

Trends in Practical Undergraduate Training of Future Primary School Teachers

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Abstract

The aim of the paper is to outline the development and current trends in practical aspects of undergraduate training of future primary school teachers. The research is based on the requirements of schools which need thoroughly trained students prepared for practical educational work. For a long time, university education has primarily focused on teaching theoretical knowledge without practical applications. Currently, the authors of the present paper aim to implement the “Lesson Study” method in practical teacher training courses in universities. According to this method, the system of practical training involves several actors—supervisor (expert from university), teacher trainer (expert from elementary school), and a group of students. The paper presents an analysis of practical educational requirements for the implementation of this method. The paper is a partial outcome of the project *Development of the concept of undergraduate training of primary school teachers with an emphasis on communication competences*.

Keywords: Pregradual Preparation, Practice, Lesson Study, Teaching For Primary School, Development Of The Study Field

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Introduction

In the past 30 years, the concept of undergraduate training of future primary school teachers in the Czech Republic has gone through considerable development. On the one hand, the teacher training course for primary school teachers is a new independent field of study; on the other hand, this is the result of democratization, liberalization, humanization, and political and social effects. The system of education is affected by individual (parents') interests, social interests (education of good citizens), and the interests of various groups engaged (including teachers). The basic concept the school reflects J. A. Comenius' "workshops of humanity" (Provázková Stolinská, 2015). This has a significant effect on the transformation of the goals, content, structure, and organization of the study. The basic concept is the humanist paradigm of grounded theory of reflective thinking, educational constructivism, and professional teacher competences as a system of contextual knowledge (Lukášová-Kantorková, 2004; Kasáčová, 2005; Švec, 2005). The requirement is to develop a school of communication, partnership, cooperation, and personality based approach (Problémy vzdelávania učiteľov 1. stupňa ZŠ, 1994).

Emphasis is on developing and supporting the professionalization of the teaching profession and transforming the teaching profession to include occupational roles and competences, and the development of the teacher personality.

Below is a reference to a scientific study aimed at the development and the current concept of undergraduate training of future primary school teachers in the Czech Republic.

1 Development of undergraduate preparation of future primary school teachers

In the post-revolutionary period, professionals searched for effective elements of modern and responsive concepts of undergraduate education the purpose of which was to replace the existing system from the 1960s. As stated by A. Nelešovská (1995, p. 3), the previous concept had been completely unsuitable and even questioned the ability of educational professionals to be aware of and resolve problems. The beginning of this period was marked by a lack of educational policy on teacher education. Most documents did not address the issue of the teaching profession directly, some included general references (relating for example to teacher prestige and importance in school transformations, basic models of teacher education, need for further growth, etc.) There were also some documents on selected or partial problems (e.g. the issue of educational faculties, length of study for different categories of teachers, etc.) In the past, there had been significant efforts to make the teaching process professional, but until 1995, the Ministry of Education had not presented any idea concerning the system of undergraduate teacher training. This provided space for a new "bottom-up" paradigm created directly at faculties of education (Příprava učitel'ov v procese školských reforiem, 2009; Spilková, Hejlová, 2010).

The discussions also included the very concept of the teacher as a facilitator in the process of learning. This is a change in the profession of the teacher who becomes the co-creator of the curriculum (Kosová, 2005; Spilková, Vašutová, 2008). Within this concept, the teacher is supposed to create the right conditions and control the process of learning including educational diagnostics in order to reveal individual students'

peculiarities and their individual maximum performance. The teacher should be a guide on the journey to knowledge and help the student comprehend the world, encourage, inspire, help achieve the competences, and oversee the fulfilment of the rules of school life. Taking this concept into consideration, the subject-specific competence of the teacher loses its original exclusive status. The main focus was now the skill of didactic transformation of the learning content with respect to the students' age and individual specifics, the skill to motivate to discover, activate thinking, create favourable social, emotional, and working climate, etc. A very significant aspect related to communication skills which are the basis of the whole transformation of the educational processes (Spilková, 2002; Lukášová-Kantorková, 2004, Provázková Stolinská, 2015). Education requires close interaction and stimulating communication between all key actors. It is not possible to develop these skills by stereotyped training and imitation of best practices and attitudes, because it is important to anticipate and respond to various changes and emerging educational situations (Maňák, 2011). A significant element that helped improve the quality of undergraduate training was the innovation of teaching practices. In this innovative approach, from the very beginning of their study, the students were in specific real contact with the learners in terms of relevant educational and psychological disciplines and course-specific didactics (in Spilková, Hejlová, 2010).

