

Who chooses primary teaching and why?

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This study investigates who chooses primary teaching and how prospective primary school teachers differ from future teachers in other types of schools. Using variance analysis, future student-teachers of different types of schools are compared with regard to their motives for the choice of studies and profession. As a main result, prospective primary school teachers display a particular pedagogical motivational structure, idealism, and the wish for compatibility between family and professional life. In regard to their self-image, students of primary education have lower expectations of self-efficacy, but a higher awareness of responsibility. Conclusions as well as practical implications can be drawn for both the professionalisation of the teaching profession and teacher training, for example concerning the stabilisation or destabilisation of decisions on the choice of profession, realistic ideas about the professional field, and the strengthening of self-reflection.

Introduction

In Germany, the teaching profession is an attractive professional goal. Around 10% of all prospective students decide to study teacher training each year and the number of teacher-trainees is growing. This trend has been continuous for years, even though teachers, in Germany as well as in other countries, repeatedly and intensively complain about the experience of high job demands, immense stress, and change in the task profile of the school. It is claimed that the psychological pressure on the teachers has increased. In various studies, teachers agree in identifying the following major stress factors: interaction problems with pupils, parents and colleagues, the excessive demands of the curriculum, and the worsening of the institutional framework conditions (Johnson & Birkeland, 2003; Kittel & Leynen, 2003). Furthermore, subordinate status, low prestige, and a lack of public respect are reported. In this case, however, distinctions must be made in Germany, as teachers in primary schools enjoy higher social esteem than those in secondary schools (Institut für Demoskopie Allensbach, 2008).

Nonetheless, teaching remains the preferred profession for many students. Research on the motives underlying the choice of the course of studies and the profession by future teachers in German-speaking countries can look back on a 50-year-long tradition. The state of research is relatively broadly based. The existing international research is also very explicit: Whilst a substantial amount of research has investigated commitment to teaching and what initially motivates people to become teachers, much of it was undertaken more than a decade ago and most is situated within the North American context (see Sinclair, 2008). Depending on the research in question, various motivational structures can be found, some of which are documented several times. Consideration of this point is of great importance, as prospective teachers more or less definitively determine their professional career with the choice of their course of studies, not only concerning the teaching profession in general, but also the type of school, for example the profession of a

primary school or a secondary school teacher. The range of professional choices after the completion of these courses of studies must still be seen as narrow.

The decision about the course of studies and the profession of primary school teaching stands at the center of the present study. On the one hand, we take up the question of the motivational structures involved in the decisions taken by students wishing to teach at primary schools. On the other hand, we examine whether this motivation differs from the motivation of students choosing secondary school education. A brief introduction to the profession of primary teaching in the German educational system is followed by a consideration of the present state of research. Then the results of our own research project on *Wirksamkeit der Lehrerbildung* (*efficacy of teacher training*) involving a large-scale longitudinal study carried out at two German universities is presented and discussed.

The study and the profession of primary teaching

The early progress of children is seen as an important measure for their later success at school and the sectors of both early childhood and primary advancement have been expanding continuously for years. In Germany, the corresponding course of studies is integrated into the university structure. Thus, it is the first part of a theoretically based training program in which school-relevant specialist contents such as how to teach reading, writing, and maths are taught. The students are initiated in methods of learning and teaching research. However, quotations from primary teachers such as the following clearly reveal the ambivalent views on primary school teaching: “At the beginning I always thought: ‘You’re less of a teacher in this school. You’re more somebody who plays with the children and sees the individual child, who places great value on the educational and life situation of the children’. And then I thought I must now develop more in the direction of becoming a teacher, because I have to teach the children reading, writing and maths” (Weitzel, 2005, p. 21). In spite of being embedded in an academic context, the study and the profession of primary school teaching are often depreciated from a professional perspective. There is talk of reduced standards in university education, the lack of the necessary theoretical training and the low value placed on the knowledge of subjects and methods. The limited recognition of the primary teaching qualification is also shown by the fact that it is not recognised as a requirement for a doctoral degree.

Apart from the criticism of the diminished standards of university training, the external perception of the profession as a primarily pedagogical activity results in many lay people feeling that they are competent for the occupation. The purely pedagogical and educational activity is placed in the foreground. In part, the interpretation of the primary teaching profession goes even further. Combe (1996) describes a transfiguration of the profession as an “extended or professionalised motherliness” (p. 508), so that the professional requirements remain hidden from view. This image of deficient academic and scientific dignity is being increasingly confronted with demands for the professionalisation of the teaching profession (Baumert et al., 2010). However, in this connection reference must be made to the Progress in International Reading Literacy Study (PIRLS), according to which German primary school children occupy a top place in international comparisons of reading ability (see Mullis, Martin, Kennedy, & Foy, 2007).

The motivation of prospective teachers in their choice of profession

Aspects of the decision on the profession

The choice of a profession is a complex decision process that is influenced by a variety of factors. The most important are given in Figure 1, following the research outcomes of Schutz, Crowder and White (2001).

