weekly hours are therefore higher than would otherwise accord with their reduced teaching commitments.⁵⁰ The part-time employees in the western part of Germany are largely women who have applied to have their teaching hours reduced. In the east, part-time employment is something completely different. There part-time employment is a tool used by the Länder in reaction to the falling requirement for teaching as a result of the fall in student numbers. It affects male and female teachers in equal measure. Faced with the decision to take part-time employment, they had to choose between this type of employment and an end to their teaching activity.

42. The type of teaching post and the scope of employment determine the level of actual earnings with regard to the grade to which they belong. Compared to other professional groups, teachers with civil servant status cannot be given notice and enjoy a relatively high salary with no reductions for pension and unemployment insurances. This reflects high social standing which, however, stands in marked contrast to the self-perception of teachers. Because of part-time work, which is accepted to preserve jobs, and because of the bad financial situation in the new Länder, the incomes of employed teachers in the new Länder are significantly lower than the salaries of the teachers with civil servant status in the west.

43. There are different teacher organisations which represent part of the teachers of specific school types. This, too, is an element in the German school system which preserves existing structures. Teacher organisations do not restrict themselves to representing the inter-

ests of their members with regard to pay and working conditions. On the contrary, they frequently articulate views on basic issues of education policy and to this extent play an important role in the political discussion. To the extent that teachers are employed as civil servants, there is no freedom of collective bargaining in a trade union sense. Pay and working hours are regulated by the Land government or the competent employing authority by law or on the basis of statutory instruments. The teacher organisations have a right to be heard as representatives of teachers with civil servant status in all key questions relating to the teaching profession. In certain cases there are also formal rights of co-determination depending on the respective Land legislation, for example with regard to key changes in working conditions. In the new Länder, where teachers are largely taken on as employees, the key conditions of pay and working conditions are regulated in salary agreements between the education authorities and teaching trade unions.

44. The working hours of teachers are currently all regulated in the form of “teaching loads” which lay down the number of weekly hours to be taught. This is differentiated by the type of teaching post. Teachers at *Grundschulen*, *Hauptschulen* and *Realschulen* have the highest, teachers at *Gymnasien* a lower teaching load. There is no formal regulation with regard to the other activities of teachers (preparation beforehand and afterwards, extra-curricular activities in and for school) and the time taken for them. Here existing studies show that teachers on average work more than the regular working hours for public servants (38.5 or 40 hours per week).⁵¹ These average values of course hide a wide range. Thus the working hours load for teachers drops in a linear fashion from the youngest age group (39 and younger) to the oldest age group (50 and older). While the working hours in public service have been gradually reduced over the past decades (although in the meantime they are being partly increased again), there has been no similar reduction of teaching obligations for teachers. This has led to a feeling among teachers of being disadvantaged which is repeatedly emphasised by the teacher organisations and which gives rise to political conflict. In view of the difficult situation with regard to public finances, individual Länder have even started to increase the teaching load. Because of the civil servant status of teachers, this can be ordered by the state without wage negotiations with the teacher associations. Partly, these increases are only intended to be in force temporarily to cope with growing student numbers and are subsequently to be “given back”.

45. Recently an alternative model to regulate working hours for teachers has been drawn up in Hamburg. Here “working time accounts” are intended to reflect the different workloads – for example with different amounts of correcting to do in the different subjects – in as well as including the extra-curricular activity of teachers (“factorisation”). The purpose of the regulation is to record the work undertaken by teachers more precisely and thus to make a contribution to a more just distribution of work. It is not yet possible to make any comments on experiences with this model.

46. The relatively minor influence of the teacher organisations in determining working conditions is contrasted by the high degree of autonomy of the individual teachers in structuring their lessons and deciding on the use of their working time outside lessons. It supports the individualism of teachers and the associated isolation in the workplace. The latter have hitherto turned out to be “fixed elements in the professional culture of teachers” and a “stable barrier against the development towards greater professionalism” (Terhart⁵²). Teacher individualism is also supported by the form of the “half-day school” which has so far been the dominant form in Germany. Until now, teaching work has been characterised by a “divided workplace” in which only part of the work is undertaken in school and the other part is done at home. This contains both positive aspects which are undoubtedly perceived as a privilege but also negative aspects which can cause considerable stress. The freedom to determine how one’s time is used can also be the cause of difficulties in time management and discontinuous work organisation which is perceived as a burden, favouring a tendency towards self-exploitation. There are few favourable opportunities for cooperation among teaching staff⁵³

and for the kind of social support which is of central importance for handling job-related stress. Equally there is the absence of a clear separation of work and leisure time as a prerequisite for being able to distance oneself from day-to-day school life. This would be especially of importance for those young teachers whose personality makes them prone to special problems in managing job-related stress (a high level of over-commitment, reduced ability to distance themselves, resignation tendency, absence of offensive problem management, etc.) and the correspondingly high health risks.⁵⁴

47. Teaching in the context of half-day school is significantly dependent on the support of the parents. A considerable part of practice time occurs in the form of homework in the afternoon. Whole-day schools in obligatory or voluntary form currently make up only a small percentage of the school provision. Nevertheless, there are in the meantime noteworthy examples of “city district schools” which are characterised by cooperation with institutions outside the school such as children’s day-care centres, child and youth welfare, adult education facilities and public libraries, and which see themselves as regional education centres. But in relation to the total number of publicly maintained schools, we cannot yet refer to this as a formative element in the German school system. As one of the consequences arising from PISA, the Länder have thus decided on the expansion of whole-day schools. The federal government has earmarked financial support for it. Whole-day schools require new forms of learning from students and new forms of working from teachers.⁵⁵ They profoundly influence the time structure which has so far guided the work of teachers and other persons and organisations (youth associations etc.). In this respect developments on the path to the whole-day school will by no means be simple.

48. As part of considerations for new and more effective forms for the control of schools, a shift in perspective towards the micro-control of education is beginning to become evident in which the individual school as an organisation becomes the focus of observation.⁵⁶ The individual school in its capacity as “educational unit of activity” (Fend⁵⁷) is increasingly also turning into an economic unit of activity with greater freedom in how it uses its resources. It should structure its work processes within the framework of overarching objectives through a specific school programme on its own responsibility, control the effects and justify its actions. In the meantime, this development has entered in a variety of formulations (“independence”, “autonomy”, “self-management”, “self-responsibility”, “own responsibility”) into the school legislation of the Länder.⁵⁸ Within this framework, far-reaching tasks and responsibilities have been transferred to school managements, although there is, however, still frequently a disparity between this and the degree of decision-making power, administrative capacity and time granted to schools.⁵⁹ A further obstacle to economic action is the above-mentioned division of “internal” and “external” school administration. This makes it difficult to take meaningful independent action in accordance with specific requirements within the overall framework of the resources available to a school. In this context school staff are hardly prepared for the professional observance of the tasks of resource management. Apart from one or two school secretaries and a janitor or some handymen, there is an absence of administrative staff. The tasks of school management, including the maintenance of data processing systems and the administration of libraries and collections are as a rule performed by teachers who are relieved of lessons for that purpose. Even school managers frequently still have teaching commitments. In other respects as well, “multi-disciplinary” structures in which educationalists work together with psychologists, social education specialists or doctors, for example, have hardly been developed so far. Ideas about how school administrations can be prepared for leadership and management are only slowly beginning to take on concrete form.

49. The focus on the individual school as the central educational unit of activity produces a change in perspective in several respects. On the one hand, the tasks and repertoire of action of the state supervisory authorities in relation to the individual school needs to be redefined. School supervision is not supervision of individual teaching staff but deals with the

work of a school and the results achieved in their totality.⁶⁰ On the other hand, the relationship of individual teachers to their school as an organisation in which their action is embedded needs to be rethought. A balance needs to be found between the individual nature of authentic educational action and the circumstance that schools as social organisms necessarily pursue overarching objectives which must be implemented in commonly shared behavioural expectations among students and teachers and which require correspondingly consistent action and cooperation among colleagues. This simultaneously addresses the function of “management” of schools.⁶¹ Management is not just the formal coordination of work processes and the external representation of a school. It must, on the contrary, seek to achieve that the school as organisation fulfils its tasks within the feasible scope and thus includes staff management and staff responsibility. Understood in such a comprehensive sense, management has so far largely been relegated to the taboo area of schools.⁶² This is based not least in the philosophy of equality among teachers which prevents the discussion of differences and thus also makes the formation of structures among the teaching staff more difficult. What is required, is a professionalisation of management action in a differentiated management structure which creates both favourable conditions for the achievement of common targets for action as well as taking account of the justified claims of the teaching staff involved for recognition and support of their own professional competency and moral authority and integrity. The understanding of their role and the qualification processes of school managements must correspond to this in the preparation for their tasks.