The transformational and restructuring efforts, concepts, approaches, and visions in undergraduate training from 1990s implemented at Czech faculties of education resulted in concrete changes. At the Czech-Slovak scientific symposium held in 2010, the following innovations in undergraduate training of primary school teachers in Olomouc were proposed:

1. Changes in the concept of study: specification of the terminology of the field of study, changes in the content (inclusion of new disciplines and themes); intensification: in the previous paradigm, the main courses were of a general nature (for example general education and didactics, etc.); study courses that focus on the specialization of future teachers and their employability;
2. Changes in the concept of teaching practices (formerly from the 3rd year) and deepening of cooperation between the university and schools;
3. Innovation of course-specific didactics in the context of teaching practices;
4. Deepening of knowledge and specialization in the training of practical and arts subjects;
5. Changes in the concept of the State Final Examination: integration of the courses, using the portfolio, integration of the didactics of the Czech language and mathematics into the system of the State Final Examination;
6. Changes in the methods and forms of work: strengthening of the methods that support greater students' activity and creativity, development of the conditions necessary for teaching smaller groups;
7. Inclusion of students in international research activities (students' scientific club since 1993);
8. Supporting talented students;
9. Evaluation activities aimed at evaluating the concept of the study;
10. Emphasis on promoting lifelong learning.

These measures were systematically implemented. In the following years, the field of study Teacher training for primary schools was accredited with the following structure of teaching practice:

Table 1: Arrangement of teaching practices in the 2018/2019 academic year at the Faculty of Education, Palacký University Olomouc (CR)

Year	Term	Subjects		Teaching practice	
1.	W	Introduction in the study	Teacher's communicative skills	Observation practice in primary school	Student micro-teaching session in primary school (approximately 5 minutes)
1.	S	Didactics of primary education		Observation practice to identify didactic categories	
2.	W	Methodology of educational work		Observation practice in schools with few classes	
3.	W	Didactics of initial reading and writing		Observation practice in the first grade of primary school	
3.	S	Didactics of music education		Observation practice according to the student's choice: music education, technical education	
4.	W	Didactics of arts education	Music-didactic practicum	Teaching practice: practical and arts subjects	
4.	S	Didactics of mathematics		Teaching practice: mathematics, Czech language, basics of humanities and natural science	
4.	S	Didactics of basics of humanities and natural science		Practice with a focus on the didactics of basics of humanities and natural science	
5.	W	Didactics of natural history	Didactics of national history	Teaching practice: mathematics, Czech language, national history, natural history	Practice with a focus on natural history and national history

5.	S	Continuous teaching practice: 5 weeks fully organized school + 3 weeks school with few classes
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During the study, the theoretical (especially didactic) disciplines were linked with the teaching practice.

The practical activities were carried out in selected university elementary schools in and near Olomouc and consisted of two main parts. The first were observation practices. The students were in an elementary school in a specific class, but did not participate in the teaching process.

In their 4th or 5th grade they conducted the teaching practice, which was based on the theory of subject-specific didactics. During the teaching practice the students were involved in the teaching process and after the initial observations and thorough preparation approved by the leading teacher taught a specific lesson in a specific grade. The lessons and preparations were analysed by the teacher trainer.

Eventually, the students participated in the continuous teaching practice in the winter semester in the fifth grade. After this, the students should be theoretically prepared for teaching all subjects in primary school according to the applicable curricular document Framework educational programme for elementary education (MEYS, 2013). The final practice should help them acquire experience with teaching but at the same time assume all responsibilities of a primary school teacher under the leadership of the teacher trainer.

2 Current structure of undergraduate preparation of primary school teachers

According to the profile, the graduates should be provided with the following competences: developmental-reflective, diagnostic, communicative, cooperative, self-reflective, subject-specific diagnostic, educational-research, educational-organizations, managerial, and projective-creative. The graduates should have multidisciplinary knowledge and skills in the areas related to linguistics, mathematics and natural science, national history, music, somatic issues, visual arts, and occupational issues. The graduates should have a broad cultural awareness (including literature, music, visual arts, and drama). The graduates have the skills and knowledge that contribute to health promotion and optimal prevention of undesirable effects of technology, understand and are able to teach their pupils in the area of social changes, resolve educational problems, and assess their educational activity. They have the capabilities necessary for creative, self-reflective, and self-regulatory development (Akreditační spis, 2018).