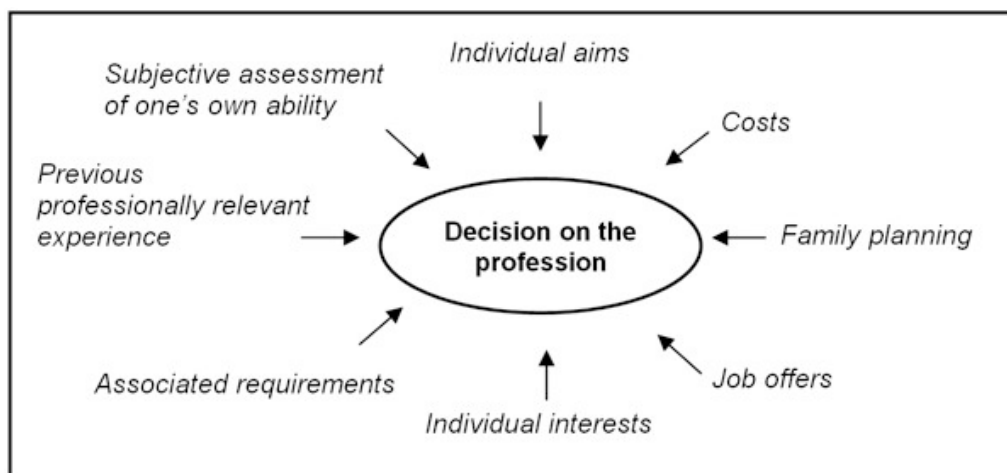


Figure 1: Factors influencing the choice of profession

As the diagram clearly shows, the individual aims and interests, the subjective assessment of personal ability, professionally relevant previous experience, associated requirements, costs, and job offers are, among others, relevant. From the standpoint of theories on making vocational choices (e.g. Holland, 1985), the decision in favor of a profession can be described as the result of evaluation processes on the basis of the best possible fit between personal qualities and the anticipated requirements of the profession and training for it. This should also be the case for the teaching profession. In the teaching profession, there is not one single motivational structure regarding the optimal fit between qualities and the requirements described above. The decision for a particular school type must also be taken into account. This point will be considered in more detail in what follows, with special reference to teacher training for primary schools.

The motives for the choice of studies and profession in teacher training

The results of German studies about the choice of studies and profession in teacher training are consistent with the international state of research. Very often motives have been grouped into different categories, for example a five-category distinction, with factors such as personal status, social status, and time for the family (e.g. Richardson & Watt, 2005; Watt & Richardson, 2007, 2008) or a two-group category with material versus

professional reasons (e.g. Huberman, Grounauer, & Marti, 1993). It is very common to group teachers' motives for entering teaching into three broad reasons: altruistic, extrinsic, and intrinsic motives (e.g. Bastick, 2000; Kyriacou, Kunc, Stephens, & Hultgren, 2003; Moran, Kilpatrick, Abbot, Dallat, & McClune, 2001; Rinke, 2008).

A polarisation of the motives existing for taking up teacher training can be most clearly described by two terms: pedagogical work with children and youths on the one hand and specialist knowledge and its mediation on the other – in accordance with the frequently quoted traditional distinction between the *paidotrop* (particularly interested in children) and the *logotrop* (particularly interested in subject matter) type of teacher, which can be traced back to Caselmann (1964). This frequently criticized but still popular differentiation is revealed both in the aspirations of different school types and in the structure of the occupational choices of prospective teachers. A solid foundation in subject matter is considered as most important precondition for teaching primarily in secondary schools, because they prepare pupils for university entrance qualifications and for a course of studies or a demanding profession. Accordingly, the consideration of the motives involved in the choice of studies and profession by students preparing for secondary technical and grammar school teaching reveals a strong orientation toward the specialised knowledge of the chosen subjects (Serow, Eaker, & Forrest, 1994; Sinclair, 2008; Stiegelbauer, 1992; Thierack, 2002).

A pedagogical or addressee-related motivational structure is more strongly present among students preparing for a career in primary or secondary schools (Liu, 2010; Sinclair, 2008; Su, 1993; Weiner, Swearingen, Pagano, & Obi, 1993; Weiss, Braune, Steinherr, & Kiel, 2009). The wish to establish a relationship with children, to participate in their upbringing, to act as a parent-substitute, reference person and playmate, and to give the children stability and security are significant here. Altruism and idealism are named, such as “to fulfil all students' needs” and “to support students' growth and development” (Liu, 2010). It seems to be important to have a positive impact on children's life, to satisfy feelings of responsibility toward children, and make a contribution to society (e.g. Goh & Atputhasamy, 2001). In this context, the impact of former teachers on the decision to become a teacher (Liu, 2010; Su, 1993) as well as the influence of others, such as family members, friends who have studied teaching, or school careers advisers (Manuel, 2003; Wilhelm, Dewhurst-Savellis, & Parker, 2000) is acknowledged.

It is precisely the limited academic and scientific aspirations that provide a motive justifying the choice of profession. The studies of Fock, Glumpler, Hochfeld, and Weber-Klaus (2001) show that although the majority of the teacher-trainees questioned do not at first even perceive this attitude, they express it indirectly, namely, by means of the self-assessment that “their personal interests are to be found in practical pedagogical activities rather than in the academic and scientific field” (p. 229). In this connection, Fock et al. point to the unbroken affinity between primary teaching students and their colleagues in the alternative profession of pre-school teaching.

In addition, further motives are thematised in various studies. Extrinsic motives continue to exist (e.g. Hobson et al., 2008; Richardson & Watt, 2006), although they have declined

in significance and taken a back seat particularly in the case of primary school teachers. On the other hand, the compatibility of family and profession continues to exert an influence – in Germany (e.g. Kiel, Geider, & Jünger, 2004; Schölling, 2005) as well as in other countries (e.g. Richardson & Watt, 2006). It is still not possible to speak of a gender-equitable division of labor. For example, women frequently work on a part-time basis. Compatibility with care of the family, by a reduction of the teaching load, is especially esteemed by women and is included from the start in their planning for the choice of a profession. The teaching profession in Germany enjoys the reputation of being a half-day job, which enables teachers to be at home in the afternoon in addition to guaranteeing long holidays. This applies especially to the primary school sector, which is associated with low preparation requirements for teaching (Fock et al, 2001). This study reveals a stable desire for family and children and the opportunity to integrate professional activities and the family.

The self-image of teacher trainees

The self-image of student-teachers is associated with the motivation for entering teaching. For example, enthusiasm for teaching and commitment to teaching are positively related to self-efficacy (Darling-Hammond, Chung, & Frelow, 2002; Rots, Aelterman, Vlerick, & Vermeulen, 2007; Tschannen-Moran & Woolfolk-Hoy, 2001). Extrinsic motives are negatively related to self-efficacy (Bruinsma & Jansen, 2010).