50. Of central importance in the context of the concept of “new control” is the systematic analysis of the results achieved (“evaluation”) with a view to the objectives pursued and corresponding feedback as essential prerequisite for decisions on further action. The debate about possibilities and forms of evaluation of schools became more intense in the 1990s in the context of national and international comparative studies. For a long time it was determined by the dispute over the relationship between “internal” and “external” evaluation (i.e. evaluation restricted to an individual school and instituted by the latter as opposed to evaluation instituted by an external third party and embedded as a rule in a larger systematic context). “External” evaluation was often seen as irreconcilable with the specific conditions of educational activity. In the meantime, this controversy has become a lot less acrimonious. It has been recognised that an internal evaluation, too, requires a perspective from and to the outside. Only this can provide it with a framework of reference which enables the evaluation of its own action against the background of what others are achieving under the same conditions.

51. Triggered by the figures about sickness levels and the rising number of cases of early retirement, as already described, in recent decades the issue of “teacher health” has become the subject of widespread debate in Germany. Research into teacher stress has become an important field of teacher research.⁶³ Yet the full significance of this subject has been discovered late, if at all, not just as being relevant in terms of occupational medicine and pension law but also in respect of school organisation and education policy. Although in the meantime there is an almost unmanageable wealth of publications setting out the results of research into teacher stress, the current findings have not so far been consolidated into comprehensive concepts for action.

52. A great variety of concepts and definitions of stress and methods to investigate it have been set out and tested in educational and psychological studies. Thinking on the possibilities for reducing the job-related health risks of teachers mostly assume – put simply – that task and context-related stress on the one hand and the resources for managing stress on the other hand must be brought into equilibrium.⁶⁴ Where this equilibrium is disturbed, there must be intervention on the one or the other side. As part of such a model, the tasks which are perceived as stress factors and the framework conditions for their execution can be further differentiated. Rudow⁶⁵ distinguishes for example between work tasks or conditions relating school organisation, conditions of school hygiene, social conditions and societal and cultural conditions. It is plausible that these conditions are seen as stress and thus risk factors. It is, never-

theless, open to what extent this applies to each individual factor when observed in isolation. Simple bivariate connections and easily determined causal cause and effect connections should not be assumed but complex interactions within the framework of diverse system relationships. "Objective" factors only turn into risk-related stress against the horizon of the respective subjective perception and the individually different possibilities of managing it.⁶⁶ A special role here is played by the loss of any confidence in one's own effectiveness ("= burn out"). Against this background, it is not just individual factors but structural connections, too, that increasingly become the object of research.⁶⁷ In factor models, statistically significant accumulations of characteristics were studied which were most consolidated in the area of interaction conflicts with students.⁶⁸ Alongside the behaviour of students, the dealing with administrative activities which are seen as foreign to their tasks, role conflicts and the time used for pre and post-preparation, it is above all the idea of never being able to complete one's work and not having done enough which is experienced as particularly stressful by teachers. Combe graphically described this situation in the image of the teacher as "Sisyphus".⁶⁹ Teaching staff work with an objective in mind the achievement of which never appears to be sufficient and permanently assured however great an effort is made. In such a situation the specification of a standard of appropriate work input is particularly necessary, but also particularly difficult.

53. The results of stress studies provide the basis for targeted measures to prevent burn-out phenomena. The intervention proposals for the management of job-related stress are concentrated on measures of coaching, stress management, supervision and organised cooperation in school as a workplace (e.g. team building, work alliances) as well as the active involvement in school development processes and reform plans.⁷⁰ From the teachers' perspective, the demand for a reduction in mandatory teaching hours is repeatedly raised in this context. In doing so, reference is made to the studies mentioned above on the duration of workload for teachers.⁷¹ Such exertion is of course not solely the consequence of objective requirements, but also an expression of the structural conditions in which the work is undertaken, as well as different individual abilities and practices in organising one's own work.⁷² Hence it is an open question what contribution a reduction in the mandatory number of hours can make to a solution of the existing problems for as long as the structural framework for the organisation of teacher work itself remains unchanged.

54. Results of teacher stress research which were presented by a group of DFG (*Deutsche Forschungsgemeinschaft*/German Research Foundation) researchers⁷³ show that despite everything the feelings of stress experienced by teachers are accompanied by professional satisfaction. According to this research, 60 to 65 % of respondents said they were very or positively satisfied. But at least 20 % also see problems and consider themselves to be under stress in relation to their work. In this context female teachers appear to be more satisfied with their work than male ones.⁷⁴ These results allow us to conclude that the threat of burn-out is not something that affects the profession as a whole but mainly concerns special risk groups (desintegrated teaching staff).

9. ATTRACTING, SELECTING AND EMPLOYING TEACHERS

55. Historically, there has been in Germany since the early nineteenth century a cyclical alternation between a shortage and a surplus of applicants not just with regard to teachers but also in other fields (theologians, lawyers, physicians).⁷⁵ A shortage of teachers was frequently used by their associations to accomplish their own demands. In the context of such a development, it seems that prospective students responded less to forecasts than to the current employment situation. They began their training in a situation in which there was a shortage of applicants even when in the face of a growing subject-specific demand for training a surplus of applicants began to show itself again, and were frightened off undertaking the relevant

training when a fall in the number of students starting training already signalled the following phase of shortage. Similar constellations can be expected in the future.⁷⁶

56. After a low point in the 1980s, the number of students starting their studies for a teaching qualification has fallen again from a good 42,000 in 1992 to almost 35,000 in 1998, rising again to almost 46,000 by 2001.⁷⁷ In the same period the number of graduates from higher education institutions with the first teaching examination rose from almost 10,000 in the early 1990s – this figure reflects the clearly falling number of applications for teacher training courses in the old Länder in the 1980s due to teacher unemployment – to more than 25,000 in 1998, falling back to slightly under 22,000 in 2002. A similar wave pattern is evident in the number of graduates of the preparatory service, starting at almost 10,000 in 1991 via just over 23,000 in 2000 to a good 20,000 in 2002. In its most recent forecast with regard to students starting and finishing their studies, the Standing Conference assumes that the number of students starting their studies in the teaching field will fundamentally remain at the present level. It anticipates that the number of graduates from higher education institutions with a first teaching examination will rise from almost 25,000 in 2001 to almost 30,000 in 2010 and beyond as the result of the increase in students starting their studies in the late 1990s.⁷⁸ Nevertheless, there are considerable uncertainties associated with these figures since future behaviour with regard to choice of study course and profession can hardly be forecast with sufficient certainty against the background of general developments in the labour market and the budget situation in the Länder – particularly with a view to the different developments by region as well as specific school types and subjects.

57. The development of the figures relating to students starting their courses and graduates is also a reaction to the current employment opportunities of trained teachers in the two past decades. Teachers were offered employment in the old and the new Ländern in accordance with clearly different patterns:

i. In the territory of the old Länder there was a dramatic fall in recruitment to the school service during the 1980s as a result of the demographically determined reversal in student numbers: while almost 34,000 teachers were still offered employment in 1980, it was no more than about 6,500 in the whole of West Germany in 1988, the lowest point of the development. After that there was a slow rise in the employment figures. In 2001, 28,000 teachers were taken into the school service again in the former Western Germany.

ii. In the territory of the new Länder, for which there are no figures before 1992, the development of the employment figures is clearly different: in the years since then, the annual values fluctuate between 621 (1993) and 2,820 (2001).⁷⁹

58. As the result of separate developments with regard to employment, the age structure of teaching staff also differs significantly: in 2001, 38 % of all teachers at general education schools in the new Länder, for example, were over 50 years of age; in the old Länder the comparative value is 45%.⁸⁰ Despite these differences, cyclical recruitment developments dominate. Years with a high level of new recruits alternate with years in which there are low recruitment figures, with the attendant consequences for the age structure of teaching staff and the associated innovative power. What differentiates the two parts of Germany is the fact that they are in different phases of this cyclical development.

59. Despite the clear rise in the number of applicants for teaching posts in the Federal Republic, the chances of employment in the latter half of the 1990s were altogether good. This is expressed, for example, in that the number of new recruitments in this phase clearly surpassed the annual number of graduates of the preparatory service by 30 to 40 %. This meant that the “queue” of teachers who were not given employment was noticeably reduced. Despite this there are still fully trained teachers in all teaching careers who are registered as

unemployed. They numbered about 17,000 in 2001, of whom about one third were registered as unemployed for a year or longer. Conversely, among the employed teaching staff there were also “side entrants” due to a specific shortage of applicants related to subject and school type, i.e. persons with a higher education qualification who do not have the first teaching examination and who are partly undertaking in-service educational and teaching method qualification. This applies in particular to vocational schools as well as to the subjects of mathematics and natural science, foreign languages and the artistic subjects in general education schools.