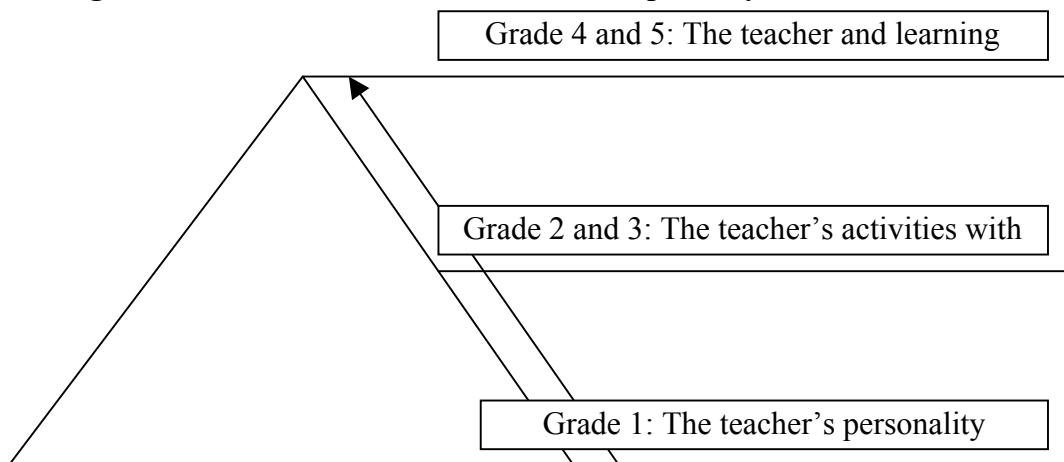
To achieve the highest possible level of graduate competences, the course of study must be of an intensifying nature and theoretical and didactic courses need to be systematically related to practice.

The structure of the study is set in line with the modern principles reflecting the transformation of higher education (Spilková, Hejlová, 2010). They include the following:

- Integration of education: within educational disciplines, between education and psychology, between a course and its didactics, general didactics and course-specific didactics, theoretical study and practice;
- Personality development, cultural awareness, and general level of education;
- Intensifying system of teaching practice throughout the whole period of study with an emphasis on the teaching activity and its reflection;
- Activity methods;
- Individualization of study and personal specialization.

In order to achieve the graduate profile, the study includes a logical content line. The underlying philosophy is the current concept of primary school, and the core of the study is in educational and psychological disciplines, course-specific didactics, and practice. The whole study is designed as a flexible system that allows the students their own professional development and provides space for their specialization.

Diagram 1: Content of the course for future primary school teachers



Source: *Akreditační spis*, 2018

In the first year the students are encouraged to develop their own idea about their own teacher identity. In the second and third years, emphasis is on the deepening of self-awareness in the role of the teacher. In the fourth and fifth years, the core of undergraduate preparation is the reflection of the partial and final level of the adopted professional competences in a dynamic context. The final product of the system of undergraduate preparation is the individual teacher identity.

In the context of the reflective attitude to education (according to Lukášová-Kantorková, 2003), i.e. focusing on the connection of theory and practice, teaching practices copy the content structure of the study. In the course of the five years, from the first week of study, teaching practices are offered in three categories:

- Classroom observation practice;
- Micro-teaching sessions;
- Own teaching practice.

The practices are part of the following system.

Table 2: Arrangement of teaching practices from the 2019/2020 academic year at the Faculty of Education, Palacký University Olomouc (CR)

Grade	Term	Subjects	Teaching practice
1.	W	-	Observation practice in primary school in a fully organized urban school, rural school, or school with few classes
1.	W	Communicative competence of the teacher	Student micro-teaching session in primary school (approximately 5 minutes)
1.	S	Seminar on the didactics of primary education	Observation practice to identify didactic categories
2.	W	-	Observation practice in schools with few classes
2.	S	Development of the primary education curriculum	Observation practice and micro-teaching sessions in primary school
3.	W	Didactics of elementary reading and writing	Observation practice and micro-teaching sessions in the first grade of primary school
3.	S	Didactic seminar: work with primary school pupils with special educational needs	Observation practice in primary school with a focus on the elements of integration and inclusion
4.	W	-	Continuous teaching practice including teaching sessions and reflection (1st to 3rd grade of elementary school)
4.	S	-	Continuous teaching practice including teaching sessions and reflection (4th to 5th grade of elementary school)
5.	W	-	Continuous teaching practice including teaching sessions and reflection
5.	S	-	Continuous teaching practice: 5 weeks fully organized school + 3 weeks school with few classes
5.	S	-	Teaching practice including a research theme for the purposes of the master's diploma thesis

