A student teacher on the pathway to teaching profession: Reviewing research and proposing a model [1]

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Abstract: There has been a long tradition of research aimed at teachers and their professional development in educational and social contexts conducted continuously by both international and Czech research community. In terms of frequency and intensity of the research interest, two areas or stages of teachers' professional development are most focused on: a novice teacher and an expert teacher. The fact that studies on future teachers and the transformation of students of teaching into teachers are only few and far between deprives teacher education, both its theory and practice, of much needed in-depth insight into these stages. This study highlights two points: Firstly, the evidence of Czech researchers' low interest in conducting research into teacher education from within, and secondly, the fact that individual stages of professional development of future teachers can be examined and described. It is particularly vital to encompass the early professional development stage when substantial changes in the attitude of beginner students of teaching to themselves as well as to teacher education and practice take place; a student role is redefined. Pointing research interest to this direction results in two outcomes. It leads to recognising a human being within a teacher student; moreover, it provides grounds for authentic and individualised interventions into students' professional development at faculties of education.

Keywords: teacher education, expert teacher, novice teacher, stages of pre-service education, student teacher, teaching profession

Inquiries into teacher profession constitute a vital part of educational research in both past and present. A teacher in one of the stages of professional development, be it a novice teacher, an advanced beginner, a competent teacher or an expert teacher (Berliner, 1995), is brought into focus of such research. These attributes depict professionals in the field of education and

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skills related to education (cf. Štech, 1995), differing from one another by the quality of their teaching.

Digging deeper into the Czech educational research available, we come to conclusion that it is either the novice or expert stage of teachers' professional development that stands in the centre of interest, i.e. the utmost ends of the spectrum. The question is why it is so. There are two possible explanations. For example, as Píšová (2010) puts it, expert performance can be compared with the teaching of a novice teacher (in terms of content knowledge, methodology, teacher skills and roles). The other fact is that a growing number of supportive theories enhance insight into both professional groups. These theories not only provide background for research but also stem from it retrospectively, e.g. Schön's reflective practice model (1983), Wallace's model of applied science (1994) or Brooks and Sikes's competence-based model (1997).

However, there are differences, both fundamental and minor, between these two areas of research on teacher education. We aim to highlight dissimilarities in the examined phenomena. While the expert stage of professional development is studied by means of analyses of features of teaching in the context of cognitive as well as psychological and instructional interactions, i.e. autonomy, anticipation of situations at hand and their solutions, lesson planning, knowledge base etc. (Píšová, 2010), research into novice teachers is rather different in many respects. As Kagan (1992, In Píšová, 2010) summarises: novice teachers take the *pupil* variable into consideration for the first time while carrying out their teaching plans, they shift their attention from "self" to teaching and pupils, standardise educational processes used and gradually gain the ability to solve problems that may suddenly arise.

In recent studies on novice teachers the difference in their perception of developmental stages was pinpointed in three senses: *me* and the purpose of my pre-service education for my teaching (Urbánek, 2005), *me* and the conditions for my survival (Berliner, 1995; Juklová, 2009), *me* and my future expertise (Wiegerová et al., 2012; Chlebíková, 2013). Furthermore, there is another important attribute of research into novice teachers. In contrast to research into expert teachers, the research studies tend to aim at social and interactional aspects more as well as subjective aspects of *growing into* the role of a teacher (Gavora, 2008; Juklová, 2009; Chlebíková, 2013).

The two dominant topics outlined above prove increasing interest in particular stages of one's journey towards professional role of a teacher. Nevertheless, these stages are not being examined exclusively. In this respect, Janík et al.'s review (2009) must be mentioned as it describes the field of Czech research (not only) into teacher education and proves the relevance of particular research areas as well as current trends in the presented studies. The interest in the teacher personality is further reflected in research into teacher identity (Lukas, 2007), critical incidents in the course of teacher professional development (Švaříček, 2011), or teachers at the final stages of their professional careers (Lazarová, 2011).

However, the state of the art in research conducted in the Czech Republic documents the fact that apart from intense interest in a novice and expert teacher, there is little research carried out into other stages of professional development, especially the stages of pre-service education and the pathway from a beginner student teacher on the one hand to a competent teacher on the other. There are numerous reasons why to be interested in student teachers at particular stages of their development in the course of teacher education.

Let us depict three fundamental views:

- Students' professional development progresses in gradual stages outlined in the curricula of particular degree programmes, however, the development is not linear and each student adopts their own pace (Grossmann, 1995).

- The process of teacher professional development is full of impalpable changes; research into pre-service education may aim at distinguishing identifiers of such individual changes and, subsequently, those identifiers can serve as a basis for much-needed interventions (cf. Štech, 1995).