In Germany, the motivational structure specific to the different school-types can also be found in the self-image of prospective teachers. It differs strongly, ranging on the one hand from the clearly scientific orientation of prospective grammar school teachers, associated with an intellectual characteristic profile similar to that of M.A. and diploma students, and related among other things to indicators such as intelligence, knowledge, and the assessment of personal ability (Mayr, 2009; Treptow, 2006). On the other hand, there is an almost exclusive desire for very practically oriented contents without any scientific aspirations in the case of prospective primary school teachers. The subject-orientated demands of the course of studies chosen are included from the start in the planning of the choice of profession. They play a significant part, above all, concerning the secondary school types, as here high demands must be met in regard to the study of the subjects chosen. Students preparing for secondary technical and grammar schools also tend to believe that they have the necessary ability. They have a higher assessment of their own competence and their self-efficacy expectations are also higher (Mayr, 1994; Rustemeyer & Fischer, 2002; Ulich, 2000).

Concerning self-efficacy expectations, it has been repeatedly shown that students preparing for primary school teaching are less sure of their own ability, place less trust in it, and demonstrate a lower evaluation of their competence in comparison to future students of other school types. This finding can probably be linked to the fact that the primary school is still regarded as a kind of protected space, characterised by a relative absence of notions of competition and hierarchy, a lack of the need for assertiveness, and at the same time the existence of reduced opportunities for professional advancement.

Questions and hypotheses

As has been said, research into the motivation behind the choice of profession among prospective teachers has a long tradition in German-speaking countries. It is essential that the current state of research should be supplemented and brought up to date, as children and youths spend a large part of the sensitive developmental phases under the care of teachers. Therefore, it is necessary to continually thematise the question of who takes up the teaching profession. Furthermore, the acquisition of data on the central motives gives insights into what teachers regard as important for the exercise of their profession. This can lead to a change in the existing structures for teacher training at universities, which is also the aim of the research project within which the present study is being carried out.

On the basis of the existing findings (e.g. Bastick, 2000; Kyriacou et al., 2003; Rinke, 2008; Watt & Richardson, 2007, 2008) outlined above, the following hypotheses on the motivational structure for the choice of studies and profession by prospective primary school teachers have been developed by the authors of this article.

- Students preparing to teach in primary school are above all pedagogically motivated: their motivational structure is directed toward work with children; motives involving the fostering of the pupils are more pronounced than in the case of prospective teachers of other school types.
- In contrast, motives involving subject matter play a subordinate role.
- The integration of family and profession influences the choice of profession more than is the case with students of other school types.
- The low requirements associated with the chosen field of study tend to be less important in comparison with other teacher training study courses.

In regard to the self-image of students preparing for primary school teaching, the hypotheses below are investigated. Reference is thereby made to the specific requirements profile of the primary school. The primary school teaches the youngest children, who are in the process of transition from kindergarten to a school. Furthermore, the primary school has already been thematised as a place of work with low levels of hierarchical and competitive thinking.

- Prospective primary school teachers show lower self-efficacy expectations than future teachers of other school types, particularly in comparison with those who will be teaching at grammar schools.
- In regard to social competence a higher score of the awareness of responsibility is expected.
- Besides a greater significance of situationally appropriate behaviour is assumed.

Accounts of the motivational structure of future female primary school teachers lead to the following hypotheses.

- Female students are more strongly motivated pedagogically than male students.
- In addition, the motive of compatibility with family life is of greater significance.

Methods

The present study is part of the research project *Wirksamkeit der Lehrerbildung – Kompetenzentwicklung und Biografiemanagement in der dreiphasigen Lehrerbildung* (*Efficacy of Teacher Training – the development of competence and the management of biography in the three-phase teacher training course*), which is being carried out by the Chair of School Education of the Ludwig-Maximilians University Munich in cooperation with the Chair of General Education of the University in Passau. The aim of the project is the acquisition of data bases for a longitudinal study of the motives underlying the choice of courses of study and professions, study expectations, concepts of professional action, competence, and self-concept among teacher training students. On this basis, instruments for testing and, if need be, for recommending corrections to decisions on the choice of profession will be developed together with counselling and coaching instruments.

Sample

The total sample consists of 1,249 students who are divided up as follows among the different school types:

- 288 students preparing for primary school teaching
- 156 students preparing for secondary modern school teaching
- 312 students preparing for secondary technical school teaching
- 493 students preparing for grammar school teaching.

At the time of the survey, the majority of the students were in their first and second semesters (71.2%). The overall average age was 21.9 years (SD = 3.25). Of the 1,249 students, 940 are female. This corresponds to a proportion of 75%. If the prospective primary school teachers are taken separately, the proportion of women is much higher (93%). Only 20 (7%) of the students are male.

Instruments of measurement and procedure

For the collection of the data, teacher trainees were presented with a questionnaire during a lecture, which was to be filled out immediately. To collect the data on the motives underlying the choice of studies and professions, an instrument was designed which, as a first step, drew upon already existing studies (e.g. Kiel et al., 2004; Ulich, 1998). On the basis of their findings, items were created on the motives. In a second step, missing aspects were generated by interviewing experts: educationalists and people active in teacher training supplemented the existing list of motives from the studies mentioned above, with further items that they regarded as important for the acquisition of data on the motives behind the choice of courses of study and profession among teacher trainees. The items (four-stage ratings ranging from “1 – does not apply at all” to “4 – applies totally”) were reduced on the basis of factor analysis (principal component analysis with Varimax rotation and Kaiser criterion, reliability analysis) to the corresponding scales, which are presented in Table 1 with one example item each and Cronbach’s alpha.

Table 1: The scales for motivation underlying choice of studies and profession

Scale	Number of items	Example item I have decided to study teacher training ...	Cronbach's alpha
Pedagogical work with children and youths	12 items	• because I enjoy being together with children/youths	.87
Idealism	8 items	• in order to form people	.82
To foster pupils with special preconditions	3 items	• in order to foster children/young people with unfavourable educational preconditions	.77
Interest in subject matter	8 items	• because I am very interested in one or several subjects	.79
Planning options	5 items	• in order to have a many-sided profession later	.78
Low requirements associated with the course of study	2 items	• because I assume that the course of study will not be all too difficult	.73
Teaching as an emergency solution	4 items	• because I had no chance of fulfilling my original wish for my profession	.81
Occupational/financial security	3 items	• in order to have a secure job as a teacher later	.81
Compatibility with family	3 items	• in order to be able to combine family and profession well later	.61

The self-image of prospective teachers is acquired with the aid of the following characteristics and measurement instruments.