3 Lesson Study: foreign inspiration for modern undergraduate preparation of future primary school teachers in the Czech Republic

The development of the new structure of teaching practices was associated with the modernization of the content.

There are several foreign models that could inspire Czech education. The first is Learning Study—method of professional teacher development in two aspects—structuring of the self (self-image, self-evaluation, cognition, task perception, future perspective) and grounding of the subjective educational theory (Lundgren, Schantz Lundgren, Kihlstrand, 2015). The second possibility is the Design Experiment method, which is based on scientific work (Brown, 1992). However, both methods require longer practical experience. The third method tested in the system of Czech education was described in 2008 by M. Chvál, D. Dvořák, K. Starý and K. Marková: Design-Based Research. Its effectiveness was tested on an experiment as part of continuing teacher education. In 2010, a team from the Institute for Research in School Education Brno tested the application of the 3A methodology (annotation–analysis–alteration of classroom situations). This methodology is based on the premise that practice is the basis of theory, and theory should be practically oriented. Emphasis is placed on the cooperation between educational theory (or research) and practice and on the quality professional teacher’s conduct. Special attention is on the content of education and its didactic transformation in classes (Slavík, Janík, Jarníková, Tupý, 2014). However, this methodology focuses on the reflection and study of educational reality as such from the perspective of the researcher, not the student! This is a method of basic research. The results of the research interpretations are implemented in the educational offer for students. All three methods are very interesting and certainly useful, but for our purposes in undergraduate preparation of primary school teachers we used the Lesson Study method.

Description of the Lesson Study method

Lesson Study is a relatively new element in the system of Czech education. However, this method was developed in Japan already in 1870 and represents a specific form of the teacher’s action research. It focuses on the teacher’s targeted professional development on the basis of peer support (Šrámková, 2017). This method is actively analysed by foreign research studies. In the past 10 years, there have been over 300 studies globally. However, most of them are qualitative—often case studies in a limited regional environment without generalization. In most cases, focus is on the training of mathematics and natural science teachers, but the principle of the method is not subject-specific. In educational practice, this method is mostly applied in the USA, UK, South America, Southeast Asia, and Australia (Vondrová, Cachová, Coufalová, Krátká, 2016). In the context of the current concept of Czech education emphasising the inclusive approach, this method allows targeted monitoring of weak learners and together with other teachers searching for the best educational procedures to increase the effectiveness of education (Šrámková, 2017).

In the application of this method the teachers collaborate—they choose the objectives together and define the issue that they want to study. Together they select the strategies to achieve the set objectives and together they evaluate the results of education (Fernandez, Chokshi, 2002; Fernandez, Yoshida, 2004; Stewart, Brendefur,

2005; Cerbin, Kopp, 2006; Stefanek, Appel, Leong, Mangan, Mitchell, 2007; Šrámková, 2017).

This method of professional development has not been used extensively in the Czech Republic. However, there are sporadic projects that focus on the application of this method. For example, the following projects were implemented: “Competence III” aimed at Lesson Study activities in 2014 and 2015 (Vondrová, Cachová, Coufalová, Krátká, 2016) or “Helping schools succeed” in which an experiment was performed in 2016 (Šrámková, 2017).

According to C. C. Lewis and J. Hurd (2011), Lesson Study is not specifically defined because it differs by the objectives it pursues. However, the common features are team planning, observation, and analysis of learning and its management. The procedure is as follows (Fernandez, Chokshi, 2002; Fernandez, Yoshida, 2004; Stewart, Brendefur, 2005; Cerbin, Kopp, 2006; Stefanek, Appel, Leong, Mangan, Mitchell, 2007; Lewis, Hurd, 2011):

- Team development of a detailed lesson plan;
- One of the team members is responsible for the teaching process according to a predefined plan;
- Other team members observe the lesson;
- Then the team share their knowledge gained during the observation and a discussion takes place;
- This may be followed by a revision of the lesson plan and implementation in a different class, where the team again observes and evaluates the results;
- The outcome is a written report containing information on the students’ learning.