- A parallel should be drawn between educational research and its connection with theory where theory provides background for empirical studies and subsequently stems from the results of those studies as well. Similarly, teacher education should draw from research results and, at the same time, teacher professional development ought to result from an intersection of curriculum of a degree programme on the one hand and a future teacher's potential on the other (one's presuppositions, limits, mindset etc.).

So far the text attempted to demonstrate that in a broad context Czech research proves an interest in teacher professional development in all its stages, on the other hand, most attention is paid to the extreme poles of the teacher post-graduate professional paths. This paper aims to outline the areas of research interest in pre-service stage of teacher professional development and to answer the following questions briefly:

- What are researchers most interested in and which stages of future teachers' pre-service development are involved?

- How can research be described and how its findings can be interpreted?

- Which stages of pre-service teacher education are neglected by researchers at present?

- If, as predicted, focus should be shifted to early professional development, i.e. a future teacher as a beginner and advanced beginner student, what are the stages on the pathway to the teaching profession?

The main idea behind further description of the teacher profession through the lens of selected research studies was an observation of the change in student role in its particular stages. Let us present the following findings at this point: based on relevant resources and our knowledge of the main areas of research in the Czech context, 6 basic stages of teacher professional development were identified in teacher education:

- *orientation:* teacher education applicant;

- *motivation:* beginner student teacher;

- *first redefinition:* student teacher redefining his/her social-personality role;

- *second redefinition:* student teacher redefining his/her didactic and reflective role;

- *competence:* graduate;

- *opening up to the profession:* novice teacher.

Designation of those epistemological changes was essential in order to be able to systematise the selected examples of research into teacher education as well as to detect the intensity of research interest and its direction (Table 1).

1 Student teacher in research: A review

1.1 Procedure

Table 1 summarises 20 examples of research studies on teacher pre-service education in order to cover the period between approximately the end of the 1990s until present. Basic criteria for the selection of the research studies ought to be presented:

(a) Examples of good research practice;

(b) covering the whole range of the six stages of teacher professional development;

(c) examples of research conducted by researchers of authority who have been long engaged in research on teacher education;

(d) representation of the time period in which the research studies were conducted;

(e) addition to a complete overview = ensuring time and content continuity in research on future teachers.

It is apparent that the selected research studies only serve as an illustration of research on pre-service teacher education as it has been a complex and dynamic process in the last two decades or so. This notion is supported by Lukášová-Kantorková's findings, for example (2003, p. 195), who analysed 9 subsequent *Czech Educational Research Association* conference proceedings. There she identified 525 papers altogether, out of which 35.4% were aimed at research on a teacher and teacher education conducted by 128 researchers. There are several state-of-the-art surveys, for instance by Janík (2010a, 2010b) on the main points of research focus in the area of teacher education nowadays.

Our aim was to establish which stages of pre-service education the interest of particular researchers lay in and who the respondents were; the aims of the studies were depicted, research instruments described and the results presented; last but not least, theoretical background serving as a basis for the research was focused on in Table 1 (see below).

Table 1
Examples of Czech research studies into teacher pre-service education

Stage: Student role	Reference	Key words	Primary aims of study	Theoretical background	Respondents / research sample	Research methods / instruments	Results
Orientation: teacher education applicant	Havlík (1995)	Teaching profession, professional prospects, motivation, teacher education programme applicant, university student	To explore motives for opting for a teacher education programme, to explore professional prospects and possibilities for future employment	n/a	227 applicants (year 1994), 469 first year students at the Faculty of Education Jan Evangelista Purkyně University and Charles University in Prague	Document analysis, questionnaire survey linked to entrance exams, the same questionnaire for first-year students	Interest in teacher education programme is differentiated according to subjects, family tradition has a strong influence, in primary education programmes women have higher motivation, professional prospects are individual
	Koucírová (2005)	Motivation, choice of teaching as a field of study, vocational anticipations	To determine incentives and motivation for the career choice	n/a	107 applicants for the degree programmes of teaching for primary school and social work	Non-standardised questionnaire with closed-ended and semi-closed-ended questions	Motivation: working with children, obtaining a university degree, interest in humanities, inconsistent anticipations concerning the profession (about primary education level, about further studies)