60. Internationally there are currently “some disturbing signs of shortfalls in teacher supply”⁸¹. In Germany, in contrast, no general shortage of teachers is anticipated from today’s perspective, always assuming that the current forecast of students starting their studies are confirmed in real study behaviour. However, differences related to region, school type and subject-specific developments are anticipated. This is likely to have the result that within certain limits a shortage of teachers coincides with teacher unemployment. Once again there are clearly different perspectives for the old and the new Länder particularly as a consequence of the differences in age structure of teaching staff.⁸²

i. High annual retirement figures in the West connected with only moderately falling student numbers there lead to high new recruitment values. It may be assumed that the annual recruitment figures will lie at 25,000 up to about 2015. This means that in the old Länder there is a high annual replacement rate among teaching staff which is also growing younger. This represents considerable innovation potentials for schools in western Germany. Within this framework favourable employment chances in the medium term will arise for teaching graduates at primary level and the non-*Gymnasium* courses at lower secondary level, while a growing number of graduates for a *Gymnasium* teaching career must anticipate not finding a job in the school service – apart from in the shortage subjects quoted. However, the recruitment volume may fall in proportion to the extent that the weekly teaching commitments are increased. The increase of the teaching load by one hour produces a reduction of teacher demand by 22,000 posts in Western Germany.

ii. In the east, by contrast, the average annual figures for recruitment will not exceed 2,000 until 2015: in the years to 2010 it will be significantly less, in the years after that equally clearly above. For the teaching staff this means that their average age in the coming years will clearly rise and that educational innovation must be introduced to schools not by way of an initial training in higher education institutions and seminars but through further education for teachers.

61. In both parts of Germany the vocational schools in general and in the long term will continue not to be able to cover their teacher demand from graduates coming from the teacher training institutions for vocational schools. They are dependent to a large degree on the recruitment of side entrants. In addition, there will be shortages in certain subjects in all school types: these are likely to occur in mathematics and natural science subjects, musical subjects and in English. But these predictions of shortages only apply if the announcement of specific requirements does not influence the choice of subject for study of school leavers in such a way that the rug is pulled out from under the forecasts.

10. CURRENT SITUATION OF TEACHER TRAINING

62. Teacher training in Germany is currently largely determined by the school types of the tiered school system.⁸³ Alongside the training for primary school there is the training for teaching posts at lower and upper secondary level (*Hauptschulen, Realschulen, Gymnasien,*

vocational schools) and for the various forms of special schools. The different teaching careers are partly combined (such as the non-*Gymnasium* teaching careers at lower secondary level or the primary teaching career with lower secondary level teaching careers). All teaching careers have in common that the study courses are located at universities. Only in Baden-Württemberg are the study courses for the teaching career at primary schools and at *Hauptschulen* undertaken at *Pädagogische Hochschulen*, i.e. higher education institutions for teacher training, as an independent form of academic higher education institution. Attempts in the 1970s to replace school type-related with school level-related teacher training failed to establish themselves to the same extent as endeavours to remove the separation between the study course and the stage of practical teaching work after having passed the first state examination and replace it by a one-phase teacher training course.

63. In spite of partly divergent formal requirements, teacher training in Germany results in a remarkably homogeneous style of teaching in the individual Länder as confirmed by student feedback in the context of current comparative performance assessments⁸⁴.

64. Depending on the particular teaching career, a standard period of study of 7 to 10 semesters is established for the courses of study, in which the course and examination can be completed (so-called *Regelstudienzeit*). However, only part of the students finish their studies within this period while a substantial number of students takes considerably more time⁸⁵. The following preparatory service (so-called *Referendariat* or *Vorbereitungsdienst*) lasts two years. Some Länder have proceeded to, or intend to reduce the preparatory service to one year and a half, crediting placements in schools during university studies.

65. Teaching careers structured by school type in the meantime also characterise teacher training in the new Länder. There they have replaced a type of teacher training which for lower grade teachers (“teachers for the lower classes”) was for a long time carried out at teacher training institutes outside the higher education institutions. Not until the 1980s did the transformation of the GDR teacher training institutes into education institutes at higher education institutions start. In contrast, teachers at the *Polytechnische Oberschulen* (polytechnic high schools) and the *Erweiterte Oberschulen* (extended high schools – EOS) were all trained in higher education institutions (“diploma in teaching”)⁸⁶.

66. Differences in school structures produce differences in the formal requirements for teacher training in the teacher training legislation and examination regulations of the individual Länder. Although the Hamburg Agreement set out that “the teaching career examinations carried out in accordance with the recommendations of the Standing Conference” should be reciprocally recognised,⁸⁷ the linkage of training to the Land-specific school structures nevertheless leads to considerable restrictions of cross-Land mobility. Particularly if there is a surplus of applicants, there is a clear preference to employ teachers which have been trained within the respective Land. To this extent one can talk of a “unified teaching labour market” in the Federal Republic only to a limited degree. This, too, can be interpreted as an expression of the hitherto very strongly “input-oriented” control of the school system in Germany: the decisive factor for employment and pay grade assignment is deemed to be the adherence to formal conditions of training, the absence of which can only be compensated for with difficulty even though there may be a successful career development and the proven ability to cope with a variety of requirements.

67. In primary schools and *Hauptschulen* as well as in many special schools the class teacher concept dominates, whereas in *Realschulen* und *Gymnasien*, but also in the integrated comprehensive schools, the subject teacher principle is dominant. Correspondingly, subject, teaching method and education theory or educational and psychological expertise is given different emphasis as early as during the study course and the subsequent stage of practical teaching work after having passed the first state examination. Training for teaching careers in

Realschulen und *Gymnasien* is strongly characterised by subject-related components while the training of teachers for primary schools, *Hauptschulen* and special schools is determined by education theory and educational and psychological components. Teaching careers are further distinguished by length of training, salary level and career opportunities. All of these things have an effect on the choices made in selecting a study course. Thus significantly more women than men decide on a teaching career in primary and special schools, significantly more men in favour of the mathematical and natural sciences as well as historical and social science fields of *Realschulen* and *Gymnasien*. The recruitment of vocational school teachers is largely subject to other conditions: here the reference to the respective professional training (i.a. through the relevant previous training) plays a decisive role in the choice of teaching career and subject combination.

68. This difference in training content means that in primary schools and *Hauptschulen*, in special schools (differentiated by the disability concerned) and partly in the lower courses of integrated comprehensive schools a considerable part of (subject) teaching is undertaken without specific subject training. According to initial findings of the current primary school studies (PIRLS),⁸⁸ a mere 19 % of German teachers surveyed as part of the PIRLS study said that they had studied reading support at greater depth, while 28 % had studied reading theory and 35 % language development in children at greater depth. Whereas on an international average 71 % of children are taught by teachers who have studied the national language as a medium and subject of teaching, this figure in Germany was only 51 %. Barely one third of the primary school staff teaching mathematics were trained in the subject in their studies. About half the teachers for applied science/social studies at primary level said that during their studies they had been (rather) greatly interested in the working methods and scientific findings of biology, while for physics it was 18 % and chemistry 15 %.⁸⁹ No data exist about the extent of subject teaching provided by teachers without specific training in the other school types or school levels.

69. Neither are the majority of teachers trained or have undergone further training for the teaching of multi-lingual students. Although all the Länder have programmes for the acquisition of supplementary qualifications for teaching multi-lingual children and adolescents, the use of the corresponding trained teaching staff mostly remains restricted to (language) support teaching as a supplement to lessons. Promoting the language competency of children and adolescents is as yet hardly seen as a task for all subjects. The systematic study of the (subject) language prerequisites for learning in the subjects is only beginning to be tied into the respective subject teaching methods. The prevention of and dealing with learning difficulties outside special education is equally as little a part of the core curriculum for teacher training. Here advice is sought from teachers with supplementary qualifications (reading and writing difficulties, dyscalculia, general learning difficulties), school psychologists or medical and therapeutic institutions in individual cases. The regular use of (supporting) diagnostic tools is not part of the repertoire of specialist subject teachers, neither in their training nor further training.