- General self-efficacy expectation (Schwarzer & Jerusalem, 1999) with 10 items ($\alpha = .83$), which were determined in studies with (future) teachers.
- Self-assessment of social competence (Bodensohn, 2002) with the scales 'ability to lead' (7 items, $\alpha = .74$), 'independence' (5 items, $\alpha = .70$), 'ability to cooperate' (7 items, $\alpha = .70$), 'situationally appropriate behaviour' (4 items, $\alpha = .69$), 'awareness of responsibility' (10 items, $\alpha = .82$) and 'ability to communicate' (10 items, $\alpha = .76$).

Results

On the motives for the choice of studies and profession by prospective teachers

The comparison was carried out by means of variance analysis. The type of school – subdivided into primary, secondary modern and secondary technical, and grammar school – is taken as a factor. By means of this comparison, the significant motives of prospective primary school teachers can be compared to the motives of prospective students of other school types.

Table 2: Variance analytical comparison of motives for the choice of profession

Motives		M (SD)	F (df)
Pedagogical work with children and youths	Primary	3.52 (.33)	28.1 ** (3, 1245)
	Secondary modern	3.41 (.43)	
	Secondary technical	3.30 (.41)	
	Grammar	3.24 (.48)	
Idealism	Primary	3.11 (.45)	7.5 ** (3, 1245)
	Secondary modern	3.06 (.48)	
	Secondary technical	2.96 (.52)	
	Grammar	2.96 (.52)	
Fostering of pupils with special preconditions	Primary	3.27 (.54)	26.1 ** (3, 1245)
	Secondary modern	3.25 (.53)	
	Secondary technical	3.07 (.60)	
	Grammar	2.91 (.68)	
Interest in subject matter	Primary	2.81 (.41)	49.2 ** (3, 1245)
	Secondary modern	2.81 (.41)	
	Secondary technical	3.00 (.40)	
	Grammar	3.14 (.44)	
Planning options	Primary	3.27 (.46)	7.7 ** (3, 1245)
	Secondary modern	3.25 (.49)	
	Secondary technical	3.07 (.52)	
	Grammar	2.91 (.54)	
Low requirements associated with course of study	Primary	1.65 (.65)	34.5 ** (3, 1245)
	Secondary modern	1.68 (.66)	
	Secondary technical	1.66 (.64)	
	Grammar	1.32 (.45)	
Teaching as an emergency solution	Primary	1.42 (.54)	6.9 ** (3, 1245)
	Secondary modern	1.52 (.57)	
	Secondary technical	1.62 (.64)	
	Grammar	1.50 (.45)	
Occupational/ financial security	Primary	2.72 (.56)	6.4 ** (3, 1245)
	Secondary modern	2.84 (.63)	
	Secondary technical	2.93 (.61)	
	Grammar	2.83 (.62)	
Compatibility with family	Primary	2.83 (.61)	6.3 ** (3, 1245)
	Secondary modern	2.66 (.69)	
	Secondary technical	2.84 (.69)	
	Grammar	2.67 (.70)	

** = $p < .01$

For all the scales, the variance analytical calculations show significant results. Central differences are revealed with the focus on prospective primary school teachers, above all in comparison to students preparing for teaching in secondary technical and grammar schools, as is described in what follows.

For students training for primary school teaching, clear differences about addressee-related motives can be determined. The pedagogical motivation thematised above is high. Post-hoc tests following Scheffé's procedure reveal significant differences in comparison to the secondary technical and grammar schools ($p < .01$). The motive idealism is also particularly strongly pronounced among students training for primary school teaching. This is significant in the post-hoc comparison of both the secondary technical and the grammar schools ($p < .01$). It is also true of the motive fostering of pupils, for example in the case of educational disadvantage or family deficits. Here, too, significant differences between prospective primary school teachers and prospective secondary technical and grammar school teachers are clearly evident ($p < .01$).

The interest in subject matter of prospective primary school teachers was found to be of subordinate significance. It is particularly slight in the comparison with future secondary technical and grammar school teachers, being significant at the level of $p < .01$ in the Scheffé test. In addition, students were specifically asked whether the motive low requirements associated with the course of study had played a part in the choice of the profession. Trainees for primary school teaching attribute a similar importance to this motive as the trainees for secondary modern and secondary technical school teaching. Only the difference for students preparing for grammar school teaching is significant ($p < .01$). The prospective primary school teachers reject the choice of their profession as an emergency solution in comparison to the prospective teachers in secondary modern and secondary technical schools ($p < .01$).

If one takes the framework conditions of the teaching profession into account, the following findings can be ascertained. The motive that the profession offers many planning options proves to be important. The results for primary school teaching are significant in comparison to those for secondary technical and grammar school teaching ($p < .01$). The motive of financial and professional security, on the one hand, is less important for future primary school teachers than for prospective teachers of the other school types (in each case $p < .01$). On the other hand, compatibility with the family, the possibility of integrating professional and family life, has a decisive role. In this case, the comparison with secondary technical and grammar schools is significant (in each case $p < .01$).

If one considers prospective primary school teachers in regard to gender specific differences, only one significant gender effect can be identified. Male students preparing for primary school teaching give low requirements associated with the course of study as a motive for their choice of profession to a greater degree than women ($M_m = 2.05$, $SD = .79$ vs $M_w = 1.62$, $SD = .64$; $F(df) = 8.11 (1, 284)$, $p < .01$). Neither the pedagogical motivation nor the wish to combine family and profession are gender specific. It must, however, be noted that the sample was comprised of only 20 future primary school teachers who were male.

