**The Quality of
Elementary School Education:
Teachers' Qualifications
and Competences**

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Editorial

The leading topic for the 7th issue of the *Journal of Preschool and Elementary School Education* is **The Quality of Elementary School Education: Teachers' Qualifications and Competences.** I would like to begin the editorial of this issue with a quote: "The school has always been and will be as good as the teacher … No reform redeems school unless the teacher identifies with it" (Čechová M., 2012. *Řeč o řeči*. [A Talk on Language], Prague: Academia, p. 254).

The generally accepted argument that the interdependence between the quality of education in different types and stages of schools, and the quality of a teacher's expertise, undoubtedly holds true as well for elementary education. The aim of this issue of the *Journal of Preschool and Elementary School Education* is to enrich the educational science discourse through the discussion of the latest research findings on the relationship between the quality of undergraduate and postgraduate teacher training and the quality of elementary education. The above-mentioned relationship is approached in several ways in this issue.

With respect to the theoretical considerations on the desirable expertise and professional competences of the teacher, it is important to define the key concepts in the first place. The introductory article of this issue (E. Jaszczyszyn, A. Cichocki) provides a theoretical analysis of key concepts like competence and a teacher's qualifications, while confronting several typologies of professional competences. Moreover, the authors present an inspiring perspective on the development of professional competence, especially the "*Four stages of competence*" theory, which carries implications regarding the creation of a teacher's professional development model. According to the authors of this paper, "*there is an urgent need to remodel the teachers' developing system – concentrating on strengthening the potential, present in the idea of professionalization of teachers in terms of teaching standards.*"

The planning of a teacher's professional development cannot fail to correspond to the historical continuity, as well as to the results of a critical analysis of past experience, with respect to a teacher's undergraduate training. The next paper (Ľ. Belásová, M. Portik) thus deals with an analysis of the historical context of elementary school teacher training. Here, the main focus is on the development of undergraduate training in the former Czechoslovakia and Slovakia, especially at the University of Presov in Presov. Based on a comparative analysis of the development of study programs, the paper provides a critical reflection on the findings and a prediction for further development in undergraduate elementary school teacher training.

The importance of undergraduate elementary school teacher training, with respect to ensuring the quality of elementary education, is the topic of the next paper (L. L. Olteanu). The author highlights the role of a teacher's psychological training, mastery of main theories and models of mental development and learning, which is a precondition for the understanding of a child's developmental specifics and individuality.

One of the preconditions that is shaping the quality of elementary education is the developmental level that the child achieves with the help of preschool teachers. In elementary as well as preschool education, the interaction between the teacher and children is considered a vital factor in effective education and a child's development. The paper, authored by R. Engels-Kritidis, focuses on an analysis of the concept of "*good/quality kindergarten teacher*", supported by empirical data.

The paper by M. Łobacz develops the issue of school quality and competences with the aspect of social function. The author's view is that the function of the school is not just to educate, but also to provide support in cases where there is material deprivation of the child. The Social and psychosocial competence of the teacher is of great importance here. The paper by I. Rochovska highlights the need for diagnostic and intervention competence in preschool teachers. Another particular phenomenon in preschool education is educational play as a means of acquiring complex and interdisciplinary knowledge by a child. In her paper, G. Ivanova presents the implementation and the results of the program

"*The World in Games*", while tackling the important professional competence of designing and effectively organizing educational units.

The reviewed publications in this issue point at further aspects of a teacher's professional competences. An awareness of the latest research findings in the educational sciences plays an essential role in the development of the professional educational competences of elementary school teachers. The publication by D. Klus-Stańska (ed.) that is reviewed in this issue presents the primary research findings in the field of elementary education in Poland. With regard to the teacher's IT-media competence, the latest didactical challenge is the use of digital geospatial and geo-information technologies (reviewed publication of A. J. Milson, A. Demirci, J. J. Kerski).

This brief outline of papers published in the current thematic issue of the *Journal of Preschool and Elementary School Education* implies that the concept of a teacher's professional competences, as well as their acquisition in undergraduate and graduate teacher training, is a dynamic and multi-dimensional phenomenon. Despite national specificity with regard to the extent, structure and curriculum of elementary education, the relationship between the quality of education and the quality of undergraduate training is a universal research topic for basic as well as applied research. Moreover, the universal character of research problems provides space for comparative analyses and the international exchange of expertise, while creating new perspectives in order to strengthen the internationalization of scholarly discourse in the given field of study.

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Articles

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Teacher's Competences – Prospects for Development and Professional Training

Introduction

The conclusions of the latest research findings and many years of discussion on what constitutes a competent teacher, show that this issue is not well understood. Such gaps are evident in, inter alia, analysis regarding the issue of "teaching as a vocation" versus "no one is born a teacher" and the consequences of adopting one of these extreme options especially for beneficiaries of the educational system. Terminology and practical proposals based on pedagogical, psychological and sociological theories or theories of human resources management seem to bring us closer to an agreement on the issues between aforementioned professionals. According to Kwaśnica, one should not forget though, that the competences required for the teaching profession "are always incomplete, forever insufficient and constantly remain in motion, development, constantly requiring changes" (Kwaśnica, 2003, p. 294).

Defining competences

A competence – means a proper scope of knowledge and skills, expertise, "to know one's stuff", being competent. The concept of competence is interpreted in many ways in pedeutological literature. Legal sciences and organization and management theory might be a significant inspiration for teachers.

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From the legal sciences point of view, this term is understood as the scope of decision making powers granted to an individual. In this approach, a person holding a public post or representing an organization makes decisions within his granted powers, in accordance with his competences. In such a case, the competences are identified as the powers associated with holding a particular position or performing a function. In this context, the competences become the synonymous with power, which is gained thanks to the decisions of other people, made on the basis of established acts and regulations of law, but not necessarily deriving from the individual's extensive knowledge, skills and abilities.

In contrast, in the case of management science, the concept of competence mainly refers to the possession of present, interdisciplinary knowledge in a particular field and necessary skills, which enable the proper performance of one's duties and tasks, ensuring the effective implementation of the objectives of a given organization. It can be argued that the concept of competence is a reflection of professionalism. Competences describe a number of reactions and behaviours of people in specific work-related situations. They are seen as a tool which triggers intellectual processes, the ability to think and use one's knowledge and experience, causing an adequate response to a situation. Competence is the ability to effectively use a person's knowledge, skills, capabilities, system of values and personality traits in order to achieve aims, results and standards of performance expected from him because of his particular position in an organization (Walczak, 2010, p. 6–8).

In the opinion of Pocztowski (2003, p. 153), competence is a term covering "general, permanent human characteristics, forming a cause-and-effect relationship with significant or above-average effects he has achieved in his work, which have a universal quality".

Competences are treated as higher-order skills, complex personality traits. Professional competences are defined by the synonymous terms: efficiency, ability, qualifications, powers, "worthiness", capability, preparedness. The possession of these competences determines whether a person can be considered capable of performing speceific tasks or operating at a certain level. A competent teacher is a person perceived

through a number of his personality traits to be fit for performing different aspects of his role. Competences are created as a result of integrating knowledge with a large number of small skills. The competence is expressed by the ability to transfer knowledge and skills to new situations within a task situation. It also includes work organization and planning, readiness to implement innovations and the ability to cope with unusual tasks; those are also personality traits indispensable for effective cooperation and collaboration (A to Z Open training, 1997).

The nature of the teaching profession, as well as the multitude of teaching specialities, make it impossible to provide a full description of the competences needed in a teacher's work (Kacprzak, 2006, p. 51), particularly in a situation where, all too often, competences are irresponsibly equated with the professional qualifications of a teacher. According to Denek (2012, p. 29), a teacher's qualifications come down to his competences. However, qualifications relate to whether a teacher can pursue his profession, which means, whether he has completed his education, holds a diploma and whether he possesses the proper knowledge and skills. Qualifications are part of the competences which relate to the ability to make use of one's qualifications (Kacprzak, 2006, p. 47, Gawrysiak, 1998).

Also Oleksyn (2001, p. 227) claims that the concept of competences is broader than the concept of qualifications, because qualifications do not include the ability to perform effectively. **Qualifications** are determined by the level of education attained, as proved by a proper diploma, and the appropriate skills and abilities needed to perform a specific job or tasks. **Competences**, however, are a set of behaviours that are the sum of knowledge, skills and attitudes, which themselves are a function of professional experience with occupational activity, work environment characteristics and the stage of one's working career. In contrast to qualifications, competences are not given once and for all, they are subject to updating, and in order to be developed, they require newer and newer experiences (Kwiatkowski, Symela, 2001). Qualifications are gained at schools, but competences through professional practice. Without practice and personal teaching experience, one cannot comment on the professional competences of a teacher (Gawrysiak, 1996, p. 51).

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Teaching competences will affect changing functions and professional roles of teachers. "A teacher will no longer be, as he used to be, the depositary of expertise but his role will diversify and enrich. Although his main duty will remain a transfer of knowledge, he will also be required to explain the aims and the meaning of the act of education, showing ways, creating collective dynamics in groups entrusted to him, continuous assessment of his students, but also evaluation and preparation of repertory of sources of knowledge" (Mayor, 2001, p. 395). Then teachers' competences will consist of: mastery of specific knowledge, the knowledge of his students and the capability of creating an education-friendly environment and controlling it.