70. The examination which concludes teacher training is designed as a “state examination”. It is not held by the training institutions but by the state examination authorities of which, however, teachers at higher education institutions are members. The examinations of physicians and lawyers (and theologians to the extent that they are held by the respective churches) are similarly organised. Basically this represents a continuation of the difference, already diagnosed by Immanuel Kant, between “upper” and “lower” faculties.⁹⁰ The former provide training for professions in the exercise of which the state has an interest and over which it therefore wishes to gain influence with regard to the training content and certification of performance as the basis for employment decisions, while the latter have a responsibility purely to science and hence act autonomously.

11. REFORM OF TEACHER TRAINING

71. The debate over the reform of teacher training has been conducted in Germany in the individual Länder⁹¹, the Standing Conference⁹² and in the *Wissenschaftsrat* (Science Council)⁹³ for a considerable time – and not just since PISA – but it has gained a particular relevance through the results of the comparative studies on student performance. The background to the reform debate is the perception that the work of teachers has become more difficult in view of social developments and the associated changes in the conditions under which children and adolescents grow up and the growing heterogeneity of students from a cultural and ethnic perspective, and that these difficulties cannot be overcome with the outdated traditions and routine practices of the teaching profession. At the same time the expectations that schools and teachers should deal with many different social problems have risen. They extend from the reaction to the diminishing educative ability of families to the management of drug problems and dealing with the negative consequences on health of living in a “consumer and media society”.

72. Nevertheless, there is far-reaching unanimity about the necessity of reform and the deficits of the current form of training. These include in particular

- i. the absence of agreement about the core elements of the mandatory content of study courses particularly in respect of the foundations of education theory: the teaching on offer in this field is frequently determined by the individual interests of the lecturers without the departments defining the basic issues which lecturers should be obliged to teach as the content of a common teaching provision with the aim of a systematic preparation for the teaching profession,⁹⁴
- ii. the resistance of the subject-related areas (subjects) in dealing with the problems of teacher training: the academic training of prospective teachers is generally organised together with the training of future specialists in these subjects, in which context it is often left to the students to decide which components from the broad range of the respective specialist area they wish to select. This applies in particular to the humanities and cultural studies, the provision of which is generally less structured than the provision of the natural sciences;
- iii. the considerable deficits in subject methodology training: they are also an expression of the deficit in empirical research in the subject methodologies and a lack of qualified academic new blood in this area;
- iv. the absence of an accepted “location for teacher training” in the higher education institutions at which the coordination and linkage of all subject, methodological and general education theory content required for all teaching courses would be organised: *Gymnasium* teachers starting on their studies primarily orient themselves by the subject they are going to teach (specialist subjects) and the specialist departments responsible for them; teachers starting out on their training for other teaching careers in contrast do so primarily by the basic subjects of education theory and general education teaching provision. There is often no coordination in terms of content, time and organisation between the teaching provision for the different specialist areas involved. Organisation structures which would be in a position to support cooperation among the disciplines involved in teacher training in terms of teaching and research are poorly developed;
- v. the lack of clarity with regard to specific tasks of the institutions involved in the various phases of teacher training, particularly the higher education institutions (first phase) and teacher training colleges (second phase): the attempt at reciprocal

delimitation between the institutions is often far more pronounced than the endeavour to achieve cooperation and safeguard linkages.

vi. the absence of systematic qualification of the teaching staff in the teacher training institutions which are not part of the higher education institutions (teacher training colleges and institutions of further teacher training);

vii. the break between training and professional activity – sometimes described as “practice shock”: this points both to deficits in a training which is guided too little by the real problems faced at schools and to the absence of a clear conception for systematic on-the-job learning which sees the first phases of training as a part of a development which starts with the study course and preparatory service (stage of practical teaching work after having passed the first state examination) but which is by no means concluded by that;

viii. the absence of “standards” of teacher training which could become the basis for a systematic evaluation of teacher training and corresponding feedback in all the different fields and institutions involved: there is little knowledge in Germany about the actual situation of teacher training and its effects. That is the background to the scientific report on “Standards for Teacher Training” commissioned by the Standing Conference as the basis for an evaluation of the different approaches to teacher training in Germany.⁹⁵

73. Against this background different reform concepts for teacher training are currently being debated in Germany.

i. On the one hand an approach is being pursued which builds on the existing teacher training system of a study course leading to a first degree where from the start of the course subject-related studies (subjects) are to be undertaken against the horizon of the way that children and adolescents learn and which is to be linked with the subject methodology and general teaching theory content (general teaching methodology and school education, developmental psychology, educational sociology, institutional foundations of the education system, etc.). The objective of this approach is optimisation within the existing framework of teacher training in Germany, particularly through making the training content more binding on lecturers and students (core curricula) and a stronger orientation of the training towards dealing on an academic level with central problems which are part of the reality of schools and lessons.⁹⁶ This approach also adheres to the principle of the state examination but recommends partial modification of the examination procedure through the award of an integral state examination certificate at the end of the second training phase which includes the performance in the first phase on the basis of the ECTS model and describes training performance and examination results in a personal portfolio.⁹⁷

ii. This is opposed by an approach which sees the present structures as a key cause for the existing problems and thus endeavours to achieve fundamental system change in the form of “consecutive training courses” as part of the “Bologna Process”.⁹⁸ The basis of this approach is that the first part of the teacher training course should concentrate on the specialist subjects and be embedded in a general restructuring of the higher education system through the establishment of bachelor and master courses. This is intended to hold open the option of selecting different qualifications in a second training phase relating to specialist subjects or the teaching career. Accordingly, the school and teaching-related elements of a teacher training course should be concentrated in the second study phase (Master phase). A part of this approach is the recommendation that the examination at the end of the higher education

study course (first phase) should be organised in future as an examination of the higher education institution itself.

iii. A combination of these two approaches is attempted by reform concepts which adhere to the principle of a teacher training course leading to a first degree and link school and teaching-related elements with subject studies from the beginning, but which wish to structure the study course as a whole in accordance with the principles of differentiating between bachelor and master qualifications. The reform concept of the Land of Rhineland-Palatinate has become a specific example of this.⁹⁹ The bachelor phase is to be broadened in content in comparison to the current structure in its early orientation towards the different school types. More in-depth studies related to school type are to be located in the master phase alongside the continuation of the study of the specialist subject content of the subjects. This integrating proposal takes account of the criticism voiced from many sides that a strict “consecutive model” would intensify and fix institutionally the separation of specialist subjects and the study of education and teaching methodology.

74. New forms of teacher training in different variants of the Bachelor/Master model are currently being tested in pilot studies at various higher education institutions which as a rule incorporate teaching career related study elements into the first phase. A general conversion of teacher training in Germany in accordance with this model is not currently on the cards. Indeed, decisions in this respect can only be made once sufficient experience has been gathered from current and, if necessary, future pilot studies.

75. All the approaches to reform continue to adhere to specific structural elements of current teacher training, at least for the time being. These elements include the fundamental differentiation between teaching careers, harmonising with the current structure of the German school system, and preserving the structure of study courses and preparatory service (first and second phase of initial teacher training). Nevertheless, trends towards greater flexibility, at least in respect of the latter aspect, can be seen in the greater cooperation and better coordination between higher education institutions and teacher training colleges, sometimes connected with a reduction of the stage of practical teaching work after having passed the first state examination. All reform proposals include safeguarding the overarching context of teacher training studies by modularisation of the available training for teachers. Equally they plead for different forms of better organisational support of teacher training in the higher education institutions (centres for teacher training or independent departments).

76. One problem common to all reform models is coping with the different interests of the teacher training institutions involved. Whereas the higher education institutions link teacher training primarily to the interests of the respective disciplines, there is greater emphasis during the stage of practical teaching work after having passed the first state examination on the school requirements with regard to subject teaching and the educational tasks of the teacher. In contrast, higher education institutions tend not to offer courses which explicitly relate to the field of work. The problem of the difference between disciplines and professions has been discussed for a long time, but subjects such as education on an academic level have not so far found a way of working with this difference adequately in teaching and research. A lecturer at a higher education institution as a rule gains a reputation through research work which takes up themes of the discipline. Empirical research which concerns itself with school and teaching, and thus with the teaching profession, is still not undertaken to a sufficient degree. The German Research Foundation has embarked on new paths in this respect through the announcement of special programmes und research groups for education research.