Results on the self-image of prospective primary school teachers

In a second step, the consideration of the motivation involved in choice of studies and profession will be rounded off by an examination of the role of the self-image of teacher trainees. For self-efficacy expectations, a comparison of students of the different school types produces the following results: The variance analytical comparison shows a significant finding ($F(df) = 3.20(3, 1146)$; $p < .05$). In post-hoc tests (Scheffé), it can be ascertained that prospective primary school teachers assess their self-efficacy expectation lower than those who will subsequently teach at grammar schools ($MGS = 28.49$, $SD = 3.64$ vs $MGY = 29.31$, $SD = 3.83$; $p < .05$).

The results of the variance analytical comparison of social competence are given in Table 3.

Table 3: Variance analytical comparison of social competence

Social competence		M (SD)	F (df)
Ability to lead	Primary	4.62 (.50)	1.59 (3, 1233)
	Secondary modern	4.58 (.52)	
	Secondary technical	4.49 (.54)	
	Grammar	4.48 (.57)	
Independence	Primary	4.90 (.54)	6.07 ** (3, 1231)
	Secondary modern	4.86 (.59)	
	Secondary technical	4.87 (.62)	
	Grammar	5.02 (.59)	
Ability to cooperate	Primary	4.66 (.47)	.98 (3, 1233)
	Secondary modern	4.70 (.57)	
	Secondary technical	4.63 (.56)	
	Grammar	4.62 (.58)	
Situationally appropriate behaviour	Primary	5.01 (.53)	1.37 (3, 1232)
	Secondary modern	4.94 (.64)	
	Secondary technical	4.94 (.61)	
	Grammar	4.92 (.67)	
Awareness of responsibility	Primary	4.98 (.46)	3.20 * (3, 1233)
	Secondary modern	4.92 (.54)	
	Secondary technical	4.88 (.88)	
	Grammar	4.87 (.87)	
Ability to communicate	Primary	4.77 (.45)	1.05 (3, 1233)
	Secondary modern	4.76 (.53)	
	Secondary technical	4.71 (.49)	
	Grammar	4.77 (.51)	

* = $p < .05$; ** = $p < .01$

Independence and awareness of responsibility have effects on social competence. These can be described in more detail with the help of post-hoc tests. In the case of independence, there is a difference between prospective primary school teachers and future grammar school teachers in favour of those preparing for secondary schooling ($p <$

.05). The latter assess their ability, for example to plan and organize their teaching independently, more highly. For awareness of responsibility, the opposite effect can be observed. This factor is more pronounced in the case of prospective primary school teachers ($p < .05$). Unexpectedly, no effects can be ascertained for situationally appropriate behaviour.

When we take gender into account for the prospective primary school teachers, a difference between male and female students can be ascertained for self-efficacy expectations ($M_w = 28.36$, $SD = 3.63$, $M_m = 30.40$, $SD = 3.05$; $F(df) = 6.27(1, 283)$, $p < .05$). Future male primary school teachers evaluate this difference as higher. In addition, the ability to cooperate reveals a significant effect on social competence in favour of women teachers ($M_w = 4.68$, $SD = .46$, $M_m = 4.41$, $SD = .55$; $F(df) = 5.99(1, 283)$, $p < .05$).

Discussion

Against the background of these findings and in comparison to the present state of research, the following picture of the prospective primary school teacher emerges.

- The desire for contact with and closeness to children seems to be unbroken. The enthusiasm about accompanying pupils in their development and educational progress remains the predominant motive. This is consistent with many existing studies, for example Liu (2010), Sinclair (2008), Su (1993), Weiner et al. (1993), Weiß et al. (2009).
- The subordinate significance of subject matter in the eyes of prospective primary school teachers cannot be denied, nor can the wish for a practically and pedagogically-orientated course of studies. This finding calls for critical examination (Fock et al., 2001).
- The compatibility of professional and family life plays a part in the choice of profession from the start. This desire of prospective teachers is in accordance with familiar findings, e.g. Richardson and Watt (2006) and Schölling (2005).
- Taking into account the studies on the motives for the choice of the course of studies and the profession as a whole, it can be ascertained that precisely these motives have remained almost unchanged over the last 15 years.
- Female and male students differ only slightly in their motivational structure – a lower scoring on intrinsic motives of male primary teachers (see Bruinsma & Jansen, 2010) cannot be found. Men mention the simple path to the profession as a motive more often. Possibly, the stereotype that men tend to think more in economic terms plays a role here.
- As documented in part, low self-efficacy expectations can be ascertained in comparison to students preparing for grammar school teaching. This finding is consistent with some existing studies (e.g. Mayr, 1994; Ulich, 2000). Nevertheless, it contradicts the public perception that teachers in primary schools enjoy higher social esteem (Institut für Demoskopie Allensbach, 2008).

- It must be noted, however, that the decision about the profession and hence for teaching and educating children in the primary sphere is consciously taken. The students clearly reject the idea of primary school teaching as an emergency solution and extrinsic motives are of subordinate importance. The profession is their dream job.

Conclusions

As a result of these findings, some developmental tasks as well as practical implications for the profession and for teacher training can be derived.

Professional developmental tasks

The first developmental task concerns a change in the professional self of primary school teacher trainees (see van den Berg, 2002). The profile of the primary school teacher that emerges (not only) in the present study reveals a low level of interest in subject matter and a greater distance from the scientific aspect of the profession, which is not so easily reconcilable with current trends in professionalisation theory (Baumert et al., 2010). It seems desirable that (prospective) primary school teachers should develop a professional self that is not only related to the needs of their young students and a pragmatic imparting of knowledge, but also to science. This development should start at the beginning of their studies, rather than in the course of their careers. This would include the consideration of aspects related to subject matter and method and the willingness to reflect on existing personality patterns.