	Author	Keywords	Aim	Theory	Sample	Method	Findings
Motivation: beginner student teacher	Janík (2005)	Teacher education, pedagogical knowledge, pedagogical content knowledge	To describe the content of future primary school teachers' pedagogical knowledge	Shulman's theory of teachers' professional knowledge	103 future primary school teachers' in the first year at the Faculty of Education, Masaryk University	Original questionnaire on pedagogical knowledge (unfinished sentences, concept mapping, case study)	Knowledge about students was the most represented category, followed by content knowledge, knowledge about aims of education, the least represented was knowledge of contexts of education
	Stuchlíková (2006)	Professional identity, implicit theories of teaching, anxiety, repressive coping style, implicit motivation	To identify and analyse implicit motives of students at the beginning of their studies	Theory of implicit processes (Mathews, Roussell, Sternberg, Torff) implicit motivation (Kehr)	First-year students: 82 students of primary school teaching, 95 students of lower secondary school teaching	MMG questionnaire (Sokolowsky et al.), PCI questionnaire (Klinger, Man, & Stuchlíková)	Future lower secondary school teachers display greater fear of failure and higher performance motivation, future primary school teachers identify themselves with their future profession more and their personal goals are on higher level
	Svatoš (2012)	Teacher professional development, pre-service education, beginner students, student portfolio	To determine motivation to study, identify expectations, describe respondents' communicative self-image, compare populations of 2001/2011	Self-efficacy theory (Bandura)	371 beginner students of teaching (divided into two samples with a 10-year gap)	Non-standardised structured multiple questionnaires PofoS, quantitative and qualitative analysis of student portfolio	Motivation for the choice of teaching as a profession has changed: shift from social significance towards personal values; expectations differ too: increasing need to obtain a university degree as a proof of personal qualities, increasing interest in more complex knowledge of teaching as one's future profession

Nezvalová (2000)	Reflectivity, individual thinking, reflection of degree programmes	To determine attitudes after reflective training, to determine changes in professional readiness	Schön and Van Manen's theory of reflectivity and levels of reflective practice	107 third-year students who have acquired theoretical background knowledge and are entering into intense teaching practice phase	Survey (structured and semi-structured interview with open-ended questions)	Positive changes in the following areas: lesson planning, realisation and self-evaluation, difference in the attitude to theory and practice, general increase in disposition towards teaching
Chráska (2003)	Attitudes to the teaching profession, gender differences	To determine attitudes to the teaching profession, reflect on current studies, compare attitudes of men and women	n/a	371 third-year students of teaching for lower-secondary school	Q-sort method, semantic differential, ATTP questionnaire	Female students: teaching is rather more challenging, crucial moment in the 2nd year, disenchantment, importance of continuous training; various attitudes: more negative in language specialisations
Juklová (2009)	Student, self-reflection, professional identity, motivation, qualitative analysis	To determine motivation factors for choice of career, describe professional goals and emotions related to the profession	Self-efficacy theory (Bandura, Blatný)	44 second-year students of various fields of secondary and upper-secondary schools, in the context of teaching psychological disciplines	Written self-reflection together with self-prognosis, qualitative analysis, interpretation by means of grounded theory	Self-concepts mostly consist of scattered knowledge out of context and with no relation to ones' selves, lack of experience, students are opposed to self-reflection, don't see its point

First redefinition: student teacher redefining his/her social-personality role

Second redefinition: student teacher redefining his/her didactic and reflective role

Author	Topics	Objective	Theory/concepts	Sample	Methods	Results
Hanušová (2005)	Models of teacher education, reflection of teaching practice, ELT methodology	To identify attitudes after teaching practice, to determine level of methodological readiness	Imitation professional models (Wallace), reflective model (Schön), model of applied science (Stern)	31 fourth-year students of English language teaching	Written student reflections, moderated student e-learning forum	New experiences, carrying out ones' own pre-concepts in contrast to imitation as a means of validation, difficulties in managing behavioural problems rather than focus on pedagogical content knowledge
Píšová (2005)	Theory of the teaching profession, professional development, professional learning, clinical year, assistant, mentor	To describe determinants of student teachers' professional development during clinical year	Selected theories of professional development (Lortie, La Boskey, Eraut, Berliner, Kagan, Průcha, Švec)	15 student teachers, clinical year 2001/2002, basic schools and grammar schools	Evaluation sheets, questionnaires, indirect observations, content analysis	Individual character of professional development confirmed, discrepancy between professional performance and thinking, development promoted through appropriate interventions and self-evaluative instruments
Stehlíková (2010)	Pedagogical content knowledge, teachers and students of maths, maths teaching methodology	To explore what students notice in recordings of lessons; to identify particular phenomena in maths teaching methodology	Pedagogical content knowledge (Shulman), ability to notice (Sherin & van Es)	70 students of teaching maths (for various types of schools and subjects) with a professional module completed	Questionnaire, qualitative response analysis of unfinished sentence completions (open coding)	Identification of the relation between a teacher's pedagogical readiness and students' activity, not much direct inspiration for maths teaching from sitting in on classes, individual perception of the teaching process
Vašutová (2008)	Future teachers' preparation in education and psychology courses, reflection	To evaluate the implementation of an innovative approach to pre-service teacher education, explore its influence on participants' competences	Teaching styles (Brophy, Good, Allport, Maslow, Rogers, Gardner, Freire)	3783 students from 3 faculties of education after taking part in "Days of Education," all subjects were represented	Structured questionnaire (11 items), multiple choice and open questions	The innovation proved successful, new knowledge was gained, students attitudes to education and psychology courses were more positive, educational values and priorities became clearer
Duschinská (2011)	Mentoring, pre-graduate teacher education, supporting professional learning	To describe and analyse a mentoring process as a means of facilitating learning processes, to outline possible interventions	Professional development theory (Woods), professional learning (Vonk), mentoring theory (Clutterbuck)	Gradually constructed research sample, 4 groups of students after completion of the third year of studies (2009–2010)	Qualitative methodology, focus group, in-depth interview, interpretation by means of grounded theory	Mentoring is a complex and very complicated system; important: two levels – interrelationships and processes; knowing the student (his/her expectations and professional and personal characteristics) leads to interventions and educative effects