77. Aspiring teachers must always anticipate in certain areas not to be employed in the school service due to the over-supply of applicants, and they must be prepared to seek alter-

native work outside the school service. This has given rise to considerations regarding the promotion of opportunities for professional activity outside school as early as in teacher training (“polyvalency”). This subject also plays a role in more recent recommendations on the reform of teacher training. The basis for professional activity outside of school can be provided by subject competency, competency in education and teaching theory, or by qualifications independent of subject as can be generally acquired through academic study and expanded, if necessary through additional modules. Experience and research in this area exist above all from the 1980s when the employment of teachers fell to a particularly low level.¹⁰⁰ It can easily be justified that the preparation for professional teaching activity as a target of teacher training can be combined with the requirements of polyvalency.¹⁰¹ Hence there is no compelling argument to weaken the relationship between teacher training and the school as the field of professional activity in favour of more diverse, largely indeterminate employment opportunities. Another issue is the extent to which a “disposition towards mobility”, i.e. a readiness to look at other objectives which lie outside their original life plan and to familiarise themselves with other fields at the appropriate time, exists among student teachers in view of the mechanisms of specific professional self-recruitment,¹⁰² how such a disposition can be supported, when the decision to pursue an alternative occupation should be taken and how potential employers can be persuaded to honour in reality the qualification and willingness to be mobile of the teaching candidates.

12. IN-SERVICE LEARNING: PHASE OF ENTRY INTO THE PROFESSION AND FURTHER TRAINING

78. Finally, the different approaches to reform have in common an understanding of teacher training as a development process which continues beyond the study course and stage of practical teaching work after having passed the first state examination into professional life and which must be systematically supported there (“professional biography approach”). Thus they do not understand teacher training as the endeavour to give prospective teachers the greatest possible supply of strategies for action to manage different teaching situations as part of a broadly set up “initial investment” and to “refresh” this on occasion through further training; they understand it as the development of the ability to find solutions to the specific problems encountered in the profession on the basis of knowledge and skills acquired during training which is continuously extended and deepened through “in-service learning”. The first years in the profession above all are seen as decisive in building up a professional approach which can offer a secure basis for managing the professional demands and stresses. In-service learning should be understood increasingly less – if at all – as “instruction”; it should rather be understood as “construction” and “reflection” which belongs to the work and for the results of which responsibility should be taken. This does not require instruction but the creation of opportunity structures which enable learning and the taking on of responsibility in managing increasingly demanding professional situations. Such an understanding of professional development and qualification has been self-evident in many academic professions (physicians, lawyers, engineers, etc.) for a long time. But it has still found too little entrance into teacher training in Germany. The idea is still prevalent that teaching candidates have become “finished” teachers on conclusion of their training. They are therefore placed where problems need solving from the perspective of the organisation concerned and not where as novices in the profession they could learn the most and develop their professional competency the best.

79. In-service learning continues beyond the phase of entry into the profession. This learning is more than an individual qualification process. On the contrary, it is joint learning and should thus be understood as a part of the development of the organisation concerned. Such an understanding of “further training” gives it a new quality. In this spirit a change in the structure of the provision for further training and in the way of working of the teacher training institutions in Germany has been evident for some time. They are thus following the

trends which van Lakerfeld has described in an overview of developments in the further training of teachers in Europe.¹⁰³ According to this, the importance, for example, of further training as an instrument of change in schools and teaching is growing. Further training activities in the context of consultancy, research and curriculum development as well as further training in the context of networks (“schools learn from one another”) are growing in importance. The organisation of further training is shifting from the provision of further training at further training institutes to activities in schools which take specific account of the development ideas of the individual organisations. Within this framework the issue also arises as to the tasks which the academic institutions, particularly the higher education institutes, should assume as part of the process of further training. They are not just involved in the development of the school system on the basis of their training function. Schools and teaching are also the subject of research the results of which in turn must become the basis for further training activities. Further training as a task of higher education institutions is catered for in all higher education legislation. But this task is hardly, if at all, observed by higher education institutions at present.

80. Despite these development trends, the further training of teachers in Germany must be considered to be underdeveloped when compared to other industrialised nations.¹⁰⁴ This, too, can be traced back to the administrative understanding of control and training in an “input controlled” school system which is still characteristic of Germany: the initial training of teachers is comparatively costly and intensive, the control of the state over adherence to the training and examination regulations high, whereas the ongoing inspection and support of competency development of teachers once they are in post is largely lacking.¹⁰⁵ Further training is partly defined in law as an obligation of teachers. But teachers mostly decide themselves about their participation in further training provisions.¹⁰⁶ Many teachers make use of further training provisions but there are also many who have no interest in such provisions and do not participate. There is a lack of ideas as to how the obligation to undertake further training can be enforced if necessary. An obligation to undertake further training can hardly be enforced by regulations and instructions. On the contrary, it requires a professional culture which links teachers into the activities for the development of their school and subjects while at the same time making clear that overcoming “teacher individualism” – deeply rooted in training and professional socialisation – through cooperation among colleagues is a key prerequisite for successful educational work in Germany.

¹ Tillmann, K.-J.: Erziehungswissenschaft und Bildungspolitik. Erfahrungen aus der jüngsten Reformphase. In: Zeitschrift für Pädagogik 37 (1991), pp. 955 – 974; Terhart, E.: Bildungsforschung, Bildungsadministration, Bildungswirklichkeit: Eine systematische Annäherung. In: Tillmann, K.-J./Vollstädt, W. (eds.): Politikberatung durch Bildungsforschung. Das Beispiel: Schulentwicklung in Hamburg. Opladen. 2001. pp. 17 – 32.

² Keuffer, J./Oelkers, J. (eds.): Reform der Lehrerbildung in Hamburg. Abschlußbericht der Hamburger Kommission Lehrerbildung. Weinheim und Basel. 2001, p. 164 and following pages.

³ Anweiler, O.: Grundzüge der Bildungspolitik und des Bildungswesens seit 1945. In: Bundesministerium für Innerdeutsche Beziehungen (ed.): Vergleich von Bildung und Erziehung in der Bundesrepublik Deutschland und in der Deutschen Demokratischen Republik. Köln. 1990. p. 23.

⁴ Bundesministerium für Bildung und Forschung: Grund- und Strukturdaten 2001/2002. Bonn 2003. pp. 70-71. (as of: 2000)

⁵ Anweiler, loc. cit.. (Note iii), p. 17.

⁶ For details cf.: Baumert, J./Trautwein, U./Artelt, C.: Schulumwelten – institutionelle Bedingungen des Lehrens und Lernens. In: Deutsches PISA-Konsortium (ed.): PISA 2000 – Ein differenzierter Blick auf die Länder der Bundesrepublik. Opladen 2003, p. 261 and following pages.

⁷ For details cf. OECD: Knowledge and skills for life. First Results from PISA 2000. Paris. 2001; Deutsches PISA-Konsortium (ed.): PISA 2000. Basiskompetenzen von Schülerinnen und Schülern im internationalen Vergleich. Opladen. 2001; Deutsches PISA-Konsortium (ed.): PISA 2000 – Die Länder der Bundesrepublik Deutschland im Vergleich. Opladen. 2002; Deutsches PISA-Konsortium (ed.): PISA 2000 – Ein differenzierter Blick auf die Länder der Bundesrepublik. Opladen. 2003.

⁸ In this context the strategies of the Hamburg survey are noteworthy. Here, the progress in performance of a complete age group beginning with Year 5 was studied every two years (for the results cf. Lehmann, R. H./Peek, R. unter Mitarbeit von Gänsfuß, R.: Aspekte der Lernausgangslage von Schülerinnen und Schülern der fünften Klassen an Hamburger Schulen. Bericht über die Untersuchung im September 1996. Behörde für Schule, Jugend und Berufsbildung. Hamburg. 1997; Lehmann, R. H./ Gänsfuß, R./Peek, R.: Aspekte der Lernausgangslage und der Lernentwicklung von Schülerinnen und Schülern der an Hamburger Schulen – Klassenstufe 7. Bericht über die Untersuchung im September 1998. Behörde für Schule, Jugend und Berufsbildung. Hamburg. 1999; Lehmann, R. H./ Peek, R./Gänsfuß, R./Husfeldt/V.: Aspekte der Lernausgangslage und der Lernentwicklung – Ergebnisse der Längsschnittstudie für die Klassenstufe 9. Behörde für Bildung und Sport. Hamburg. o.J. (2001). At present, another longitudinal survey is under way (Kompetenzen und Einstellungen von Schülerinnen und Schülern der vierten Jahrgangsstufe – KESS 4- „Competences and attitudes in Year 4“). The first survey (Year 4) has been carried out this year. The first results will be available in 2004.

⁹ For the results cf. Bos, W./Lankes, E.-M./Prenzel, M./Schwippert, K./Walther, G./Valtin, R. (Hrsg.): Erste Ergebnisse aus IGLU. Schülerleistungen am Ende der vierten Jahrgangsstufe im internationalen Vergleich. Münster usw.. 2003.