To an even greater extent than in the past, the teacher's role cannot be limited to the transfer of knowledge. Meaningful educational reports in recent years (e.g. *Education – there is a hidden treasure*, a report for UNESCO under leadership of J. Delorsa,1998; F. Mayor, *The future of the world,* 2001; *Teaching and learning. Towards a learning society.* White Book of Learning and Excellence,1997) indicate new requirements for the teaching profession:

– apart from imparting basic knowledge, teachers are increasingly expected to help young people achieve independence in learning, more through the acquisition of core competences than by learning it by heart;
– they are required to abandon *ex cathedra* teaching models for a more constructive approach focused on cooperation, involving facilitating the learning process and class management;
– these new functions require teachers to be familiar with various styles and teaching methods. More and more often classes are made up of young people from different backgrounds, having different abilities and of different degrees of disability;
– teachers are required to make use of opportunities offered by new technologies and to answer the need for individualization of learning;
– these changes require teachers not only to acquire new knowl-

edge and skills, but also to constantly develop them. It is therefore necessary to provide teachers with high quality basic pedagogical education and a coherent process of continual professional development, so that they will be knowledgeable about the competences required for a knowledge-based society;

– as is the case in any modern profession, teachers are also responsible for continual deepening of their professional knowledge through reflection, scientific research and systematic engagement in the ongoing development of their professional career (Announcement, 2007).

Typologies of teaching competencies

The nature of the teaching profession, as well as the multitude of teaching specialities, make it impossible to provide a full description of the competences needed in the teacher's work (Kacprzak, 2006, p. 51). Among foreign studies, it is worth quoting an original approach to the key competences of a teacher by Kyriacou (1991) and by Průcha (2002). The classic Polish typology of teaching competences is presented in the work of Kwaśnica (2003), Dylak (1995), Strykowski (2003) and Szempruch (2013). Atomization of this issue is noticeable, as well as attempts to fill new fields of teacher's work with new content. These include studies on emotional, empathic, leadership, praxeological, therapeutic and social rehabilitation competences of a teacher.

The most common division includes:

1) **factual competence**, relating to the subject taught – a teacher is an expert and a subject counsellor;

2) **didactic and methodological competence**, relating to a teacher's and student's didactic experience, which includes methods and techniques of teaching and learning, organization of activities, designing classes and teamwork – a teacher is an expert and didactic counsellor;

3) **educative competence** relating to different ways of influencing students – they include communication skills, making contacts, solving problems specific to a particular age group – a teacher is an educational and life counsellor (Taraszkiewicz, 2001, p. 175).

Components of professional competence according to Kyriacou (1991) include:

1) **Specialist, subject-related competence** (scientific basis of particular subjects);
2) **Psycho-didactic competence** ("create appropriate conditions for learning – motivate to learn, activate thinking, create friendly social, emotional conditions and working environment, guide students' learning processes – individualize them by taking into consideration time, pace, scope, degree of difficulty, interpret the content of teaching, basis of individual areas of expertise due to students' characteristics corresponding to their age […]");
3) **Communication competence** ("to communicate not only with children, but also with adults – parents, colleagues, superiors and other social partners of the school");
4) **Organizational and leadership competences** ("to plan and arrange actions, to propose and maintain a certain order and system");
5) **Diagnostic and intervention competences** ("to check how a student thinks, feels, behaves and why, what are the reasons for that, what are the student's problems, how can he be helped");
6) **Counselling and advisory competences** ("particularly in relations with parents");
7) **Competence to reflect upon one's own actions** ("I and my actions as a subject of analysis, the ability to draw conclusions from recognizing phenomena, modification of own conduct, approach and methods").

The areas of key competences of a teacher, according to a proposal by Průcha (2002, p. 194–201) include: (a) planning and preparation of classes,

(b) giving classes (c) directing lessons (class management), (d) class climate, (e) discipline, (f) students' performance assessment (summary and in terms of format), (g) reflection upon one's own work and evaluation (in order to improve it).

On the other hand, in the Netherlands, de Jong divided competences into: communication, pedagogical, specialist and didactic, organizational, cooperation with parents and other teachers, in terms of reflection and professional (De Jong, 2008, p. 27–32).

Kwaśnica (2003) based the division of a teacher's competences on the concept of two so-called rationalities (human experience builds up in two areas of meaning): in the area of practical-moral knowledge and in the area of technical knowledge. On this basis, he proposes the following division of a teacher's competences:

1. **Moral-practical**, among which the following can be singled out:

   – interpretation competence, which means the ability to relate to the world in an understandable manner,
   – moral competence, which means the ability to undertake a moral reflection,
   – communication competence, which means the ability to maintain a dialogue with others and himself;

2. **Technical competences**, which include:

   – postulate competence, which is defined as the ability to support students treated in an instrumental manner and to identify with them,
   – methodological competence, constituting the ability to act according to rules which determine the optimal order of actions,
   – execution competence, understood as the ability to choose the means and to create conditions for achieving the objectives (Kwaśnica, 2003, p. 298–302).

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Dylak (1995, p. 38–39) divides teacher's professional competences into three groups, as follows:

1) **Basic competence**, allowing teachers to communicate with children and co-workers;
2) **Necessary competence**, without which a teacher would be unable to perform his professional duties in an effective way – working efficiently; it includes interpretation, self-creative and realization competences;
3) **Desired competence**, which may be, but does not have to be, present in the professional profile of a teacher; it includes interests and skills related to sport, culture, playing musical instrument, etc.

On the other hand Szempruch (2013, p. 103–111), in a detailed characterization, indicates precisely the necessary teacher's competences:

1) **Interpretation-communication competence –** which is expressed as the ability to understand and definine educational situations and as the efficiency of communication behaviours (both verbal and non-verbal).
2) **Creative-critical competence** is the ability to create something new and original, offers the potential to develop creativity in their students. This competence represents innovation and efficiency of a teacher's work.
3) **Collaboration competence** – the effectiveness of the pro-social behaviour of a teacher and efficiency in the integration of a group of students and other educational subjects.
4) **Pragmatic competence** – represents a teacher's efficiency in the planning, organization and execution of educational processes.
5) **IT-media competence** – represents the ability to use information and communication technology to improve educational processes.

The position of Denek (2012), in a debate on teachers' competences, is significant because it is based on an analysis of pedeutological literature and his own scientific research, and presents a wide spectrum of possibilities and necessities in this matter. The author writes „It's about competences: didactic-education, referring to general knowledge and occupational counselling, psychological (of general, developmental, educational, social and learning psychology); cognitive; research; creative; innovative; methodological; philosophical (in particular axiological and ethical); ethical; interpersonal; artistic; aesthetic; social-civic; family; ecological; religious studies; organizational; economic; European – confirming humanistic values (ideas of: truth, goodness and beauty, freedom, justice, tolerance, democracy, respect for human dignity, respect for individuality, preservation of inheritance of religion and culture, European identity); media-information-technical; tourism; self-education" (Denek, 2012, p. 29–30).

Perspective of development

The way in which a teacher does his work depends on the level of integration of his personality traits with his acquired knowledge. "A good teacher" should have a wide range of qualifications, which, in simple words, may mean possession of: a) personality traits, attitudes and beliefs as well as b) pedagogical knowledge and skills. As part of a broader perception of professional competences we accept Igvarson's holistic approach (1989, p. 1006–1031), according to which a competence assumes possession of individual traits and attitudes as well as one's own skills and knowledge, which develop as a result of one's own work.

If we take as an object of the observation professional behaviours, then, according to Jaszczyszyn, (2014, p. 241–249) it is possible to analyse them and to create individual teacher profiles. Questions which researchers are interested in concern, among other things, types of behaviours which may be associated with "successful teaching" or types of attributes which an effective, competent teacher has. Considering competences in the

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context of a particular concept of a man, their different essences and types are stressed as well as the extent of their meaning (Dudel, 2013, p. 16–17).

While reflecting on learning and improving, we wish to recall Holt, who thinks that "learning occurs inextricably with experience, in the course of real, authentic interpersonal meetings, in which no one plays any roles and puts on any masks". When we do something for the first time, it usually does not work out. However, by making another attempt – imitating good models, taking the advice of more experienced people and by practising, we achieve a state at which we are doing better (Holt 2007, p. 39). This never-ending process is described by models of human development and learning, based on "Four stages of competence" theory (Jaszczyszyn, 2012, p. 259–269).

Noel Burch, an employee of Gordon Training International (GTI) in the 1970's, developed the „Four stages of competence" theory, initially described in literature as „Four stages for Learning Any New Skill". We owe the model of human development and learning to this theory. It is assumed that this process always runs in four stages. What is important for the process of becoming competent are decisions which can be made by people in relation to the particular stage.