Competence: graduate

Author	Focus	Aim	Typology	Sample	Method	Results
Nelešovská (2001)	Faculty of education graduate, career opportunities, teacher's role of an educator, feedback for teacher education	To determine graduates' career opportunities, identify views of professional readiness	n/a	140 respondents, graduates from combined degree programme of teaching for primary school	Questionnaire	Increase in career opportunities for university graduates, decrease in the number of teachers teaching a subject they are not qualified for, acceptance of further education, good content knowledge acquired at university, more methodology taught as well as educational, psychological and communication preparation
Urbánek (2005)	Faculty of education graduate, professional activities, self-reflection, self-assessment	To determine the amount and quality of teaching activities as seen by students after a period of teaching practice; to analyse tendencies of development	n/a	926 Faculty of Education graduates, longitudinal study between the years 1996-2003	Non-standardised self-reflective questionnaire	Challenging activities: lesson planning, assessment, application of educational methods; managed best: communication, motivating pupils, individualised approach; tendency: increase in interactive preparedness, decrease in the ability to solve behavioural problems
Vašutová (2008)	See above					
Wernerová (2009)	Professional competence, teachers' professional activities, pre-graduate teacher education, teaching practice	To analyse perspectives of three groups of respondents on the difficulty of teachers professional activities	Typologies of teachers' activities (Bližkovský, Vašutová, Ur-bánek, Švec)	89 students at the end of teacher education study programme, 174 faculty teachers, 14 subject matter methodologists (2007/2008, Technical University in Liberec)	Questionnaire based on prioritising of listed teachers' professional activities	Teachers' professional activities perceived as most difficult: time planning of the lesson, dealing with students' discipline; teachers' professional activities perceived as not difficult: communication with students. Faculty teachers were more critical in evaluation of students than other groups of respondents

Opening up to the profession: novice teacher

	Key terms	Aim	Theoretical basis	Sample	Method	Findings
Šimoník (1994)	Teaching profession, novice teacher, conditions for teaching, mentor teacher, teacher education	To explore the acceptance of novice teachers in the school, problems of novice teachers, their relations to teacher education	Selected theories of teaching profession (Brabander, Černotová, Goodman, Hrabal, Mareš, Rys, Tmej, Švec, Zeichner)	141 novice teachers, after one year in practice, survey realised in South Moravia 1990–1992	Questionnaire survey, individual and group interviews	Entering teaching profession – confrontation with ideals and with teacher education; relationship with profession is fostered; mostly positive climate in schools that novice teachers enter; dealing with students discipline is problematic; self-reflection is rare
Píšová (1999)	Novice teacher, self-reflection, professional induction, subjective and objective determinants	To identify subjective perceptions of the problems of professional start	Reflective practice (Schön), professional thinking (Calderhead), professional socialization (selection)	Phase 1: 32 novice teachers (students in a distance MA programme, University of Pardubice) Phase 2: 37 novice teachers (both phases – teachers of English)	Content analysis of reflective journals, content analysis of semi-structured interviews, questionnaire	Perceived problems in terms of objective determinants: key role of school culture (climate, value orientation), absence of feedback; subjective determinants: low level of self-reflection, self-confidence, self-management, deficits in competencies for planning, classroom management and diagnostic competence
Havlík (2003)	Novice teacher, professional readiness, deficiencies in pre-service education	To determine novice teachers' views of their readiness and career opportunities	n/a	315 novice teachers (for primary and lower-secondary schools) in different professional positions	Structured questionnaire	Recommendations for teacher education: more teaching practice, less theory, more opportunities for active approach; further education: acquisition of new methods, language and ICT skills
Juklová (2009)	Novice teacher, identity, professional role, development of self-concept	To describe the development of relation to one's profession, to determine the influence of good career prospect, to examine relation to work environment	Systemic model of professional development (Fessler), self-concept (Brichcín, Woods), research into school climate (Mareš)	3 novice teachers, characteristics of their school achievement and their narrative self-description	In-depth interviews, significant life events method, qualitative interpretation by means of grounded theory	Three types of professional orientation: to pupils, to the degree of study, to the field of study and experience, university education had little impact, prevailing theory, then transition and culture shock, recommendations: follow student's personality development and include training in self-knowledge

1.2 Review outcomes

Table 1 is not exhausting. If we take into consideration the larger scope of current state of the art though, some tendencies arise.