¹⁰ As an example, the project "Lesen und Schreiben für alle" – "Reading and Writing for all" (PLUS) in Hamburg could be cited, in which diagnostic instruments and remedial strategies were developed and advisers trained who coordinate implementation in schools and support and train teachers: May, P.: Projekt Lesen und Schreiben für alle (PLUS) – Entwicklung des Konzepts und Evaluation der Lehrerfortbildung im Schuljahr 1993/94. Bericht der wissenschaftlichen Begleitung Nr. 94/03 unter Mitarbeit von Ruddat, H. und Maas, St. Behörde für Schule, Jugend und Berufsbildung. Hamburg. 1995; May, P.: Lernförderlichkeit im schriftsprachlichen Unterricht. Effekte des Klassen- und Förderunterrichts in der Grundschule auf den Lernerfolg. Ergebnisse des Projekts "Lesen und Schreiben für alle" (PLUS). Behörde für Schule, Jugend und Berufsbildung. Hamburg. 2000; as concerns the promotion of mathematics and science teaching in lower secondary education in the context of the pilot scheme "SINUS" of the BLK cf. The reports by Prenzel and Baptist in: Bundesministerium für Bildung und Forschung (ed.): TIMSS – Impulse für Schule und Unterricht. Forschungsbefunde, Reforminitiativen, Praxisberichte und Video-Dokumente. Bonn. 2001.

¹¹ Klieme, E./Avenarius, H./Blum, W./Döbrich, P./Gruber, H./Prenzel, M./Reiss, K./ Riquarts, K./Rost, J./Tenorth, H.-E./Vollmer, H.: Zur Entwicklung nationaler Bildungsstandards. Eine Expertise im Auftrag des Bundesministeriums für Bildung und Forschung. Frankfurt am Main 2003; Tenorth, H.-E.: Bildungsziele, Bildungsstandards und Kompetenzmodelle. In: Recht der Jugend und des Bildungswesens 2003, Heft 2, pp. 156 – 164.

¹² Tillmann, K.-J. (ed.): Lehrpläne und curriculare Kooperation im Schulalltag. Ergebnisse empirischer Untersuchungen an hessischen Schulen. Bielefeld 1996; Tillmann, K.-J.: Lehrpläne - (K)ein Thema für den Schulalltag? In: Pädagogik. Heft 5/1996, pp. 6-8; Vollstädt, W./ Tillmann, K.-J. Rauin, U./Höhm, K./Tebrügge, A.: Lehrpläne im Schulalltag. Eine empirische Studie zur Akzeptanz und Wirkung von Lehrplänen in der Sekundarstufe I. Opladen. 1999.

¹³ The foreign language skills (English) of German pupils are the subject of a separate empirical study commissioned by the Conference of Education Ministers as a supplement to PISA. It is carried out by a research group under the direction of the Deutsches Institut für Internationale Pädagogische Forschung (DIPF) in Frankfurt/Main. (Beck, B./Klieme, E.: DESI – Eine Längsschnittstudie zur Untersuchung des Sprachunterrichts in deutschen Schulen (in print; to be published in : Empirische Pädagogik, 2003).

¹⁴ H.-E. Tenorth: Kerncurriculum Oberstufe: Mathematik, Deutsch, Englisch. Beltz-Verlag. Weinheim und Basel, 2001.

¹⁵ Cf. OECD, loc. cit.. (Note 7), pp. 77-78.

¹⁶ A first analysis has revealed, however, that part of the variation between the *Länder* can be explained by differences in the socio-economic structures of the *Länder* (variable proportions of pupils from immigrated families and different percentages of persons without employment or on social security) as well as by differences in learning time (time-tables), but not by differences in teacher supply (Deutsches PISA-Konsortium: PISA 2000 – Die Länder der Bundesrepublik Deutschland, loc. cit.. (End note 7), p. 219 and following pages).

¹⁷ Baumert, J./Schümer, G.: Schulen als selektionsbedingte Lernmilieus. In: PISA 2000. Basiskompetenzen,, aaO. (End note 7), pp. 454 – 467; Baumert u.a. : Schulumwelten, In: Deutsches PISA-Konsortium (Hrsg.): PISA 2000 – Ein differenzierter Blick, loc.cit.. (End note 7), p. 267 and following pages.

¹⁸ Cf.. Keuffer, J./Oelkers, J.(ed.): loc.cit. (End note 2), p. 150 and following pages.

¹⁹ Klieme, E./Rakoczy, K.: Unterrichtsqualität aus Schülerperspektive: Kulturspezifische Profile, regionale Unterschiede und Zusammenhänge mit Effekten von Unterricht. In: Deutsches PISA-Konsortium (ed.): PISA 2000 – Ein differenzierter Blick, loc. cit. (End note 7), pp. 333 –359.

²⁰ Bos u.a. (eds.): loc.cit. (End note 9), p. 130 and following pages; cf. Also earlier surveys on the competence levels in Year 5 in Hamburg: Lehmann, R./Peek, R./Gänsfuß, R.: loc.cit. (End note 8).

²¹ Baumert et.al. : Schulumwelten – institutionelle Bedingungen des Lehrens und Lernens. In: Deutsches PISA-Konsortium (ed.): PISA 2000 – Ein differenzierter Blick, loc.cit. (End note 7), p. 290 and following pages.

²² Baumert et.al. : Schulumwelten – institutionelle Bedingungen des Lehrens und Lernens. In: Deutsches PISA-Konsortium (ed.): PISA 2000 – Ein differenzierter Blick, loc.cit. (End note 7), p. 313 and following pages.

²³ Cf.. OECD: Bildung auf einen Blick – OECD-Indikatoren 2002. Paris 2002, p. 190.

²⁴ Calculations by the authors on the basis of BMBF: loc.cit. (End note 4), p. 331.

²⁵ Calculations by the authors on the basis of OECD: loc.cit. (End note 22), p. 235.

²⁶ Cf. OECD: loc.cit. (End note 22), p. 177, and calculations by the authors for the senior secondary level.

²⁷ Cf. BMBF: loc.cit. (End note 4), p. 18.

²⁸ Cf. BMBF: loc.cit. (End note 4), p. 339.

²⁹ Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung: BLK-Bildungsfinanzbericht 1999/2000. vol.I. Bonn. 2001, p. 44.

³⁰ Cf.. BMBF: loc.cit., (End note 4), p. 382.

³¹ Cf. OECD: Bildung auf einen Blick. OECD-Indikatoren 2001. Paris 2001. p. 39.

³² Statistisches Bundesamt Deutschland: Bevölkerungsentwicklung Deutschlands bis zum Jahr 2050. Ergebnisse der 9. Koordinierten Bevölkerungsvorausberechnung. Wiesbaden. 2000.

³³ Cf. BMBF: loc.cit. (End note 4), p. 382

³⁴ Cf. KMK: Vorausberechnung der Schüler- und Absolventenzahlen 1999 bis 2015. Bonn. 2001. p. 22.

³⁵ On the following cf. in particular: Bade, K./Münz, R. (ed.): Migrationsreport 2002. Fakten – Analysen – Perspektiven. Frankfurt am Main. 2002; Beauftragte der Bundesregierung für Ausländerfragen: Daten und Fakten zur Ausländersituation. Mitteilungen der Bundesregierung für Ausländerfragen. Berlin. Februar 2002; Bundesministerium des Inneren (ed.): Zuwanderung gestalten. Integration fördern. Bericht der Unabhängigen Kommission "Zuwanderung". Berlin. 2001; Deutscher Bundestag, 14. Wahlperiode (ed.): 6. Familienbericht. Familien ausländischer Herkunft in Deutschland. Leistungen – Belastungen – Herausforderungen. Drucksache 14/4357. Berlin. 2000; Gogolin, I./Neumann, U./Roth, H.-J.: Förderung von Kindern und Jugendlichen mit Migrationshintergrund. Gutachten. Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung. Materialien zur Bildungsforschung und zur Forschungsförderung. Heft 107. Bonn. 2003.

³⁶ For details cf. Baumert, J./Schümer, G.: Familiäre Bildungsbeteiligung und Kompetenzerwerb. In: Deutsches PISA-Konsortium (ed.): PISA 2000. Basiskompetenzen, loc.cit. (End note 7), pp. 323 – 407; Baumert, J./Schümer, G.: Familiäre Bildungsbeteiligung und Kompetenzerwerb. In: Deutsches PISA-Konsortium (ed.): PISA 2000. Die Länder der Bundesrepublik Deutschland, loc.cit. (End note 7), pp. 159 – 202.