Stage I. Unconscious incompetence ("I am not aware that I do not know") – at this stage a person is not aware that he cannot do something, that in a particular area he does not have any experience and he is completely unaware that a particular skill or competence exists. However, in a particular situation he discovers himself (or somebody makes him aware of) the area of his ignorance, lack of competence or lack of skills. This may cause the person to be indifferent or trigger anger or curiosity (Taraszkiewicz, Rose 2006, p. 29). Only the last possibility, though, motivates a person to identify the situation and to make an effort to learn, which means stepping into the second stage. It is worth noting that people qualifying for the first stage make up the biggest group, and the most difficult to convince.

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[1]   John Holt is a close co-worker of Iwan Illich, a participant of education debates on building up societies free of schools.

Stage II. Conscious incompetence ("I am aware that I do not know, but …") – at this stage a person begins to realize that there are things he knew nothing about before, that there are skills which can be useful in his life, skills in which he is interested and would like to acquire. A person at this stage begins to do things, but does them clumsily, with difficulty, and new activities require very high concentration during their execution. At the second stage, a person experiences both unpleasant states (e.g. I do not understand, I failed) and pleasant ones (e.g. I do understand, I can). At his own pace, a person experiencing changeable states steps into the third stage. This stage is considered to be the most difficult one. It is here where learning starts. But also at this stage, people give the largest number of arguments against learning (naming reasons which make it impossible for them to learn something new). This is also the stage at which the majority of people make the decision to give up.

Stage III. Conscious competence ("I am aware that I know") – at this stage, a person gaining competences and skills starts doing things more and more smoothly, it requires less effort than at the second stage, but it still demands concentration and thought on how "this" should be done. Still, there is no question of automatism. This is a phase of practice and improvement of skills. At this stage, a person must practise a lot because practice is the most effective way to move on from this stage to stage four. Motivated and persistent individuals move on to the fourth stage (Taraszkiewicz, Rose, 2006, p. 29).

Stage IV. Unconscious competence ("I am not aware that I know") – this stage allows a person to make use of acquired skills without the necessity of concentration on performed tasks (habits). After reaching this stage, the teacher is able to make use of a number of skills at the same time and teach others.

The improvement process itself should be treated as a part of the motivation system. The methods of a worker's stimulation assume

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putting strong emphasis on interpersonal relations and social skills development. They also allow for the improvement of professional skills.

The prospect of improvement

The Department of Education and Training (2004, p. 6) pointed out in its document some professional competences which teachers should demonstrate at all stages of their professional careers. It is therefore expected that teachers will collaborate with others with ease, will engage in activities defined as "in the students' best interest", communicate efficiently, represent ethical conduct, innovation and the tendency towards integration of students (inclusion), present a positive attitude to students and thoughtfulness. Such thinking about competences is confirmed by Lemov (2010), who, thanks to research carried out among teachers, defined their needs to acquire/strengthen their professional skills. He defined them as the need for expertise, skills training and exchange of experience with other teachers. This indicates that the need among teachers does exist, which can be called "the need to have a perspective of development". It can be met through the participation of teachers in three different types of training: (1) preparing for work in the profession; (2) held in course of teacher's work (preparing or developing skills to work in a particular position); (3) serving re-qualification of a teacher (a change of position or profession).

From the point of view of the beneficiaries of national education systems, the efficiency of such projects should be subject to assessment. Professional development and improvement can be characterized in a dynamic way, combining the model of an individual's development and learning presented in this analysis, with the efficiency of training which is given at three levels (Łagan, Gontarz, 2009, p. 19–20).

The first level is the level of implementation, which means a job well-done. Training at this level is designed to bring an effect in the form of "catching up with standards". The decision to organize the training is made based on identified gaps in skills or knowledge of teachers, with reference

to established standards. Improvement is based, to a large extent, on the instructions and models given (lectures, talks, demonstrations).

The second level is training which serves to improve the processes and efficiency of work. Participants are put in situations making teamwork easier and which, therefore, motivates them to learn from each other. At this level, activation methods based mainly on interaction are used (discussions, role-plays, tasks to be carried out by subgroups with elements of competition).

Level three is defined as an innovative one. Training here serves to initiate some changes in organization and to prepare workers to implement new methods of operations. Emphasis is put on stimulating cooperation, the exchange of experience, combing skills in order to achieve a common goal, inspiring good practices and rousing a sense of responsibility for the implementation of innovations. Methods focused on starting up processes (engaging participants in preparing the training, best practices sessions, meetings to exchange experience, on-site visits, and social events outside the company, moderated group work, and common analysis of work after completing tasks) are helpful in this course of professional development.

To sum up the issues of working methods with a training group, we would like to refer to the Szczepan-Jakubowska classification (2008). Depending on the goal to be achieved by the training, Szczepan-Jakubowska (2008, p. 89) details the group (a) instruction and model delivery methods; (b) activation methods and (c) work aimed at starting up a process (e.g. professional coaching, mentoring, counselling, therapy, consulting).

Liberman and Miller (2001), in order to have the desired influence on changing the way teachers think and act, suggest applying the following forms:

- forming teachers' groups – informal, being the driving force of changes;
- writing of the curriculum by teachers and from teachers' initiative;
- implementing and financing teachers' research projects (mainly in the collection and analysis of data);

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- – observation of each other's classes – in pairs, usually planned beforehand (video recording, sound recording);
- – conferences in small groups – teachers' meetings in order to discuss individual cases;
- – centres of teaching aids for teachers;
- – participation in external conferences and organizations.

In addition, the following is proposed: improvement based to a greater extent on the school, on work in school, on the workplace.

In our opinion, the most valuable resources available in each school are the teachers. Such an assumption allows us to present the thesis that there is an urgent need to remodel the teacher development system – with a concentration on strengthening the potential present in the idea of the professionalization of teachers (and their assessment) in terms of teaching standards (related to what they should know and be able to do). Furthermore, we support the opinion that the process of training for the profession should be extended. The first university degree would give qualifications (in accordance with the *Regulation on teacher training standards* and the Bologna system), but it would make it possible for a teacher to obtain the position of trainee or contract teacher. However, the next professional promotion would depend on the completion of a second degree, compliant with already possessed qualifications (master's degree) Klus-Stańska, Konopczyński, Krauze, Śliwerski, *An opinion about draft regulation on qualifications required from teachers as of August 5th, 2015, its reasoning and impact assessment* (IA), 2015, p. 8).

Teachers' qualifications are not "closed" properly. In the course of teacher training, one should pay attention to the specificity of educational activities, the nature of this profession, because there is nothing repetitive in it. A surplus of knowledge is something which is needed in education in order to overcome hardships in the profession in the future. A teacher must be equipped with surplus qualifications, so that he can quickly generate new cognitive abilities (Henryka Kwiatkowska at KNP PAN in Szczecin – June 2015) and such an opportunity is created by the procedure and methodology of teachers' professional development.

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Summary

After brief remarks related to the current discourse present in the professional literature on the perspective of the development of competences and professional improvement, this text focuses on ideas which have important implications for their perspective of development and the assessment of the process of professional improvement of teachers, namely (a) building teachers' professionalism, especially for those who are trapped in an increasingly formalized system, based on documents, content of teachers training courses and then in a rigid career path and (b) defining and assessing the standards of the professional development process.

The text ends with the thesis that the most valuable resources available in each school are the teachers, that there is an urgent need to remodel the current system and to concentrate on strengthening the potential present in the idea of the professionalization of teachers (and their assessment) in terms of teaching standards (related to what they should know and be able to do).

Keywords: teacher's competences, development of competences, professional development, perspective of development.

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The quality of elementary school education: teachers' qualifications and competences

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Historical and Contemporary Context of Primary School Teacher Training

Introduction

Preparation, supervision, organization and the results of the educational process are significantly dependent on a qualified pedagogical worker, a teacher. The authors of this paper present a historical and contemporary context of training primary education teachers, which will be documented by a comparison of selected study plans. The authors also deal with significant changes which have taken place in the professional training of future teachers in Slovakia (and the Czech Republic) recently.

1. Who is a teacher?

A teacher is a key category in education. It is a person who provides direct instruction in a school environment and s/he is one of the basic agents of the educational process. Teaching is often labelled a profession, nevertheless, there are some disputes as to whether it possesses all the attributes necessary to be called a profession.

The process of professionalization includes extensive teacher training, i.e. specific knowledge (in the chosen field of study), followed by a professional-quality performance based on the awareness of pupils' knowledge and competence. G.D. Fenstermacher (1990) pointed out the differences between the teaching profession and other professions, and he characterized three specific areas of the teaching profession:

1. area of knowledge – one of the specifics of the teaching pro-
fession is its permanent transmission of knowledge,
2. area of relationships between a professional and a client (teacher
and pupil),
3. reciprocity of effort – the teacher's work success is determined
by the pupils' effort to satisfy the requirements set for them.

There are various characteristics of teachers in pedagogical theory.
According to the authors the most essential are:

➔ **Teacher requirements** focused on particular areas of a teacher's ac-
tivity which can be found in older pedagogical and psychological litera-
ture. They represent an enumeration of what a teacher is expected to do
in the professional area, including a teacher's personal qualities or pat-
terns of his/her desired behaviour. These requirements can paint a pic-
ture of an ideal which can, on the one hand, increase the prestige of the
teaching profession, while on the other hand, can become a source of
frustration for the teacher and society.