This is an action research that addresses an educational problem in the real practical environment and is built on a plan of changes, collection of information, reflection, and practical activity. In addition, this method includes elements of the participant, cyclic, qualitative, and reflective approaches to action research (Hendl, 2016).

This method helps develop the teacher’s educational knowledge—relating especially to the content, curriculum, and the learning process (Hart, Alston, Murata, 2011). However, the method does not only focus on the skills of a single teacher but monitors the effectiveness of the strategies in the achievement of the set objectives of education. The responsibility for the whole lesson project is on the entire team involved in its development (Šrámková, 2017).

A significant element in the success of Lesson Study is classroom observation. In this context, an important fact is that the team of teachers who collaborated on the preparation of the lesson focus on the predefined aspects during classroom observation. As a result, the teacher who actually teaches the lesson is in a safer environment compared with traditional observations where the preparation and delivery is the responsibility of the teacher (Vondrová, Cachová, Coufalová, Krátká, 2016). Another essential element is reflection. We are committed to a qualified educational reflection including the objectives and content of education, methods of work, and pupils’ comprehension. There are two types of reflections: individual reflection (by each member of the team) and group reflection, in which individual reflections are discussed.

Lesson Study should develop the teachers' reflective skills ranging from description to assessment and interpretation.

The positive effects of the method are as follows (Stewart, Brendefur, 2005; Fernandez, 2009; Lewis, Hurd, 2011; Lundgren, Schantz Lundgren, Kihlstrand, 2015):

- General development of the teacher's professional competences;
- Significant effect on the didactic and psychodidactic competence;
- Improvement of the learning process ;
- Support of peer learning.

The concept of three-dimensional professionalization of the teaching profession (Minaříková, Janík, 2012) includes the development of the whole structure:

- Professional perception on the basis of which the teacher solves educational situations;
- Professional knowledge, which is a synthesis of theoretical knowledge and experience and leads to the acquisition of further knowledge;
- Professional conduct, which is a set of practices carried out by the teacher.

At the Faculty of Education, Palacký University, this method has been analysed since 2017 in an effort to modernize the content of undergraduate preparation of future primary school teachers in the area of teaching practices.

The main starting points were as follows:

1. Why is Lesson Study important in our educational environment?

Lesson Study represents a special tool for a comprehensive preparation of undergraduate students for their further profession. In the Czech Republic the method is a complete novelty and provides an opportunity to fulfil the visions of the education policy as set out in the Strategy for Education Policy of the Czech Republic until 2020, the purpose of which is to increase competitiveness and employability. Using this method, future primary school teachers are actively focused on practice and its conditions in the real environment.

2. What is the benefit of the link between theory and practice?

The application of this method supports a closer connection between theory and practice thereby improving the quality of undergraduate preparation (not only in the area of practice but also understanding the theoretical background, which is a precondition for university education). Over the past 30 years, a number of changes have been carried out in the area of education. There have been three waves of change—transformation of the Czech school into a democratic system (after 1989), integration (a big wave of integration took place in 2008), introduction of the inclusive approach by means of an amendment to the Education Act (1 September 2016). This suggests that Czech education is vibrant and dynamic. In order to achieve high-quality student preparation, suitable and modern tools must be used in the context of the teaching practice. The Lesson Study approach is an instrument that flexibly responds to the changing conditions of the teaching practice.

We believe that the application of the Lesson Study method has a great potential. Since 2017, we have been actively involved in analysing the method and thinking about possible ways of its implementation in undergraduate preparation in Teacher

training for primary schools. So far, we have focused on experience gained by our foreign partner universities and on formal application possibilities in the Czech Republic. Now the period of implementation comes.

Conclusion

The objective of the present study was to outline the concept of undergraduate preparation of future primary school teachers at the Faculty of Education, Palacký University Olomouc. The paper is based on thirty years of development, during which various approaches to the modernization of the entire study were discussed. One of the key elements is the system of teaching practices—both in terms of structure and content. The paper also outlines the potential of the Lesson Study method, which has so far not been used extensively in the Czech Republic and which we believe is a very interesting and inspiring method in undergraduate practice.

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