A further developmental task is related to the predominant motivation: The wish to be close to children as a motive overriding all others also calls for critical examination. “Idealists” who entered teaching because of strong altruistic or ethic service were more likely to leave teaching, ultimately frustrated by an environment that offered little guidance on the goals, means, and evaluation of their work (Miech & Elder, 1996). In his studies on teachers’ health, Schaarschmidt (2005) sees the distance from pupils as a dimension that can cause stress and in the long-term become a health risk factor. Similarly, many of the stress factors that have been frequently documented (e.g. Darling-Hammond et al., 2002) rest upon aspects of interpersonal interactions, especially the student-teacher relationship. Current findings indicate that unrealistic idealistic demands on the profession are responsible for the incongruence between person and professional role (see Schmitz & Leidl, 1999). Although a connection between idealism and burnout cannot be demonstrated mono-causally (see Lipowsky, 2003), an idealistic motivation can be a risk factor in the teaching profession (Sieland, 2004). Predictions on subjective and objective success as a teacher in later professional life cannot be derived from this. Nonetheless, the findings of stress research should not be ignored.

Implications for university education

These developmental tasks should be supported by the universities educating primary teachers. One important implication is “to attract students with the ‘right’ motives:

Students with these motives engage deeply in their pre-service preparation and their subsequent professional lives” (Sinclair, Dowson, & McInerney, 2006, p. 1138). Therefore, at the beginning of primary teacher education, students should be provided with the opportunity to identify excessively idealistic patterns of motivation. On the one hand, this can be done by an abstract paper-and-pencil test, or with the help of an online tool. On the other hand, one can rely on environments of situated cognition (see Collins, Brown, & Newman, 1989). In those environments, students are confronted with realistic scenarios where they have to decide on how to create learning situations or how to solve discipline problems. They receive feedback on the feasibility of their actions and they are asked to explain the underlying set of values, beliefs, or assumptions guiding their action and again receive further feedback in terms of developmental tasks.

As another concrete measure, teacher training (especially student advisory) must not exclusively serve the stabilisation of (occupational) choices, but it must also contribute to destabilisation. Reflection that involves becoming aware of both a right and a wrong occupational choice must be initiated. Thereby, the motivation must be focused: The wish to educate and accompany children on their educational path, which future primary teachers place in the foreground of their interests, cannot be fulfilled without underlying theoretical training. The theoretical requirements of teacher training must not only be preserved, but also strengthened, as the pedagogical aspirations of the prospective teachers cannot be taken into account without considering school-related subject content and the knowledge of methods and learning-teaching research. Lack of interest in science cannot be tolerated in favor of a purely pedagogical qualification.

In general, many strategies are required for student-teachers to achieve a realistic job preview within their primary teacher education. As early as possible in their training, teachers should be given the opportunity to acquire realistic experience of the entire field of activity in order to test their own motivation – as depicted in Sinclair’s (2008) study. Being a teacher does not only mean to educate. In our opinion, the already mentioned strengthening of the self-reflective aspect could be achieved, on the one hand, at the university by emphasis on casuistic in seminars and examinations, or by the mediation of instruments with which future teachers could themselves examine their teaching (Shulman, 1986). On the other hand, practical school training plays an important role. German research findings show a positive influence of practical training before and during the study on the patterns of motivations (Jäger & Milbach, 1994). Practical training provides a basis for reflecting on the fit between one’s own motivational structures and the requirements of the professional field. This should be accompanied by a strengthening of didactic expertise in order to provide security in the planning and implementation of lessons.

An important contribution in this context could also be made by the development of counseling opportunities during studies, not only to support the students in their choice of profession, but also to confront them with the job-related realities of the studies and the profession they have chosen.

Prospects

Further research could start from this point. The present study is based exclusively on the data of the first stage of a large longitudinal study. Most of the students questioned are at the start of their studies and their professional careers as teachers. Changes in motivation cannot be registered with the existing research design. It can definitely be assumed that as a result of both the first teaching experience (in personal responsibility) and the progressive theoretical discussions on professional aspects, a further development of ideas and ways of dealing with these issues takes place and that, for example, wish and reality become better aligned. These changes could then be recorded in the following two stages of the survey on the later phases of teacher training.

References

- Bastick, T. (2000). Why teacher trainees choose the teaching profession: Comparing trainees in metropolitan and developing countries. *International Review of Education*, 46(3-4), 343-349. <http://dx.doi.org/10.1023/A:1004090415953>
- Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A., Klusmann, U., Krauss, S., Neubrand, M. & Tsai, Y.-M. (2010). Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress. *American Educational Research Journal*, 47(1), 133-180. <http://dx.doi.org/10.3102/0002831209345157>
- Bruinsma, M. & Jansen, E. P. W. A. (2010). Is the motivation to become a teacher related to pre-service teachers' intentions to remain in the profession? *European Journal of Teacher Education*, 33(2), 185-200. <http://dx.doi.org/10.1080/02619760903512927>
- Bodensohn, R. (2002). *Selbstbewertung der Kompetenzentwicklung*. Verfügbar unter: http://www.uni-landau.de/schulprakt-studien/selbst_0304.pdf
- Caselmann, C. (1964). *Wesensformen des Lehrers* (3. expanded ed.). Stuttgart: Klett.
- Collins, A., Brown, J. S. & Newman, S. E. (1989). Cognitive apprenticeship: Teaching the crafts of reading, writing, and mathematics. In L. B. Resnick (Ed.), *Knowing, learning, and instruction: Essays in honor of Robert Glaser* (pp. 453-494). Hillsdale, NJ: Lawrence Erlbaum.
- Combe, A. (1996). Pädagogische Professionalität, Hermeneutik und Lehrerbildung. In A. Combe & W. Helsper (Eds.), *Pädagogische Professionalität. Untersuchungen zum Typus pädagogischen Handelns* (pp. 501-520). Frankfurt a.M.: Suhrkamp.
- Darling-Hammond, L., Chung, R. & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education*, 53(4), 286-302. <http://www.sagepub.com/dvlastudy/articles/Darling-Hammond%20article.pdf>
- Fock, C., Glumpler, E., Hochfeld, I. & Weber-Klaus, S. (2001). Studienwahl: Lehramt Primarstufe. Berufs- und Studienwahlorientierung von Lehramtsstudierenden. In E. Glumpler & C. Fock (Eds.), *Frauen in pädagogischen Berufen. Band 2: Lehrerinnen* (pp. 212-240). Bad Heilbrunn: Klinkhardt.
- Goh, K. C. & Atputhasamy, L. (2001). Teacher education in Singapore: What motivates students to choose teaching as a career? Paper presented at the Australian Association for Research in Education Annual Conference, Fremantle, Western Australia. <http://publications.aare.edu.au/01pap/atp01460.htm>