➔ **Description of a teacher's professional career**, in which, in accor-
dance with J. Průcha (2007), we distinguish the following stages:

- choice of the teaching profession (motivation to study education),
- professional start (entrance to profession),
- professional adaptation (first steps towards profession),
- professional growth (career),
- professional stabilization or professional migration,
- professional burnout,
- professional conservatism.

The abovementioned requirements are often reduced into these
three stages:
- student of education,
- junior teacher,
- experienced teacher (expert).

➔ **Teacher competences** represent "a set of professional competences and dispositions a teacher should be endowed with to be able to perform his job effectively" (Průcha – Walterová – Mareš 1998, p. 110). Today, there are various attempts of authors to define teacher competencies, all of which try to bring them closer to the content of the training and education of newly qualified teachers (Z. Helus, Ch. Kyriacou, J. Mareš, E. Petlák, J. Slavík, V. Spilková, V. Švec, I. Turek and others). B. Kasáčová's (2006) competency profile divides teacher competencies into three broadly formulated dimensions . The dimensions are:

- competencies aimed at pupils, their basic characteristics and conditions of development;
- competencies aimed at the educational process, further divided into:
  - competencies needed to mediate the content of education, its didactic transformation for the needs of teaching and learning,
  - competencies related to create the conditions of education,
  - competencies related to influence pupils' personal development;
- competencies aimed at a teacher's personal development.

2. Primary education teacher

Compared to teachers at other school levels primary education teachers have a specific position. J. Průcha (2002, p. 23) classifies them as a group of "universalists, i.e. teaching all subjects at the given stage of school". However, we presume that today this is not completely true (it does not have to be true in the teaching of foreign languages, religion, ethics, or sometimes, education-oriented subjects).

The professional activity of an elementary school teacher fulfils the aims of primary education, which is regarded to be the cornerstone of the gradual development of pupils' key competencies. According to current laws, the basic aims of primary schools are formulated as follows:

- to offer pupils rich opportunities for guided knowledge of their closest cultural and natural environment, to enrich their imagination, creativity, and interest in their surroundings,
- to enable pupils to explore their own abilities and possibilities of development, and to enable the acquisition of basic abilities to learn and understand themselves,
- to support pupils' cognitive processes and critical and creative thinking competences through the acquisition of their own cognitive experience and through active problem solving,
- to develop pupils' ability to communicate and understand each other in a balanced way, to evaluate (choose and decide) and also act initiatively with self-control and self-reflection,
- to support pupils' development of intrapersonal and interpersonal competences, especially to enter social relationships openly, cooperate effectively, develop social perceptivity and empathy towards classmates, teachers, parents, other citizens and their cultural and natural surroundings,
- to encourage pupils to tolerate and accept other people and their spiritual and cultural values,
- to teach pupils to assert their rights and, at the same time, perform their duties, and be responsible for their health by protecting and strengthening it.

The main programme aims of primary education are the development of key competences (as a combination of knowledge, competences, experience and attitudes) of pupils on a personally achievable level.

During the course of primary education, the key competences are: communication competences (skills), mathematical literacy, literacy in natural sciences and technologies, competences in the field of digital literacy, ability to learn how to learn and solve problems, personal, social and civil competences, and cultural competences.

3. Beginnings of shaping the teaching profession

The teaching profession is one of the oldest professions in mankind's cultural history. Its beginning can probably be traced to ancient times when schools as institutions for education (in ancient Egypt, India, China, and later in Greece and Rome) required professionally skilled teachers. There is, for example, a preserved writing from ancient Rome *Institutionis Oratoriae Libri* by M. Fabi Quintiliani (1985) recording the experience of Greek and Roman school practice. It says that, even in ancient times, teachers specialized in teaching particular subjects, taking into consideration the differences among pupils regarding their abilities, and the stimulating effect of evaluation.

Teachers in medieval schools were priests and "the teaching profession was part of church education, i.e. teaching took place in cathedral or monastery schools and served as the preparation of clergy" (Průcha, 2002, p. 10). Teachers in medieval town schools participated in spreading elementary knowledge and the "secularisation" of the school system, but the negative side of those schools was life in very modest social conditions.

The appearance of European universities (since the second half of the 12th century) brought not only the spread of knowledge, but also the training of professional educators – university teachers with the degree "Master" (Oxford in 1168, Bologna in 1224, Prague in 1384).

Then, pedagogical theories of distinguished pedagogues appeared (J.A. Comenius, J.J. Rousseau, J. Locke, J. H. Pestalozzi, L.N. Tolstoy and others) and their opinions influenced changes in the understanding of the teaching profession. Several changes influencing the professionalization of the teaching profession have been dated to Comenius' time, some of which continue to exist. Comenius, in his work *Didactica Magna* (*The Great Didactic*), recommended entrusting children to the care and proper training of selected "persons conspicuous for their knowledge of affairs and their soberness of morals. To such instructors of the young, the name of preceptor, master, schoolmaster, or professor has been applied, while the places destined for this common instruction have been

named schools, elementary schools, lecture-rooms, colleges, public schools, and universities" (Comenius, 1907, p. 62). In chapter XXIX, called *Sketch of the Vernacular School,* he suggests further professionalization of the teaching profession based on time and spatial determination of its realisation with a concept of position of teacher.

Theresian educational reforms can be understood as the next important milestone which required changes in teacher training. So-called *Preparandia* (for teachers, established in 1775) offered pedagogical and didactical training in a three-month course. After its completion and a year-long training practice in schools, it was possible to take an exam which guaranteed one's teaching competence. Teacher training in *Preparandia* can be regarded as the beginning of systematic training for the teaching which had the effect of improving the quality of teachers. The length of the courses later extended to two years and the practical part of the training of future teachers became an integral part of the courses.

4. Historical context of university teacher training

University training and education has undergone a long and difficult development, which was completed after the formation of the Czechoslovak Republic (1918). From 1921, the training continued in the form of courses, run as an extension of institutes for teachers. The first private faculty of education dedicated to training teachers originated in Prague in 1929. It was a four-year study program primarily focused on the pedagogical and psychological training of 1st grade primary school teachers. In 1930, state pedagogical academies with quality theoretical courses for future teachers appeared. It was also a period of disputes over the necessity of university education for teachers.

The situation changed after World War II, when faculties of education became a part of university studies. The university teacher qualification for teachers of all levels of the Czechoslovak Educational System was issued in the Decree of the President of the Czechoslovak Republic on

Education of Teachers No. 132/1945 Coll. on October 27, 1945. A year later (April 9, 1946), a decree establishing faculties of education concerning their status and particular tasks took effect. The Faculty of Education at Charles University in Prague was founded in the same year. The further development of university education in Czechoslovakia was affected by complicated long-term processes and changes brought about by the country's socio-political situation.

In 1950, the training of national school teachers moved out of universities and the quality was relegated to secondary school level. Teachers in state schools, as well as teachers of kindergarten, were educated in pedagogical gymnasia beginning in 1950/1951. In 1953, teachers of the 1st stage of primary school were educated at pedagogical schools of secondary school level (again together with kindergarten teachers). In the same year, there appeared two-year higher pedagogical schools for teachers of the 2nd stage of primary schools. Pedagogical institutes (operating in regions) which trained teachers for the 1st and 2nd stage of primary schools were established by the Government regulation No. 57/1959. During that time, the 1st stage was composed of 5 years of primary education and it required a three-year programme for teachers; the 2nd stage was composed of the years 6 – 9 and the programme for teachers took four years. An interesting fact is that the programme in the first two years of both stages of primary school was the same. Pedagogical institutes as such did not have a long lifespan, they ceased to exist after three years, and were replaced by university institutes (in 1962). There was a new possibility to study teaching at the 1st stage of primary school in combination with one more subject taught at the 2nd stage of primary school. This model of teacher training prevailed until the school year 1970/1971.

The year 1964 brought the transformation of pedagogical institutes into faculties of education, which were established either as independent universities (in Czech Republic: Ceske Budejovice, Plzen, Usti nad Labem, Hradec Kralove, Ostrava; in Slovakia: Nitra, Banska Bystrica) or as a part (or branch) of universities (in Czech Republic: Prague, Brno, Olomouc; in Slovakia: Trnava and Presov). University teacher training for the 1st stage

of primary school was lengthened to a four-year full-time course of study, combined with one subject taught at the 2nd stage. This possibility was cancelled in1971/1972, when a single major for teachers of the 1st stage of primary school was introduced. Starting from 1973, it was possible to extend the four-year programme at faculties of education and add a specialization. Students could choose one from the following subjects: Music Education, Visual Art Education, or Physical Education. Starting at the same time, it was possible to study education for the 1st stage of primary school in a five-year extramural form of study. This model prevailed in Slovakia, with minor modifications, until 1989.

Significant changes at faculties of education in Slovakia have been introduced since 1989, and the word limits of this paper do not allow us to systematically analyse the transformation of primary school teacher training in Slovakia in general. Thus, we are going to narrow the topic to primary education teacher training at the Faculty of Education of the University of Presov in Presov.