³⁷ Bade/Münz, Bericht der Unabhängigen Kommission Zuwanderung 2001 und Gogolin/Neumann/Roth, loc.cit. (End note 34). Additionally cf. Ferner Laczó, F. et al.: New Challenges for Migration Policy in Central and Eastern Europe. o. O. 2002 (IOM/ICMPD/MMC Asser Press). 2002.

³⁸ Gogolin, I./Neumann, U./Roth, H.-J.: Förderung von Kindern und Jugendlichen, loc.cit. (End note 34), p. 28.

- ³⁹ Pries, L.: Neue Migration im transnationalen Raum. In: Pries, L. (ed.): Transnationale Migration. Soziale Welt. Sonderband 12 (1997). pp. 15 – 36; Pries, L.: "Transmigration" als ein Typ von Arbeitswanderern in pluri-lokalen sozialen Räumen. In: Gogolin, I./Nauck, B. (ed.): Migration, gesellschaftliche Differenzierung und Bildung. Opladen. 2000. pp. 415 – 437.
- ⁴⁰ In the last years immigration is declining. Cf. Statistisches Bundesamt Deutschland: Statistisches Jahrbuch 2002. Wiesbaden. 2002. p. 79.
- ⁴¹ Nauck, B.: Demographische Entwicklungen und Gründe für weitere Zuwanderung nach Deutschland. Vortrag zum 1. Workshop "Förderung von Kindern und Jugendlichen mit Migrationshintergrund" der BLK-Projektgruppe "Innovationen im Bildungswesen". Manuskript. 2003. Bundesministerium des Inneren 2001: loc.cit. (End note 34), pp. 13-14.
- ⁴² Reich, H.-H./Roth, H.-J. in Zusammenarbeit mit Dirim, I./Jörgensen, J. N./List, G./Neumann, U./Siebert-Ott, G./Steinmüller, U./Teunissen, F./Vallen, T./Wurnig, V.: Spracherwerb zweisprachig aufwachsender Kinder und Jugendlicher. Ein Überblick über den Stand der nationalen und internationalen Forschung. Behörde für Bildung und Sport. Hamburg und Landau/Pfalz. 2002.
- ⁴³ Frequently, teachers who are not successful in their job have already revealed weaknesses and unsuitable strategies to overcome stress in their university studies (Urban, W.: Untersuchungen zu Netzwerken erlebter Belastungen bei künftigen Pflichtschullehrern. In: Sieland, B., Reißland, B. (Hrsg.): Qualitätssicherung in der Lehrerbildung. Lehrerarbeit: Bedingungsfaktoren und Qualitätskriterien. Hamburg. 2000. pp. 93 – 137. These problems have to be tackled in teacher training. Furthermore they are of importance in career guidance and in recruitment decisions.
- ⁴⁴ Cf. Bellenberg, G./Böttcher, W./Klemm, K.: Stärkung der Einzelschule. Neuwied. 2001, p. 91 and following pages.
- ⁴⁵ Cf. the recommendations of the commission set up by the Conference of Education Ministers (Terhart, E. (ed.): Perspektiven der Lehrerbildung in Deutschland. Abschlussbericht der von der Kultusministerkonferenz eingesetzten Kommission. Weinheim und Basel. 2001. pp. 143 and following pages.
- ⁴⁶ Cf. Jehle, P.: Vorzeitige Pensionierung von Lehrerinnen und Lehrern – Eine Analyse amtlicher Materialien aus den alten Bundesländern. Frankfurt am Main. 1996. Jehle, P.: Vorzeitige Pensionierung von Lehrerinnen und Lehrern – Befunde und Desiderate der Forschung. In: Buchen, S. et al. (eds.): Jahrbuch für Lehrerforschung, Bd.1, Weinheim etc., 1997, pp. 247 - 275.
- ⁴⁷ Bund-Länder-Projektgruppe "Eindämmung von Frühpensionierungen", unpublished draft report (as of.: Dezember 2002).
- ⁴⁸ From an economic point of view, i.e. if overall costs and not only education budgets are considered, employing teachers as salaried employees instead of civil servants offers advantages (Färber, G./Stiller, S./Schaft, W.: Zur Einstellungspräferenz von BeamtenInnen und Angestellten im Schulbereich. HWWA-Report 195. HWWA-Institut für Wirtschaftsforschung, Hamburg. 1999.
- ⁴⁹ Calculations by the authors on the basis of: Statistisches Bundesamt: Bildung und Kultur – Allgemeinbildende Schulen bzw. Berufsbildende Schulen. Wiesbaden. 2002.
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- ⁵¹ Schönwälder, H.-G.: Belastungen im Lehrerberuf. Empirische Daten, Befunde, Aspekte. In: Gudjons, H. (ed.): Entlastung im Lehrerberuf. Hamburg, 1993, pp. 11 - 20; Schönwälder, H.-G.: Dimensionen der Belastung im Lehrerberuf – Versuch einer Orientierung. In: Buchen, S. et al. (eds.): Jahrbuch für Lehrerforschung, Bd. 1. Weinheim u. a., 1997, pp. 179 - 202; Klemm, K.: Zeit und Lehrerarbeit. In: Rolff, H.-G./Bauer, K.O./Klemm, K./Pfeiffer, H. (eds.): Jahrbuch der Schulentwicklung. Band 9. Daten, Beispiele und Perspektiven. Weinheim und München 1996. pp. 115-142.
- ⁵² Terhart, E.: Lehrerberuf und Lehrerbildung. Forschungsbefunde, Problemanalysen, Reformkonzepte. 2001, pp. 58, 100, 147 and following pages.
- ⁵³ Cf. also the results of the international primary education study IGLU: Lankes, E.-M./Bos, W./Mohr, I./Platzmeier, N./Schwippert, K.: Lehr- und Lernbedingungen in den Teilnehmerländern. In: Zu den Ergebnissen vgl. Bos, W et al. (eds.): Erste Ergebnisse aus IGLU....., loc.cit. (End note 9), pp.55-56.
- ⁵⁴ Schaarschmidt, U./Fischer, A. W.: Bewältigungsmuster im Beruf. Persönlichkeitsunterschiede in der Auseinandersetzung mit der Arbeitsbelastung. Göttingen. 2001. Schaarschmidt, U./Arold, H./Kieschke, U. (2002): Die Bewältigung psychischer Anforderungen durch Lehrkräfte. In: Scheunpflug, A. (Hrsg.): Schulleiterhandbuch. 2002. Bd. 93. pp. 62 – 73.
- ⁵⁵ Holtappels, H. G.: Ganztageserziehung als Gestaltungsrahmen der Schulkultur. Modelle und Perspektiven für ein zeitgemäßes Schulkonzept. In: Holtappels, H. G. (ed.): Ganztageserziehung in der Schule. Modelle, Forschungsbefunde und Perspektiven. Opladen. 1995. pp. 12 – 48.

- ⁵⁶ Bellenberg, G./Böttcher, W./Klemm, K.: Die Stärkung der Einzelschule. Neues Management der Ressourcen Geld, Zeit und Personal. Neuwied.2001; Böttcher, W.: Kann eine ökonomische Schule auch eine pädagogische sein? Schulentwicklung zwischen Neuer Steuerung, Organisation, Leistungsevaluation und Bildung. Weinheim und München. 2002.
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- ⁷¹ Cf. citations in End note 51.
- ⁷² Cf. also Döbrich, P./Schweizer, K.: Stress und zeitliche Beanspruchung. In: Schulverwaltung, Ausgabe Hessen, Rheinland-Pfalz, Saarland". 2003 (in print).
- ⁷³ Berliner DFG-Forschergruppe "Bildung und Schule im Transformationsprozess von SBZ, DDR und neuen Ländern – Untersuchungen zu Kontinuität und Wandel." (1994-1999).
- ⁷⁴ Cf.: Gehrman, A.: Der professionelle Lehrer....., loc.cit. (End note 63).