1.2.1 Theoretical background

Most empirical studies were conducted comprising regular steps i.e. describing the state-of-the-art, designating a problem and setting the aim of research, formulating hypotheses, determining methods used, data collection, formulating and answering research questions, verification of hypotheses and discussion of results and providing outlook into future research and practice. In some studies, the theoretical background was less prominent.

Hand-in-hand with the development of qualitative methodology there come the changes in not only research design but also the researchers' approach to theory. It fulfils two basic roles in current research. There is theory as the source of background knowledge, which empirical studies stem from and, vice versa, which is confronted with new findings in final stages of research. This is typical of the so-called representative research projects of various kinds (long-term projects, monographs, qualification papers such as dissertations etc.) where a theoretical fundament is considered a sine-qua-non. In other qualitative studies, theory serves as a fully-fledged part of research results, either in terms of theoretical input being elaborated on or as a new source of information arising from the empirical study (grounded theory).

The absence of research-based theory is an evident deficit of the studies we focus on. In research into teacher education, answers to the following questions would be appreciated in particular:

- What stages does a student teacher go through from the beginning of their professional development (beginner student teacher) to graduating from pre-service teacher education?

- What indicators of the individual stages of becoming a teacher can be recognised and how to understand the stages of a teacher's professional development?

1.2.2 Research aims

The analysis has determined that research mainly aims at two areas. It concentrates on students' attitudes and opinions at two stages of their pre-

service education: Firstly, at the second redefinition stage where the interest lies in the assessment of a student's readiness for the teaching profession through his/her concepts of content as well as pedagogical knowledge. The other frequent group of respondents comprises graduates from faculties of education. These studies focus on the contributions and deficiencies of teacher education. They are mostly evaluative in retrospective and may serve as an inducement for adjustments in current teacher education models. What is typical of the two groups in focus is the fact that in both cases respondents are at a stage of professional development with sufficient content and pedagogical knowledge as well as the ability to make statements about themselves in order to be considered researchers' partners.

On the other hand, the remaining stages of pre-service professional development have been rarely tackled. There are several areas lacking more in-depth descriptions and analyses. At the very beginning, there are scarce data concerning who the teacher education applicants (beginner students later on) are and what their motivation, anticipations and expectations of teacher education are. At present, these studies are crucial as the number of teacher education applicants decreases and, at the same time, there is an increase in the number of difficult students who are admitted to begin teacher education without having to go through the necessary selection at entrance exams.

Research into social aspects of teacher professional development is another area that ought to be focused on as it might provide insight into the process of teachers growing into their role (e.g. recognising changes in learning styles, understanding personal growth, determining successful or unsuccessful social interactions, overcoming high-school habits, searching for turning points in the course of professional development, etc.) Nonetheless, it is understandable that research into pedagogical knowledge and/or instructional skills of future teachers is more traditional, easier to propose and conduct, and provides better opportunities for further comparisons.

1.2.3   Samples/respondents

Most research studies focus on student teachers in the course or right after finishing their reflective teaching practice, i.e. when their didactic education is being tested in authentic school environment. Similarly, research into

novice teachers' reflections on their recently finished teacher education is common.

On the other hand, research into students in early stages of their teacher education is rather scarce; particularly beginner students and the process of their establishing themselves at the faculties of education are little known about.

1.2.4   Research methods / instruments

In the context of current educational research it comes as no surprise that quantitative methodology of research into future teachers is often replaced by qualitative or mixed-method approach. As the research questions changed, so did the strategies and research instruments. Regarding research methods, they tend to shift from questionnaires towards in-depth interviews or focus groups, the strengths of narrative and reflective techniques are taken advantage of and a future teacher becomes the centre of attention of case studies. Last but not least, the potential that student portfolios have for research is being recognised.

The results of our analysis have shown that qualitative studies comprise minority of research into future teachers. There is no obvious answer as to why it is so. On the one hand, qualitative methodology is based on elaborate data collection and processing (e.g. open, axial and structured coding), on the other hand, application of these methods is demanding in many respects, time-consuming to say the least.