5. Training of primary school teachers at the Faculty of Education of the University of Presov in Presov (FE UP)

The formation of the University of Presov in Presov, and its separate faculties, has reflected many changes in the modern history of Slovakia. The Faculty of Education, with its 65-year long tradition, has undergone several fundamental changes. FE UP was founded in its contemporary form in 1997, when it became one of eight independent faculties at UP. It is the only faculty of education (in the context of Czech and Slovak universities) that specializes exclusively in complex teacher training for kindergartens, 1st grade of primary schools and special education schools. The faculty is eligible to award all bachelor's, master's, and doctoral degrees in all three study programmes and further education.

The analysis of contexts of training teachers of elementary education at FE UP requires a basic axiom: a good teacher is one of the most important factors in creating a well-educated pupil. In connection with teacher

training, the authors consider it important to deal with the factors which represent a basic part of the training. Reviewing the structure of study programmes throughout the existence of our faculty is interesting and inspiring. However, knowledge of the subjects of study shows only the framework of the fields of knowledge. Understanding the real quality and effectiveness of teachers' work requires a deeper immersion into the specific work of teachers. We assume that it is one of the most demanding tasks which has not been realized yet. To some extent it is substituted for with the fact that we know the qualification structure of teachers, their scientific orientation and publication activities. We also have feedback, in the form of questionnaires, from our students which say something about us, the programme, and the subjects we teach. If we want to think about the quality of our graduates, it is necessary to pay attention to students from their arrival at faculty, through their university education, up to the information received on how they are perceived by their employers in real teaching practice. Another important aspect is the cooperation between FE UP and other faculties and institutions, both in Slovakia and abroad.

To be able to specify the suggested areas it is useful to start with some brief information about the character and function of the 1st stage of primary school, for which our students are trained. Based on the above--mentioned historical context, it is possible to trace four basic aspects: 1) National character which was also reflected by the school attributes: elementary school, people's school, and in 1948 also state school. It was presented by the effort to lead children towards respect for mother tongue, nation, its culture and history. 2) Orientation towards children, respecting their developmental distinctiveness, adapting education contents and methods to their age-related abilities, potential, and their natural point of view. 3) Close interconnection between teachers' teaching and education in family and preschool education. 4) The influence of Europeanization is the consequence of globalisation tendencies in economy and it is significantly projected into socio-cultural sphere. Education towards European dimension is based on knowledge of different cultures, understanding coexistence and diversity which is closely connected with education of children in foreign languages.

The above-mentioned bases have been significantly portrayed in school documents (study plans, programmes, textbooks, curriculum) for this type of school. The last concept change, coming after the Education Act of 2008 was established, has created a two-tiered participative frame model for governing schools by implementing a state educational programme and a school educational programme. This change shows the main principles and aims of state education policy as well as the democratic and humanistic values on which national education is based.

The suggested concept and content bases of the 1st stage of primary school have been crucial for the education and training of future primary school teachers.

6. Study programmes in the context of primary school teacher training

Graduates of teacher training programmes are expected to be real professionals in educational practice. It is typical for the teaching profession (Kosová, 2009) that a professional should act autonomously and that s/he should be an expert in what s/he is doing. Do graduates fulfil these criteria? Were they, and are they, ready for this level of professionalism?

Through the presentation of study programmes (since the establishment of the Faculty of Education in Presov) the authors are going to try to present the strategy of equipping future teachers with important knowledge, competences and overall orientation in their professionalization.

The study programmes (Tables 1 – 5) present an overview of groups of subjects relating to particular fields of knowledge (General Basics, Pedagogy and Psychology, Biology and Paediatrics, Specialized Subjects, Practical Training, Courses, etc.) with associated subjects and the percentage of these fields of knowledge of the total.

**Table 1. Study plan of teacher training for the 1st stage
of primary schools – four semesters.
Academic year 1946/1947**

Group of Subjects	Subjects	% of Total
General Basics Ideological-Political Subjects	Philosophy, History of Philosophy, State Science and Political Education, Czechoslovak and Slavonic History	**16**
Pedagogy and Psychology	History of Pedagogy, General Pedagogy, General Didactics, General Psychology, Social and Sociological Pedagogy, Pedagogy of the 1st Grade (of People's School), Didactics of the 1st Grade, Psychology of the 1st Grade, Pedopathology of Pupils of the 1st Grade, Citizenship Education	**33**
Biology and Paediatrics	School Hygiene, Issues in Children's Medicine, Biology of Pupils of the 1st Grade	**9**
Specialized Subjects	Slovak Language and Literature, Literature for Youth, Russian Language and Literature, Natural Science, Music Education, Visual Art Education, Physical Education, Housework (female students only), Methodology of Elementary Classroom, Special Methodologies, Administration	**34**
Practical Training	Practice in Schools	**8**

Source: Uhlířová, 2013

**Table 2. Study plan of teacher training for the 1st stage
of primary schools combined with English Language, French Language,
German Language, Physical Education, Music Education,
Visual Arts Education, Geography, Natural Science,
Mathematics or Slovak Language – four years.
Academic year 1967/1968**

Group of Subjects	Subjects	% of Total
Political-Educational or Ideologically "Cultivating" Subjects	History of the International Workers' Movement and the Communist Party of Czechoslovakia, Dialectical and Historical Materialism, Political Economy, Scientific Communism, Logic	**15**
Pedagogy and Psychology	Introduction to Pedagogy, Theory of Teaching, Theory of Education with Educational Work Methodology, Selected Issues in History of Pedagogy, School Regulations, Introduction to Psychology, Developmental Psychology, Special Education	**23**
Biology and Paediatrics	Biology of a Child, School Hygiene	**2**

Specialized Subjects	Slovak Language, Mother Tongue with Methodology, Language, Mother Tongue with Methodology for 1st–5th Year of Primary School, Theory of Teaching Writing, Czech Language, Russian Language Methodology, Mathematics with Theory of Teaching, Mathematics with Theory of Figures, Mathematics with Methodology for 1st–5th Year of Primary School, National History with Methodology, Music Education with Methodology, Musical Instrument Practice, Visual Art and Methodology of Writing, Methodology of Physical Education, Methodology of Work Education	40
Pedagogical Practice	Pedagogical Practice (1st Year – 1 week, Orientation Practice), Continuous Practice (2nd Year -/2; 3rd Year -/2; Continual Pedagogical Practice (4th Year – 6 weeks, Pedagogical Practice w. Summer Young Pioneer Camps (2nd Year -/3), Pedagogical Practice in School and Educational Institutions (3rdYear/3)	10
Socially Beneficial and Manufacturing Practical Training	Socially Beneficial Practice, Continuous Manufacturing Practice in Agriculture or Industry	6
Courses	Course of Teaching Techniques, Ski Course, Ice Skating Course, Hiking Course	4

Source: Uhlířová, 2013

Table 3. Study plan of teacher training for the 1st stage of primary schools (single major) – four years. Academic year 1980/1981

Group of Subjects	Subjects	% of Total
Ideological-Political or Ideological Subjects	History of the Communist Party of Czechoslovakia, Marxist Philosophy, Political Economy, Scientific Atheism, Scientific Communism	16
Pedagogy and Psychology	Pedagogy and History of Pedagogy, School Organisation and Administration, Special Education, General and Developmental Psychology, Pedagogical and Social Psychology	14
Biology and Paediatrics	Biology of a Child and School Medicine, Biology of a Child, School Paediatrics, Hygiene and Parenthood Education	5
Specialized Subjects	Mother Tongue, Didactics of the Mother Tongue, Culture of Speech and Spoken Discourse, Literature for Youth with Didactics of Literary Education, Czech Language, Russian Language, Foundations of Elementary Mathematics, Foundations of Elementary Geometry, Didactics of Mathematics with Practice, Didactics of Basic Education about Sciences, National History and a Natural Science, Methodology of Elementary Writing and Reading, Didactical Technique, Foundations of Cybernetics and Programming, Traffic Education, Music Education, Visual Art Education, Physical Education, National Defence Education	40

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Optional Specializations	Music Education, Visual Art Education, Physical Education, Work Education	8
Practical Training	Introductory Pedagogical Practice, Continuous Pedagogical Practice, Pedagogical Practice in the 1st Year of Primary School, Practice in Summer Young Pioneer Camps, Social-Political Practice	10
Courses	Course in Gardening and Technical Work, Winter Course in Physical Education, Ice Skating Course, Summer Course in Physical Education, Course in National Defence Education	7

Source: Uhlířová, 2013

Table 4. Study plan of teacher training for the 1st stage of primary schools (Faculty of Education, Presov). Academic year 1998/1999