- Hobson, A., Tracey, L., Kerr, K., Malderez, A., Pell, G., Simm, C. & Johnson, F. (2004). *Why people choose to become teachers and the factors influencing their choice of initial teacher training route: Early finding from the becoming a teacher (BaT) project*. University of Nottingham. [see instead <http://webarchive.nationalarchives.gov.uk/20130401151715/https://www.education.gov.uk/publications/eOrderingDownload/RR744.pdf>, or <http://www.leeds.ac.uk/educol/documents/00003790.htm>]
- Holland, J. L. (1985). *Making vocational choices*. Englewood Cliffs: Prentice Hall.
- Huberman, A. M., Grounauer, M. & Marti, J. (1993). *The lives of teachers*. New York: Teachers College Press.
- Institut für Demoskopie Allensbach (2008). *Die Allensbacher Berufsprestige Skala 2008*. [viewed 30 Jan 2011, not found 15 Oct 2013] http://www.ifd-allensbach.de/pdf/prd_0802.pdf
- Jäger, R. S. & Milbach, B. (1994). Studierende im Lehramt als Praktikanten – eine empirische Evaluation des Blockpraktikums. *Empirische Pädagogik*, 8(2), 199-234.
- Johnson, S. M. & Birkeland, S. E. (2002). Pursuing a “sense of success”: New teachers explain their career decisions. Project on the next generation of teachers. *American Educational Research Journal*, 40(3), 581-617. <http://dx.doi.org/10.3102/00028312040003581>
- Kiel, E., Geider, F. J. & Jünger, W. (2004). Motivation, Selbstkonzepte und Lehrberuf. Studienwahl und Berufsperspektiven bei Studierenden für das Lehramt an Grund-, Haupt- und Realschulen. *Die Deutsche Schule*, 96(2), 223-233.
- Kittel, F. & Leynen, F. (2003). A study of work stressors and wellness/health outcomes among Belgian teachers. *Psychology and Health*, 18(4), 501-510. <http://dx.doi.org/10.1080/0887044031000147229>
- Kyriacou, C., Kunc, R., Stephens, P. & Hultgren, A. (2003). Student teachers’ expectations of teaching as a career in England and Norway. *Educational Review*, 55(3), 255-263. <http://dx.doi.org/10.1080/0013191032000118910>
- Lipowsky, F. (2003). *Wege von der Hochschule in den Beruf. Eine empirische Studie zum beruflichen Erfolg von Lehramtsabsolventen in der Berufseinstiegsphase*. Bad Heilbrunn: Klinkhardt.
- Liu, P. (2010). Examining perspectives of entry-level teacher candidates: A comparative study. *Australian Journal of Teacher Education*, 35(5), 56-78. <http://ro.ecu.edu.au/ajte/vol35/iss5/5>
- Manuel, J. (2003). “Such are the ambitions of youth”: Exploring issues of retention and attrition of early career teachers in New South Wales. *Asia-Pacific Journal of Teacher Education*, 31(2), 139-151. <http://dx.doi.org/10.1080/13598660301611>
- Mayr, J. (1994). Junge LehrerInnen: Interessen, Kompetenzen und Befindlichkeit – und zwei Blicke zurück. In J. Mayr (Ed.), *Lehrer/in werden* (pp. 177-199). Innsbruck: Österreichischer Studienverlag.
- Mayr, J. (2009). Lehrerin werden in Österreich: Empirische Befunde zum Lehramtsstudium. *Erziehung und Unterricht*, 159(3), 14-33.
- Miech, R. S. & Elder, G. H. Jr. (1996). The service ethic and teaching. *Sociology of Education*, 69(3), 237-253. <http://www.jstor.org/stable/2112731>
- Moran, A., Kilpatrick, R., Abbot, L., Dallat, J. & McClune, B. (2001). Training to teach: Motivation factors and implications for recruitment. *Evaluation and Research in Education*, 15(1), 17-32. <http://dx.doi.org/10.1080/09500790108666980>