Even though technologies can be used at some stages of research (data collection and analysis of the transcribed communication in particular), it is the researcher who carries out majority of the work themselves. Since the researcher is mostly a teacher at the same time, the twofold role is even more challenging. There are several improvements crucial to enhance research into these areas such as intensive study of methodology, working with resources in foreign languages (looking up databases, making excerpts) and using technologies (mastering research software and audio-visual devices).

1.2.5   Research findings

It is not possible to summarise all research findings, nevertheless, three areas of results tend to stand out:

- Results concerning a future teacher in the course of their professional development (in terms of feedback on the level of their readiness, providing a comparison of their individual level and the requirements of faculties of education).

- Results concerning the faculties of education preparing future teachers (what the contributions of the studies were, how they could become more effective; these results comprise general ideas and suggestions for improvement and supplementation of current degree programmes).

- Results concerning conceptual issues related to professional readiness of future teachers in terms of content knowledge as well as instructional skills (the analyses of students' entry into various types of graded teaching practice, investigation into the arising conceptions of teaching in relevant school subjects, description of the level of content knowledge as well as instructional skills of a student of teaching).

In summary, the focus on research into teacher education is scattered; many studies are conducted in a traditional way (especially those aiming at the second stage of pre-service education) and concentrate on analyses of content knowledge and instructional skills as well as graduates' reflections of their education.

There are gaps in our knowledge of a student on the pathway to the teaching profession, particularly in the first half of their pre-service education. This might be the reason why valid theoretical background for the early professional development stage is missing.

2   Proposing a model of professional development stages during teacher pre-service education

There is considerable need for designation and definition of professional development stages during pre-service teacher education. Nevertheless, state of the art in research on teacher education provides many recommendations for further exploration of the respective field, for example the works by Dytrtová and Krhutová (2009), Kasáčová (2009), Janík and Havel et al. (2005), Juklová (2008), Nezvalová (2000), Píšová (2005), Průcha (2002, 2009), Spilková (2008), Vašutová (2008) and others. However, they only serve as an initial input rather than providing a complex model.

We consider several Czech authors' inputs essential, therefore worth mentioning at this point. Spilková (2004) has divided the development of student's professional identity into four stages: initial stage (with the intent to motivate), identification stage (preconceptions of teaching), theoretical-reflective stage (influenced by action theory and the reflection of teaching attempts), and contextual stage (with overall teaching conception set in wider context). Píšová (2005) sees the genesis of a "person in the role of a future teacher" differently as she designates three phases of future teachers' professional development: initial phase (constituted by theoretical pedagogical and psychological support, observations and teaching attempts), implementation phase (the centre of the model – the clinical year) and reflective phase (where the development can be sped up by a reflective didactic seminar).

In degree programmes at faculties of education, the topic of staging of professional development is to be found in models of increase in future teachers' readiness for teaching. For example there is the Seberová's concept of structured teaching practice segmented in gradual stages (2010). Implicitly they are included in various models of competences for specific school subjects where they are gradually and subsequently structured (Vašutová, 2001).

Based on the content of both the studies mentioned above and theoretical background summarised earlier in this study, and stemming from our expertise (for details see Svatoš, 2006, 2010, 2012), we have developed a tentative model aiming at the depiction of the trajectory of teacher professional development in the course of pre-service education and determine the stages a future teacher goes through. Considering the complexity of the topic, the proposed model only serves as a possible basis and inspiration for further examination.

Adaptation stage: beginner student teachers
The aims of teacher education
To provide conditions for adaptation and acceptance of the role of a student teacher; to lead to understanding professional development in the whole course of studies; to begin the change from a student teacher's way of thinking towards a teacher's way; to establish primary pedagogical and psychological support; to provide conditions for observation and understanding of the school reality.

2.1 Professional development in the course of pre-service education
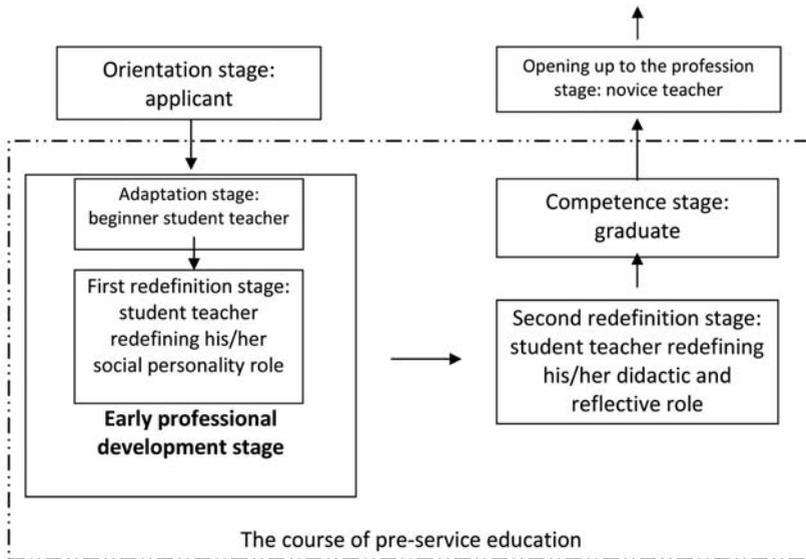
Figure 1. Model of professional development stages in the course of pre-service education