Group of Subjects	Subjects	% of Total
General Basics	Foundations of Philosophy and Ethics, Ecology, Introduction to Law, Information Technology, Diploma Seminar	7
Pedagogy and Psychology	General Pedagogy, History of Pedagogy, Didactics, Theory of Education, Creative Drama, Foundations of Preschool Pedagogy, Special Education, Pedagogical Communication, General Psychology, Developmental Psychology, Pedagogical Psychology, Social Psychology (+ elective subjects)	15
Biology and Paediatrics	Biology of a Child and Drug Prevention	1
Specialized and Methodological Subjects	Slovak Language, Didactics of Slovak Language, Theory of Literature, Literature for Children and Youth, Didactics of Literature, Repetition of Secondary School Mathematics, Elementary Arithmetic, Foundations of Algebra, Elementary Geometry, Didactics of Mathematics, Selected Issues in Mathematics, Introduction to the Study of Music Education, Vocal Intonation and Rhythm, Music Education, Playing Musical Instrument, Didactics of Music Education, Pedagogical Interpretation of Musical Works of Art, Didactics of Reading and Writing, Drawing, Painting, Plastic a Spatial Works, Didactics of Visual Arts Education, Introduction to Visual Arts Education, Graphics and Graphic Design, Theory and Practice of Swimming, Theory and Practice of Athletics, Foundations of Sport Sciences, Theory and Practice of Gymnastics, Theory and Practice of Games, Didactics of Physical Education, Anthropomotorics, Rhythmical Gymnastics and Dance, Basic Education about Sciences with Didactics, Natural Science with Didactics, National History with Didactics, Technical Work, Didactics of Technical Work, Gardening Work, Didactics of Gardening Work (+ 28 elective subjects)	68

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Practical Training	Introductory Pedagogical Practice (2 days); 2nd Year – 1 week; 3rd Year – 5 days in the 1st Year of Primary School; 3rd Year – Continuous Pedagogical Practice – 3 weeks; 4th Year – Continuous Pedagogical Practice – 3 weeks; 4th Year – Continual Pedagogical Practice – 80 days	**9**
Courses	Winter Course in Physical Education (6 days), Summer Course in Physical Education (8 days); Course in National History and Natural Sciences (5 days), Course in Landscape Painting (5 days)	**9**

Source: Study Programme 1998/1999, Faculty of Education, Pavol Jozef Safarik University, Prešov

Table 5. Preschool and Elementary Pedagogy – (Faculty of Education, University of Presov). Academic year 2014/2015

Group of Subjects	Subjects	% of Total BA/MA
General Basics	Foundations of Philosophy and Ethics	**3/0**
Pedagogy and Psychology	**BA:** Preschool and Elementary Pedagogy and Psychology, Theory of Curricular and Extracurricular Education and Creative Drama, Pedagogical Communication and the Role of Games, Methodology of Extracurricular Education, Introduction to Special Pedagogy, Preschool and Elementary Methodology and Diagnostics, Developmental and Social Psychology **MA:** Didactic Practicum, Methodology of Pedagogical Research, Educational Psychology, Pedagogical Diagnostics in Primary School	**24/16**
Biology and Paediatrics	Biology of a Child, School Hygiene and Drug Prevention	**3/0**
Specialized and Methodological Subjects	**BA:** Development of Art Expression, Introduction to Literary Studies, Development of Musical Expression, Slovak Language, Formation of the Early Mathematical Concepts, Basic and Rhythmical Gymnastics, Mathematics and Leisure Activities, Dramatic Forms of Literature for Children and Youth, Music Instrument, Language and Literary Education Methodology, Methodology of Visual Arts in Kindergartens and School Clubs, Basics of Athletics, Movement Activities and Sport Games, Educology of Preschool and School Physical Education, Elementary Arithmetic and Algebra with Didactics, Methodology of Music Education in Kindergartens and School Clubs, Basics of Natural-Scientific and National- Historic Studies **MA:** Arithmetic and Algebra with Didactics, Theory and History of Literature for Children and Youth, Didactics of Elementary Reading and Writing, Didactics of Music Education, Didactics of Slovak Language and Literature, Geometry with Didactics, Multicultural Education, Natural Science with Didactics, IT Methodology in Primary School, Didactics of Physical Education, Didactics of Art Education, Methodology of Teaching Mathematics in Primary School, Craftwork Education with Didactics, National History with Didactics	**41/66**

Practical Training	**BA:** Introductory Pedagogical Practice, Practice in Kindergarten I, Practice in Kindergarten II, Practice in Primary School I, Practice in Kindergarten III, Practice in Primary School II, Practice in Kindergarten IV, Practice in Primary School III, **MA:** Practice I, Practice II, Pedagogical Practice in the 1st Grade of Primary School, Practice III	14/18
English Language combined with Preschool and Elementary Pedagogy	**BA:** English Communicative Skills I, II, III, IV; Practical English Grammar in Use I, II, III; English in Kindergarten; Classroom Language Seminar I, II; Very Early ESL Methodology I, II **MA:** English Language Methodology I, II, III; English Communicative Skills I, II, III; English in Primary School Curriculum	27/18

Source: Study Programme 2014/15, Faculty of Education, University of Presov

To highlight the variety and dynamism of changes in particular fields of knowledge in the structure of study programmes Table 6 offers an overview.

Table 6. Percentage of subjects according to the fields of knowledge. An overview of the fields of knowledge in particular academic years

Group of Subjects	1946/47	1967/68	1980/81	1998/99	2014/15 BA/MA
General Basics	16	16	16	7	3/0
Pedagogy and Psychology	33	24	15	15	24/16
Biology and Paediatrics	9	2	9	1	3/0
Specialized Subjects	34	42	40/10	68	41/66
Practical Training	8	16	10	9	14/18

There is an almost 70-year long period between the first and last study programme, and the subjects of study included there show the influence of the social-political situation not only on the value placed on subjects (mainly in the field of General Basics), but also on the approaches to the teaching profession and its professionalization. It is important to emphasize that this type of overview shows us what is implicit in relation

to the quality of the graduate, but the explicit remains "hidden" in the work of every single teacher of these subjects.

The last table (Table 7) offers a summary comparison of subjects and the number of hours of instruction at five faculties of education in Slovakia which train teachers for the 1st stage of primary schools. Below the table there are conclusions drawn from these analyses.

**Table 7. An overview of subjects
offered by faculties of education in Slovakia**

Group of Subjects	Presov		Banska Bystrica		Nitra		Trnava		Bratislava	
	No. of subjects	No. of hours	No. of subjects	No. of hours	No. of subjects	No. of hours	No. of subjects	No. of hours	No. of subjects	No. of hours
General Basics	6	14	5	12	3	7	7	17	9	13
Psychology	7	10	4	12	9	8	2	10	7	12
Pedagogy	19	17	17	19	18	19	12	21	17	34
Σ	32	41	26	43	30	34	21	48	33	59
Didactics of Reading and Writing	1	4	1	5	1	4	1	2	1	1
Slovak Language	10	21	6	24	7	24	6	27	7	24
Mathematics	10	23	5	20	8	20	5	20	4	16
Elementary Studies	7	16	9	19	8	17	6	10	5	14
Σ	28	64	21	68	24	65	18	59	17	55
Music Education	14	20	6	16	9	19	4	17	7	12
Physical Education	13	19	11	16	14	16	6	17	7	17
Visual Arts Education	12	18	8	16	8	16	3	14	5	9
Σ	39	57	25	48	31	51	13	48	19	38
Practical Training	6	17	7	20	6	15	3	10	4	17
Σ	105	179	79	179	91	165	55	165	73	169

Based on a comparative analysis of the study programmes at particular faculties, it is possible to point out the fact that the following tendencies can be seen:

- more significant proportionality between pedagogic-psychological and didactic training on one hand and specialized subjects on the other,
- integration of foreign language education,
- integration of dramatic education into study programmes,
- training in special education,
- strengthening the bond between theoretical and practical training,
- space for alternative pedagogy – pluralistic systems,
- introduction of obligatory and elective subjects – more space for self-study and pursuing individual interests,
- change in the way future teachers are trained: the problem is not in the content – what to teach them, but how and by what means to convey knowledge and educational contents; the way in which the student is prepared significantly influences his future understanding of teaching,
- tendency towards humanisation – if we want to achieve it, students must undergo the changes themselves: they should work in a particular cultural relationship teacher – pupil, or student, in a particular culture of cognitive processes, they should experience different learning environments, e.g. workroom, atelier or places where the creative process is present, where knowledge comes into existence, where critical thought, discussion, cooperation, self-evaluation, and evaluation of others are being taught; this means real methods of problem-solving, projects, learning through own activity, experience, cooperative form of teaching – in this sphere the authors observe considerable shortcomings,
- a big challenge for teachers has been the change from a conservative approach of verbal transmission of knowledge in ready--made form and direct instruction.

The quality of elementary school education: teachers' qualifications and competences

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These aforementioned issues help to generate ideas for further mod-ernisation of elementary education teacher training:

- The training of elementary education teachers is a complicated system of problems requiring dialogue, research, and analysis of findings from teaching practice: it is impossible to follow either a total unification or unlimited autonomy; freedom is a choice but is also a lot of responsibility for creation of various models, approaches, and processes,
- programme and concept openness, innovation, and perspective together with preservation science bases,
- plasticity of means (methods, forms) in teachers' education, fa-miliarization with various alternative processes,
- humanisation of the process of education,
- scientific approach, interdisciplinarity, and integration in creation of study plans; the use of information technologies,
- realization of the great importance of practical training in the process of training future teachers,
- preparation of teachers for "Europeanization",
- preparation of teachers for schools of the future.