- Mullis, I. V. S., Martin, M. O., Kennedy, A. M. & Foy, P. (2007). *IEA's Progress in International Reading Literacy Study in primary schools in 40 countries*. Chestnut Hill/MA: TIMSS & PIRLS International Study Center, Boston College.
- Richardson, P. W. & Watt, H. M. G. (2005). 'I've decided to become a teacher': Influences on career change. *Teaching and Teacher Education*, 21(5), 475-489.
<http://www.sciencedirect.com/science/article/pii/S0742051X05000405> [also
http://users.monash.edu.au/~hwatt/articles/Richardson&Watt_TATE2005.pdf]
- Richardson, P. W. & Watt, H. M. G. (2006). Who chooses teaching and why? Profiling characteristics and motivations three Australian universities. *Asia-Pacific Journal of Teacher Education*, 34(1), 27-56. <http://dx.doi.org/10.1080/13598660500480290> [see also
http://users.monash.edu.au/~hwatt/articles/Richardson%26Watt_APJTE2006.pdf]
- Rinke, C. (2008). Understanding teachers' careers: Linking professional life to professional path. *Educational Research Reviews*, 3(1), 1-13.
<http://www.sciencedirect.com/science/article/pii/S1747938X07000243>
- Rots, I., Aelterman, A., Vlerick, P. & Vermeulen, K. (2007). Teacher education, graduates' teaching commitment and entrance into the teaching profession. *Teaching and Teacher Education*, 23(5), 543-556.
<http://www.sciencedirect.com/science/article/pii/S0742051X07000133>
- Rustemeyer, R. & Fischer, N. (1992). Laufbahnorientierung und Geschlecht im Lehrer/innenberuf. In B. Keller & A. Mischau (Eds.), *Frauen machen Karriere in Wissenschaft, Wirtschaft und Politik. Chancen nutzen – Barrieren überwinden* (pp. 81-96). Baden-Baden: Nomos.
- Schaarschmidt, U. (2005). *Halbtagsjobber? Psychische Gesundheit im Lehrberuf. Analyse eines veränderungsbedürftigen Zustandes*. Weinheim: Beltz.
- Schmitz, E. & Leidl, E. (1999). Brennt wirklich aus, wer entflammt war? Studie II: Eine LISREL-Analyse zur Burnout-Prozess bei Lehrern. *Psychologie in Unterricht und Erziehung*, 46, 302-310. <http://www.edgar-schmitz.de/download/brennt.pdf>
- Schölling, M. (2005). *Soziale Herkunft, Lebensstil und Studienfachwahl. Eine Typologie*. Frankfurt a. M.: Europäischer Verlag der Wissenschaften.
- Schutz, P. A., Crowder, K. C. & White, V. E. (2001). The development of a goal to become a teacher. *Journal of Educational Psychology*, 93(2), 299-308.
<http://psycnet.apa.org/journals/edu/93/2/299.html>
- Schwarzer, R. & Jerusalem, M. (1999). Skala zur Allgemeinen Selbstwirksamkeitserwartung. In R. Schwarzer & M. Jerusalem (Eds.), *Skalen zur Erfassung von Lehrer- und Schülermerkmalen*. Dokumentation der psychometrischen Verfahren im Rahmen der Wissenschaftlichen Begleitung des Modellversuchs Selbstwirksame Schulen. Berlin.
- Serow, R. C., Eaker, D. J. & Forrest, K. D. (1994). "I want to see some kind of growth out of them": What the service ethic means to teacher-education students. *American Educational Research Journal*, 31(1), 27-48.
<http://dx.doi.org/10.3102/00028312031001027>
- Shulman, L. (1986). Paradigms and research programs in the study of teaching. In M. Wittrock (Ed.), *Handbook of research on teaching* (pp. 3-36). New York: Macmillan.
- Sieland, B. (2004). Lehrerbiografien zwischen Anforderungen und Ressourcen im System Schule. In A. Hillert & E. Schmitz (Eds.), *Psychosomatische Erkrankungen bei Lehrerinnen und Lehrern* (S. 143-161). Stuttgart, New York: Schattauer.

- Sinclair, C. (2008). Initial and changing student teacher motivation and commitment to teaching. *Asia-Pacific Journal of Teacher Education*, 36(2), 79-104. <http://dx.doi.org/10.1080/13598660801971658>
- Sinclair, C., Dowson, M. & McInerney, D. M. (2006). Motivations to teach: Psychometric perspectives across the first semester of teacher education. *Teachers College Record*, 108(6), 1132-1154. <http://www.tcrecord.org/content.asp?contentid=12520>
- Stiegelbauer, S. (1992). *Why we want to be teachers: New teachers talk about their reasons for entering the profession*. East Lansing, MI: National Center for Research on Teacher Learning.
- Su, Z. (1993). The study of the education of educators: A profile of teacher education students. *Journal of Research and Development in Education*, 26(3), 125-132.
- Thierack, A. (2002). Berufliche Vorstellung von Studierende in den Lehrämtern Primarstufe und Sekundarstufe I/II: Unter Berücksichtigung schulstufen- und geschlechtsspezifischer Besonderheiten. Münster: Lit.
- Treptow, E. (2006). Bildungsbiografien von Lehrerinnen und Lehrern. Eine empirische Untersuchung unter Berücksichtigung geschlechtsspezifischer Unterschiede. Münster: Waxmann.
- Tschannen-Moran, M. & Woolfolk-Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783-805. [http://dx.doi.org/10.1016/S0742-051X\(01\)00036-1](http://dx.doi.org/10.1016/S0742-051X(01)00036-1)
- Ulich, K. (1998). Berufswahlmotive angehender LehrerInnen. Eine Studie über Unterschiede nach Geschlecht und Lehramt. *Die Deutsche Schule*, 90, 64-78.
- Ulich, K. (2000). Traumberuf Lehrer/in? Berufsmotive und die (Un)Sicherheit der Berufsentscheidung. *Die Deutsche Schule*, 92, 41-53.
- van den Berg, R. (2002). Teachers' meanings regarding educational practice. *Review of Educational Research*, 72, 577-625. <http://dx.doi.org/10.3102/00346543072004577>
- Watt, H. M. G. & Richardson, P.W. (2007). Motivational factors influencing teaching as a career choice: Development and validation of the FIT-Choice Scale. *Journal of Experimental Education*, 75(3), 167-202. <http://dx.doi.org/10.3200/JEXE.75.3.167-202>
- Watt, H. M. G. & Richardson, P. W. (2008). Motivations, perceptions, and aspirations concerning teaching as a career for different types of beginning teachers. *Learning and Instruction*, 18(5), 408-428. <http://dx.doi.org/10.1016/j.learninstruc.2008.06.002>
- Weiner, L., Swearingen, J., Pagano, A. & Obi, R. (1993). *Choosing teaching as a career: Comparing motivations of Harvard and Urban college students*. East Lansing, MI: National Center for Research on Teacher Learning.
- Weiss, S., Braune, A., Steinherr, E. & Kiel, E. (2009). Studium Grundschullehramt: Zur problematischen Kompatibilität von Studien-/Berufswahlmotiven und Berufsvorstellungen. *Zeitschrift für Grundschulforschung*, 2(2), 126-138.
- Weitzel, C. (2005). *Grundschullehrerinnen und ihre Praxis*. Bad Heilbrunn: Klinkhardt.
- Wilhelm, K., Dewhurst-Savellis, J. & Parker, G. (2000). Teacher stress: An analysis of why teachers leave and why they stay. *Teachers and Teaching: Theory and Practice*, 6(3), 291-304. <http://dx.doi.org/10.1080/713698734>

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