- ⁷⁵ Titze, H.: Historische Erfahrungen mit der Steuerung des Lehrbedarfs. Ein Beitrag aus der Sicht der historischen Bildungsforschung. In: Sommer, M. (Hrsg.): *Lehrer Arbeitslosigkeit und Lehrerbildung. Diagnosen und Strategien zur Überwindung der Krise*. Opladen. 1986. pp. 18 – 41; Titze, H.: *Der Akademikerzyklus. Historische Untersuchungen über die Wiederkehr von Überfüllung und Mangel in akademischen Karrieren*. Göttingen. 1990.
- ⁷⁶ Terhart, E.: *Lehrerberuf und Lehrerbildung. Forschungsbefunde, Problemanalysen, Reformkonzepte*. Weinheim und Basel. 2001. p. 8.
- ⁷⁷ Cf. on this and the following data: Kultusministerkonferenz: *Fächerspezifische Prognose der Hochschulabsolventen*. Statistische Veröffentlichungen. Dokumentation Nr. 168 - Juni 2003.
- ⁷⁸ Kultusministerkonferenz: *Einstellung von Lehrkräften 2002*. Statistische Veröffentlichungen. Dokumentation Nr. 166 – Februar 2003.
- ⁷⁹ Cf. KMK: *Einstellung von Lehrkräften*, loc.cit. (End note 77).
- ⁸⁰ Calculations of the authors: *Statistisches Bundesamt: Bildung und Kultur – Allgemeinbildende Schulen bzw. Berufsbildende Schulen*. Wiesbaden. 2002.
- ⁸¹ OECD – Organisation for Economic Co-Operation and Development: *Education Policy Analysis 2002*. Paris. 2002. p. 67.
- ⁸² Cf. Klemm, K.: *Der Teilarbeitsmarkt Schule in Deutschland bis zum Schuljahr 2015/2016*. Manuskript. Essen. August 2001.
- ⁸³ Cf. in particular Bellenberg, G./Thierak, A.: *Ausbildung von Lehrern und Lehrerinnen in Deutschland*. Opladen. 2003 (to be published).
- ⁸⁴ Klieme, E./Rakoczy, K.: *Unterrichtsqualität*, loc.cit. (End note 19), p.347
- ⁸⁵ Wissenschaftsrat: *Entwicklung der Fachstudiendauer an Universitäten von 1990 bis 1998*. Köln 2001
- ⁸⁶ Cf. Anweiler, O. et.al. (eds.): *Vergleich von Bildung und Erziehung in der Bundesrepublik Deutschland und in der Deutschen Demokratischen Republik*. Köln. 1990. p. 526 and following pages.
- ⁸⁷ An agreement about the recognition of teacher training qualifications awarded by the German Democratic Republic and their classification among the teaching careers existing in the West German Länder was only reached by the Conference of Education Ministers in 1993 after very complicated negotiations. On questions of recognition cf. Avenarius, H./Döbert, H./Döbrich, P./Schade, A.: *Mobilitätschancen für Lehrer in Deutschland und Europa. Wie verfahren die Länder der Bundesrepublik Deutschland bei der Anerkennung von Lehramtsprüfungen, die in anderen Bundesländern und in anderen Mitgliedsstaaten der Europäischen Union abgelegt wurden?* Baden-Baden. 1996.
- ⁸⁸ Bos et al.: loc.cit. (End note 9). p. 45 and following pages.
- ⁸⁹ Bos et al. : loc.cit.. (End note 9). pp. 179, 221
- ⁹⁰ Kant, I.: *Der Streit der Fakultäten*. In: *Schriften zur Anthropologie, Geschichtsphilosophie, Politik und Pädagogik 1.Werkausgabe Band XI*. Herausgegeben von Wilhelm Weischedel.
- ⁹¹ For a survey of experts' reports and reform activities in the Länder cf. Bellenberg, G./ Tierack, A.: *Die LehrerInnen Ausbildung in Deutschland. Bestandsaufnahme und Reformbestrebungen*. Projekt B 8330 im Auftrag des Bundesministeriums für Bildung und Forschung, Essen. 2001. To be published in 2003 by Leske und Budrich, Opladen.
- ⁹² Terhart, E. (ed.): *Perspektiven der Lehrerbildung in Deutschland*. Abschlussbericht der von der Kultusministerkonferenz eingesetzten Kommission. Weinheim und Basel. 2001.
- ⁹³ Zuletzt: Wissenschaftsrat: *Empfehlungen zur künftigen Struktur der Lehrerbildung*. Köln. 2001.
- ⁹⁴ As a starting point for such plans we recommend the concepts by Oser (Oser, F.: *Standards der Lehrerbildung*. In: Oser, F./Oelkers, J.(eds.): *Die Wirksamkeit der Lehrerbildung in der Schweiz*. Chur/Zürich. 2000).
- ⁹⁵ Terhart, E.: *Standards für die Lehrerbildung. Eine Expertise für die Kultusministerkonferenz*. Manuskript. Münster 2002.
- ⁹⁶ This position is advocated in particular by the „mixed commission“ set up by the Conference of Education Ministers. Cf. Terhart, E. (ed.): *Perspektiven*, loc.cit.(End note 90).
- ⁹⁷ Keuffer, J./Oelkers, J.: *Reform der Lehrerbildung in Hamburg*, loc.cit. (End note 2), p. 173 and following pages.
- ⁹⁸ This is, in particular, the view of the Wissenschaftsrat, cf. Wissenschaftsrat: *Empfehlungen*, loc.cit. (End note 91).
- ⁹⁹ Saterdag, H.: *Für Professionalität und Praxisbezug der Lehrerbildung. Das Duale Studien- und Ausbildungskonzept des Landes Rheinland-Pfalz*. In: Merckens, H.-H. (ed.): *Lehrerbildung in der Diskussion*. Opladen. 2003. pp. 57 – 74.
- ¹⁰⁰ Sommer, M.: *Strategien zur kurzfristigen Entlastung und langfristigen Stabilisierung des Lehrerberufmarktes*. In: Sommer, M. (ed.): *Lehrer Arbeitslosigkeit und Lehrerbildung. Diagnosen und Strategien zur Überwindung der Krise*. Opladen. 1986. pp. 260–302; Falk, R.: *Berufsmöglichkeiten für Lehrer in der Wirtschaft. Der Modell-*

versuch des Instituts der deutschen Wirtschaft. In: Sommer, M. (ed.): Lehrerarbeitslosigkeit und Lehrerausbildung etc., pp. 196–214.

¹⁰¹ Terhart, E.: Lehrerberuf und Lehrerbildung. Forschungsbefunde, Problemanalysen, Reformkonzepte. Beltz Verlag. Weinheim und Basel. 2001, p. 207. Cf. also the report commissioned by the Conference of Education Ministers "Perspektiven der Lehrerbildung in Deutschland", End note 90 (p. 73)

¹⁰² On this concept cf. Mayntz, R.: Soziologie der öffentlichen Verwaltung. 4., durchgesehene Auflage. Heidelberg. 1997. p. 159 and following pages.

¹⁰³ Van Lakerveld, J.: Trends der Lehrerfortbildung in Europa. In: Forum Lehrerfortbildung 1995, Heft 28, pp. 68 – 77. On the situation of in-service teacher training in Germany cf. also Daschner, P.: Einrichtungen der Lehrerfortbildung. In: Blömeke, S. u.a. (eds.): Handbuch Lehrerbildung (to be published in 2003).

¹⁰⁴ Peters, A.: Aktion und Reflexion. Lehrerfortbildung aus international vergleichender Perspektive. Weinheim 1996; Arbeitsgruppe "Internationale Vergleichsstudie" des DIPF in Frankfurt: Vertiefender Vergleich der Schulsysteme ausgewählter PISA-Teilnehmerstaaten. Manuskript. Frankfurt. 2003. This is also confirmed by a first interpretation of the international primary education studies IGLU and PIRLS. According to these studies 41 % of the pupils had teachers who said that they had not participated in further training on teaching reading for the last two years. In mathematics even 40 % and in primary school social and natural sciences even 57 % of the teachers said to have not taken part in further training in the last two years. At the same time teachers expressed great interest in further training (Lankes, E.-M./Bos, W./Mohr, I./Platzmeier, N./Schwippert, K.: Lehr- und Lernbedingungen in den Teilnehmerländern. In: Bos, W. et al.: Erste Ergebnisse aus IGLU..... loc.cit. (End note 9). p. 46.

¹⁰⁵ Oelkers, J.: Schulen in erweiterter Verantwortung – Eine Positionsbestimmung aus erziehungswissenschaftlicher Sicht. In: Avenarius, H. / Baumert, J. / Döbert, H. / Füssel, H.-P. (eds.): Schule in erweiterter Verantwortung. Positionsbestimmungen aus erziehungswissenschaftlicher, bildungspolitischer und verfassungsrechtlicher Sicht. Neuwied 1998, pp. 37 – 49. Terhart, E.: Die autonomer werdende Schule und ihr Personal. Einige kritische Rückfragen. In: Avenarius, H. / Baumert, J. / Döbert, H. / Füssel, H.-P. (eds.): Schule in erweiterter Verantwortung, loc.cit., pp. 233 – 145.

¹⁰⁶ Priebe, B.: Situation und Perspektiven der Lehrerfortbildung. In: Terhart, E. (ed.): Perspektiven loc.cit. (End note 90). Materialband. pp. 23–35.