7. Instead of conclusion

Instead of a conclusion, we suggest some ideas which could form the basis of future research projects:

- we are a learning society and lifelong learning is our task,
- the quality of education is dependent on the quality of teachers (the quality of teachers directly influences the results of pupils),
- professionalism in the teaching profession,
- teacher's role – what is it and what should it be? – cultivator of pupil's potential, facilitator of pupil's development, professional in didactic transformation of curriculum, diagnostician and per-

former of appropriate interventions, able to reflect on one's own work, able to professionally discuss one's own educational processes, able to cooperate and communicate with colleagues and parents,

- emphasis on the expertise of the profession – teacher as a professional who eases learning and helps to develop pupil's personality,
- model of the so-called "wide professionalism"
- increasing financial investment in school systems and professional growth (further education) – how can we guarantee it?
- reform of teachers' education – is it a real need or only a consequence of political turbulence?

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The quality of elementary school education: teachers' qualifications and competences

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Abstract

The paper concentrates on the historical and contemporary context of the teaching profession. The authors focus on the history and present times of primary school teacher training in the former Czechoslovakia, and in Slovakia, particularly at the Faculty of Education, University of Presov in Presov. They detail important factors which influence the profession – especially socio-political situations, opinions of professionals (experts), the structure of study programmes and strategic planning. They point out that there have been significant changes in teacher training in recent years.

Keywords: teacher, primary education, study programmes, history, present prognoses.

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Psychological Aspects of Teaching in Primary School

Introduction

The educational process has become the dominant response to challenges in all the domains of modern life. The key to a good primary education is the quality of its teachers. Quality education enables people to develop all of their attributes and skills to achieve their potential as human beings and members of society. In the words of the Delors Commission (UNESCO, 1996): "Education is at the heart of both personal and community development; its mission is to enable each of us, without exception, to develop all our talents to the full and to realize our creative potential, including responsibility for our own lives and achievement of our personal aims."

The highest-quality teachers, those most capable of helping their students learn, have deep mastery of both their subject matter and pedagogy (Darling-Hammond, 1997). Research shows that teacher quality is the strongest predictor of student achievement (Sanders & Rivers, 1996; Wenglinsky, 2000). Therefore, teachers need to gain a more comprehensive knowledge of the basic psychological theories. This deeper understanding of students' behavior enables the teacher to help guide them through the educational process. Understanding development, or the long-term changes in growth, behavior, and knowledge, helps teachers to have appropriate expectations of students, as well as to keep students' individual diversity in perspective. From kindergarten through the end

of high school, students double their height, triple their weight, experience the social and hormonal effects of puberty, and improve basic motor skills.

Major theories and models of learning

Several ideas and priorities affect how we teachers think about learning, including the curriculum, the difference between teaching and learning, sequencing, readiness, and transfer. The ideas form a "screen" through which we understand and evaluate whatever psychology has to offer education. As it turns out, many theories, concepts, and ideas from educational psychology *do* make it through the "screen" of education, meaning that they are consistent with the professional priorities of teachers and helpful in solving important problems faced in classroom teaching. In the case of issues about classroom learning, for example, educational psychologists have developed a number of theories and concepts that are relevant to classrooms, in that they describe at least *some* of what usually happens there and offer guidance for assisting learning. It is helpful to group the theories according to whether they focus on changes in behavior or in thinking. The distinction is rough and inexact, but a good place to begin. For starters, therefore, consider two perspectives on learning, called behaviorism (learning as changes in overt behavior) and constructivism (learning as changes in thinking). The second category can be further divided into psychological constructivism (changes in thinking resulting from individual experiences), and social constructivism (changes in thinking due to assistance from others). The rest of this paper describes key ideas from each of these viewpoints. As I hope you will see, each describes some aspects of learning not just in general, but as it happens in classrooms in particular. So each perspective suggests things that *you* might do in *your* classroom to make students' learning more productive.

Behaviorism: changes in what students do

Behaviorism is a perspective on learning that focuses on changes in individuals' observable behaviors – changes in what people say or do. At some point we all use this perspective, whether we call it "behaviorism" or something else. The first time that I drove a car, for example, I was concerned primarily with whether I could actually do the driving, not with whether I could describe or explain how to drive. For another example: when I reached the point in life where I began cooking meals for myself, I was more focused on whether I could actually produce edible food in a kitchen than with whether I could explain my recipes and cooking procedures to others. And still another example – one often relevant to new teachers: when I began my first year of teaching, I was more focused on doing the job of teaching – on day-to-day survival – than on pausing to reflect on what I was doing.

In classrooms, behaviorism is most useful for identifying relationships between specific actions by a student and the immediate precursors and consequences of the actions. They also rely primarily on two basic images or models of behavioral learning, called *respondent (or "classical") conditioning* and *operant conditioning.*

Respondent conditioning: learning new associations with prior behaviors

As originally conceived, **respondent conditioning** (sometimes also called *classical conditioning)* begins with involuntary responses to particular sights, sounds, or other sensations (Lavond, 2003). When I receive an injection from a nurse or doctor, for example, I cringe, tighten my muscles, and even perspire a bit. Whenever a contented, happy baby looks at me, on the other hand, I invariably smile in response. I cannot help myself in either case; both of the responses are automatic. In humans, as well as other animals, there is a repertoire or variety of such specific, involuntary behaviors. At the sound of a sudden loud noise, for example, most of us show a "startle" response – we drop what we are doing (sometimes literally!), our heart rate shoots up temporarily, and we look for the source

of the sound. Cats, dogs and many other animals (even fish in an aquarium) show similar or equivalent responses.

Involuntary stimuli and responses were first studied systematically early in the twentieth-century by the Russian scientist Ivan Pavlov (1927). Pavlov's best-known work did not involve humans, but dogs, and specifically their involuntary tendency to salivate when eating. He attached a small tube to the side of the dogs' mouths, which allowed him to measure how much the dogs salivated when fed (Exhibit 1 shows a photograph of one of Pavlov's dogs). But he soon noticed a "problem" with the procedure: as the dogs gained experience with the experiment, they often salivated *before* they began eating. In fact, the most experienced dogs sometimes began salivating before they even saw any food, simply when Pavlov himself entered the room! The sight of the experimenter, which had originally been a neutral experience for the dogs, became associated with the dogs' original salivation response. Eventually, in fact, the dogs would salivate at the sight of Pavlov even if he did *not* feed them. This *change* in the dogs' involuntary response, and especially its growing independence from the food as stimulus, eventually became the focus of Pavlov's research. Psychologists named the process *respondent conditioning* because it describes changes in *responses* to stimuli (though some have also called it "classical conditioning" because it was historically the first form of behavioral learning to be studied systematically).

Operant conditioning: new behaviors because of new consequences

Instead of focusing on associations between stimuli and responses, **operant conditioning** focuses on the effects of consequences on behaviors. The operant model of learning begins with the idea that certain consequences tend to make certain behaviors happen more frequently. If I compliment a student for a good comment during a discussion, there is more of a chance that I will hear comments from the student more often in the future (and hopefully they will also be good ones!). If a student tells a joke to several classmates and they laugh at it, then the student is more likely to tell additional jokes in the future and so on.

Operant conditioning and students' learning: As with respondent conditioning, it is important to ask whether operant conditioning also describes learning in human beings, and especially in students in classrooms. On this point, the answer seems to be clearly "yes". There are countless classroom examples of consequences affecting students' behavior in ways that resemble operant conditioning, although the process certainly does not account for all forms of student learning (Alberto & Troutman, 2005).

Behavioral psychologists have studied the effects of **cues.** In operant conditioning, a cue is a stimulus that happens just prior to the operant behavior and that signals that performing the behavior may lead to reinforcement. Its effect is much like discrimination learning in respondent conditioning, except that what is "discriminated" in this case is not a conditioned behavior that is reflex-like, but a voluntary action, the operant. In the original conditioning experiments, Skinner's rats were sometimes cued by the presence or absence of a small electric light in their cage. Reinforcement was associated with pressing a lever when, and only when, the light was on. In classrooms, cues are sometimes provided by the teacher or simply by the established routines of the class. Calling on a student to speak, for example, can be a cue that *if* the student *does* say something at that moment, then he or she *may* be reinforced with praise or acknowledgment. But if that cue does *not* occur – if the student is *not* called on – speaking may *not* be rewarded. In more everyday, non-behaviorist terms, the cue allows the student to learn when it is acceptable to speak, and when it is not.

Constructivism: changes in how students think

Behaviorist models of learning may be helpful in understanding and influencing what students do, but teachers also usually want to know what students are *thinking,* and how to enrich what students are thinking. For this goal of teaching, some of the best help comes from **constructivism,** which is a perspective on learning focused on how students

actively create (or "construct") knowledge out of experiences. Constructivist models of learning differ about how much a learner constructs knowledge independently, compared to how much he or she takes cues from people who may be more of an expert and who help the learner's efforts (Fosnot, 2005; Rockmore, 2005). For convenience, these are called **psychological constructivism** and **social constructivism,** even though both versions are in a sense explanations of thinking within individuals.

Psychological constructivism: the independent investigator

A person learns by mentally organizing and reorganizing new information or experiences. The organization happens partly by relating new experiences to prior knowledge that is already meaningful and well understood. Stated in this general form, individual constructivism is sometimes associated with a well-known educational philosopher of the early twentieth century, **John Dewey** (1938–1998).