Indicators of professional development and socialisation

The transition of a high-school pupil to a university student is often accompanied by euphoria and other generally positive feelings. However, during the process of getting acquainted with the student role, first problems arise. On the one hand, a student is confronted with their degree programme and the school climate; on the other hand there is a number of high-school residues and insecurities in terms of adaptation to the new environment. Their existing learning styles do not provide expected results; moreover, their habitual communication and interaction strategies prove to be ineffective. External pressure is substituted with internal one. The process of gaining independence from the family requires new family rituals and stereotypes. New peer relationships are formed and a student begins to compare their position with the others'. At that point, many a student resorts to attempts to hide in the crowd.

First redefinition stage: student teacher redefining his/her social personality role

The aims of teacher education

To encourage a student to accept the responsibility for their studies and performance in the course of their professional development; to deepen their pedagogical and psychological way of thinking; to create a link between theoretical content knowledge and practical instructional skills assigned and practiced in tutorials; to support microteaching practice; to guide a student to habitual self-reflection and self-assessment; to pave the way to in-depth evaluation of school reality and understanding the roles of its key participants as well as their social and pedagogical interactions.

Indicators of professional development and socialisation

As beginner student teachers settle in their role, they gradually interiorise the requirements of the faculties of education. Novelty is substituted by a routine, understanding of various perspectives and contemplation whether and under what circumstances to continue studying and what kind of effort to make. A student role is redefined substantially: from an individual as a part of a study group towards a self-defining individual alongside other such persons. There is an apparent step out of the anonymous study group as students assess their future performance as teachers through the prism of self-knowledge and prediction of their own social and personal development.

Second redefinition: student teacher redefining his/her didactic and reflective role

The aims of teacher education

To establish specialist preparation as an applied field in the school education; to interlink fields of study with pedagogical transformation; to prepare the ground for consecutive opportunities for a student to act in the role of a teacher; to understand practice as a process of reflective learning – typical of teacher education; to instruct students on specific approach to education, including pupils with special needs, in the course of pedagogical and psychological preparation.

Indicators of professional development and socialisation

The second group of research studies is defined by assessment of possible future success on the basis of microteaching practice at schools. The role

redefinition is characterised by a different approach to theory, pedagogy is applied and linked to real practical situations. Professional development brings a lot of new experience and reflective evaluations of future teachers' attempts to conduct teaching in practice sessions at real schools. Apart from theoretical content and pedagogical knowledge, a future teacher is confronted with the actual pupil social group and the educational side to teaching. It is these authentic educational problems that often lead to future teachers' self-doubt and uncertainty whether or not they will be able to manage the real stress of their future profession. This seems to be a stage full of turning points with direct impact on further professional development.

Competence stage: a graduate
The aims of teacher education

To bring future teachers to a stage where they are capable of autonomous professional conduct of expected and acceptable activities; to encourage them to evaluate their present opportunities as a result of their professional development in the course of studies and self-development (in all cognitive and specialised, psychological and pedagogical, and social and communicative aspects); to reinforce future teachers' positive self-image as it is a prerequisite of their further professional development.

Indicators of professional development and socialisation

A student of teaching becomes a graduate after fulfilling both curricular and administrative conditions required by the respective degree programme. The graduates' early assessment separates in two directions: towards reflection of recently finished studies in terms of gains and deficits on the one hand, and personal expectations, options and prognoses on the other. Personal values are influenced dominantly by personal relationships as well as confronted with the reality of career options. Finding one's way on the labour market can be accompanied by illusions and disillusionment, certainty and uncertainty, feelings of consonance or dissonance with the school as a social, professional and management environment.

2.2   The stages of early professional development in the course of pre-service teacher education

In the last part of our paper we will focus on a specific group of students of teaching, those who are at the very beginning of their professional pathway

(see Table 2). We believe that this professional group, which we have been devoting our interest to recently, is neglected unfairly.

Table 2

The stages of early professional development

Early stage of professional development		With respect to oneself (socialising)	With respect to teacher education (professionalising)
Adaptation		finding one's way in a heterogeneous group, first expectations, motivation, identification of changes	missing the point of the programme, behavioural patterns of a high-school pupil, prediction of difficulties, acceptance of external pressure
First redefinition stage: student teacher redefining his/her social personality role	**Comparative**	realising one's possibilities and limits, their projection to new social interactions	understanding of professional development, requirements, theory and practice
	Convergent	de-socialisation and egocentrism, focus on personal identity, development at the expense of a student group	beginning of interiorisation, adjusting one's present and future possibilities and capabilities to the requirements

Why should beginner students be the focus of research?

We are convinced that a beginner student requires both social and educational attention for numerous reasons. First of all, motivation to enter into teacher education changes from predictable motives to calculating ones (cutting oneself off from a family, extending the period of careless youth, getting a degree, winning enough time for hobbies etc.). Therefore expectations upon entry to teacher education change and there is a risk of its applicants only being passive recipients of external professional development efforts as a result of entering the education for all the wrong reasons.

In the long run it is also apparent that the faculty has to substitute for social, personal and communication deficiencies of higher secondary schools; we experience the necessity of helping beginner students to adapt in terms of encouraging them to take part in a dialogue, accept responsibility for their actions as well as the way of thinking, getting used to being assessed as well as assessing others and learning to compare one's approach and attitude to

those of others'. Last but not least, students at the beginning of pre-service education learn to study while their habitual learning strategies acquired at high school usually prove to be ineffective and standing in the way of positive perception of the beginning of their studies. Apart from one exception, we primarily focused on social aspects of entering a faculty of education. Thus these two phases of professional development are called the first role redefinition stage in terms of social and personal development and they round off the early professional development stage (see table 2 for details).

To sum up, the main reason why beginner student teachers should be in the centre of researchers' attention is the fact that the composition of students admitted to faculties of education is changing, therefore the institutions of teacher education should react to the trend by getting to know the students and adjust the strategies and approach to their professional development accordingly.

3   Conclusion

Firstly, it was pointed out that current research into teacher education is intensive on the one hand, but on the other hand it is unevenly distributed in terms of research focus, instruments and results. Researchers tend to be traditionally interested in professional qualities of novice and expert teachers. As a result of our review, we find research studies into future teachers at various stages of their professional development in the course of teacher education insufficient. However, the process of adapting to the teacher role is successfully depicted in case of future teachers in the course of observed teaching practice where they apply the content knowledge as well as psychological and instructional skills acquired during their studies; moreover, studies into graduates also frequently aim at the outcomes of pre-service teacher education. Unfortunately, much less is known about novice teachers who enter the professional arena and are rather interesting as their characteristics evolve in the context of social and demographic changes.

With respect to the effectiveness and authenticity of teacher education, two major conditions ought to be fulfilled: the particular stages of professional development in the course of teacher pre-service education should be described and it must be determined who the students of teaching really are.

Both these conditions are crucial for the institutions of teacher education. If we can anticipate the professional development trajectories, fill them properly with cognitive and social content, and at the same time get to know the roles and personalities of the participants, significant potential for adjustments to current degree programmes will be uncovered. Such degree programmes will have the ambition to be considerably higher-quality and accommodating for a future teacher.

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Student na cestě k učitelství – inspirace z výzkumné praxe

Abstrakt: Výzkumy věnované učiteli, jeho profesnímu vývoji v edukačních i sociálních souvislostech mají dlouho tradici a jsou v nejen v českém výzkumném prostředí neustále obohacovány novými badatelskými podněty. Intenzitou, ale také četností se výzkumný zájem soustředí především do dvou profesních stádií: směrem k poznání začínajícího učitele a popisu učitele-experta. Je ke škodě pedeutologické teorie i praxe, že bádání jen v některých případech směřují k pregraduální přípravě a poznávání proměn studenta v budoucího učitele. Předkládaná stať poukazuje na dvě okolnosti: první – potvrzující zmiňovanou skutečnost o menším zájmu českých badatelů o výzkumy „uvnitř" učitelského vzdělávání, a druhou – že je možné popsat vývojové profesionalizační etapy v pregraduální přípravě a také je výzkumně ověřovat. Zvláště významné je to v období tzv. ranné profesionalizace, kdy dochází k podstatným změnám v postojích začínajících studentů učitelství k sobě samému, učitelskému vzdělávání i pojetí edukační praxe (dochází k redefinování studentské role). Zvýšení badatelského zájmu tímto směrem má dva významné efekty: především vede k poznávání „člověka v roli studenta učitelství" a současně dává instituci učitelského vzdělávání příležitost k autentickým a individuálně zaměřeným intervencím.

Klíčová slova: pedeutologické výzkumy, učitel-expert, začínající učitel, etapy pregraduálního vzdělání, redefinice studentské role, raná profesionalizace