Although Dewey himself did not use the term constructivism in most of his writing, his point of view amounted to a type of constructivism, and he discussed in detail its implications for educators. He argued, for example, that if students indeed learn primarily by building their own knowledge, then teachers should adjust the curriculum to fit students' prior knowledge and interests as fully as possible. He also argued that a curriculum could only be justified if it related as fully as possible to the activities and responsibilities that students will probably have *later,* after leaving school. To many educators these days, his ideas may seem merely like good common sense, but they were indeed innovative and progressive at the beginning of the twentieth century.

Psychological constructivism is the cognitive theory of **Jean Piaget** (Piaget, 2001; Gruber & Voneche, 1995). Piaget described learning as interplay between two mental activities that he called *assimilation* and *accommodation.* **Assimilation** is the interpretation of new information in terms of pre-existing concepts, information or ideas. A preschool child who already understands the concept of *bird,* for example, might initially label any flying object with this term – even butterflies or mosquitoes.

Assimilation is therefore a bit like the idea of *generalization* in operant conditioning.

Social Constructivism: assisted performance

Unlike Piaget's rather individually oriented version of constructivism, some psychologists and educators have explicitly focused on the relationships and interactions between a learner and more knowledgeable and experienced individuals. One early expression of this viewpoint came from the American psychologist **Jerome Bruner** (1960, 1966, 1996), who became convinced that students could usually learn more than had been traditionally expected as long as they were given appropriate guidance and resources. He called such support **instructional scaffolding** – literally meaning a temporary framework, like one used in constructing a building, that allows a much stronger structure to be built within it. In a comment that has been quoted widely (and sometimes disputed), he wrote: "We [constructivist educators] begin with the hypothesis that any subject can be taught effectively in some intellectually honest form to any child at any stage of development" (1960, p. 33).

Similar ideas were proposed independently by the Russian psychologist **Lev Vygotsky** (1978), whose writing focused on how a child's or novice's thinking is influenced by relationships with others who are more capable, knowledgeable, or expert than the learner.

Implications of constructivism for teaching

One strategy that teachers often find helpful is to organize the content to be learned as systematically as possible, because doing this allows the teacher to select and devise learning activities that are more effective. One of the most widely used frameworks for organizing content, for example, is a classification scheme proposed by the educator Benjamin Bloom, published with the somewhat imposing title of *Taxonomy of Educational Objectives: Handbook #1: Cognitive Domain* (Bloom, et al., 1956; Anderson & Krathwohl, 2001). **Bloom's taxonomy**, as it is usually called, describes six kinds of learning goals that teachers can in principle expect from students, ranging from simple recall of knowledge

to complex evaluation of knowledge. (The levels are defined briefly in Table 2.3 with examples from *Goldilocks and the Three Bears*.)

Mental development in primary school (the concrete operational stage: age 7 to 11)

As children continue into elementary school, they become able to represent ideas and events more flexibly and logically. Their rules of thinking still seem very basic by adult standards and usually operate unconsciously, but they allow children to solve problems more systematically than before, and therefore to be successful with many academic tasks. In the concrete operational stage, for example, a child may unconsciously follow the rule: "If nothing is added or taken away, then the amount of something stays the same." This simple principle helps children to understand certain arithmetic tasks, such as in adding or subtracting zero from a number, as well as to do certain classroom science experiments, such as ones involving judgments of the amounts of liquids when mixed. Piaget called this period the **concrete operational stage** because children mentally "operate" on concrete objects and events. They are not yet able, however, to operate (or think) systematically about *representations* of objects or events. Manipulating representations is a more abstract skill that develops later, during adolescence. Concrete operational thinking differs from preoperational thinking in two ways, each of which renders children more skilled as students. One difference is **reversibility,** or the ability to think about the steps of a process in any order. Imagine a simple science experiment, for example, such as one that explores why objects sink or float by having a child place an assortment of objects in a basin of water. Both the preoperational and concrete operational child can recall and describe the steps in this experiment, but only the concrete operational child can recall them *in any order*. This skill is very helpful on any task involving multiple steps – a common feature of tasks in the classroom. In teaching new vocabulary from a story, for another example, a teacher might tell students: "First make a list of words in the story that

you do not know, then find and write down their definitions, and finally get a friend to test you on your list". These directions involve repeatedly remembering to move back and forth between a second step and a first – a task that concrete operational students – and most adults – find easy, but that preoperational children often forget to do or find confusing. If the younger children are to do this task reliably, they may need external prompts, such as having the teacher remind them periodically to go back to the story to look for more unknown words.

The other new feature of thinking during the concrete operational stage is the child's ability to **decenter,** or focus on more than one feature of a problem at a time. There are hints of decentration in preschool children's dramatic play, which requires being aware on two levels at once – knowing that a banana can be both a banana and a "telephone". But the decentration of the concrete operational stage is more deliberate and conscious than preschoolers' make-believe. Now the child can attend to two things at once quite purposely. Suppose you give students a sheet with an assortment of subtraction problems on it, and ask them to do this: "Find all of the problems that involve two-digit subtraction *and* that involve borrowing from the next column. Circle and solve *only* those problems." Following these instructions is quite possible for a concrete operational student (as long as they have been listening!) because the student can attend to the two subtasks simultaneously – finding the two-digit problems *and* identifying which actually involve borrowing. (Whether the student actually knows how to "borrow" however, is a separate question.)

In real classroom tasks, reversibility and decentration often happen together. A well-known example of joint presence is Piaget's experiment with **conservation,** the belief that an amount or quantity stays the same even if it changes apparent size or shape (Piaget, 2001; Matthews, 1998). Imagine two identical balls made of clay. Any child, whether preoperational or concrete operational, will agree that the two indeed have the same amount of clay in them simply because they look the same. But if you now squish one ball into a long, thin "hot dog", the preoperational child is likely to say that the amount of that ball has changed – either because it is longer or because it is thinner, but at any rate because it now

looks different. The concrete operational child will not make this mistake, thanks to new cognitive skills of reversibility and decentration: for him or her, the amount is the same because "you could squish it back into a ball again" (reversibility) and because "it may be longer, but it is also thinner" (decentration). Piaget would say the concrete operational child "has conservation of quantity". The classroom examples described above also involve reversibility and decentration. As already mentioned, the vocabulary activity described earlier requires reversibility (going back and forth between identifying words and looking up their meanings); but it can also be construed as an example of decentration (keeping in mind two tasks at once – word identification *and* dictionary search). And as mentioned, the arithmetic activity requires decentration (looking for problems that meet two criteria *and* also solving them), but it can also be construed as an example of reversibility (going back and forth between subtasks, as with the vocabulary activity). Either way, the development of concrete operational skills supports students in doing many basic academic tasks; in a sense they make ordinary schoolwork possible.

Summary

The term learning has many possible meanings, it is used by teachers to emphasize its relationship to curriculum, to teaching, and to transfer. Still another result of focusing the concept of learning on classrooms is that it raises issues of usefulness or transfer, which is the ability to use knowledge or skill in situations beyond the ones in which they are acquired. Combining enjoyment and usefulness, in fact, is the "gold standard" of teaching: we generally seek it for students, even though we may not succeed in providing it all of the time.

Viewed in this light, the two major psychological perspectives of learning – behaviorist and constructivist – have important ideas to offer educators.

The other major psychological perspective – constructivism – describes how individuals build or "construct" knowledge by engaging ac-

tively with their experiences. The psychological version of constructivism emphasizes the learners' individual responses to experience – their tendency both to assimilate it and to accommodate to it. The social version of constructivism emphasizes how other, more expert individuals can create opportunities for the learner to construct new knowledge. Social constructivism suggests that a teacher's role must include deliberate instructional planning, such as that facilitated by Bloom's taxonomy of learning objectives, but also that teachers need to encourage metacognition, which is students' ability to monitor their own learning.

Understanding development, or the long-term changes in growth, behavior, and knowledge, helps teachers to hold appropriate expectations for students as well as to keep students' individual diversity in perspective. From kindergarten through the end of high school, students double their height, triple their weight, experience the social and hormonal effects of puberty, and improve basic motor skills. Their health is generally good, though illnesses are affected significantly by students' economic and social circumstances. Cognitively, students develop major new abilities to think logically and abstractly, based on a foundation of sensory and motor experiences with the objects and people around them. Jean Piaget has one well-known theory detailing how these changes unfold.

Socially, students face and resolve a number of issues – especially the issue of industry (dedicated, sustained work) during childhood, and the issue of identity during adolescence. Erik Erikson has described these crises in detail, as well as social crises that precede and follow the school years. Students are motivated both by basic human needs (food, safety, belonging, esteem) and by needs to enhance themselves psychologically (self-actualization). Abraham Maslow has described these motivations and how they relate to each other.

Morally, students develop both a sense of justice and of care for others, and their thinking in each of these realms undergoes important changes as they mature. Lawrence Kohlberg has described changes in children and youth's beliefs about justice, and Carol Gilligan has described changes in their beliefs about care.

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Abstract

This theoretical paper reviews the major theories and models of learning and views them in the light of two major psychological perspectives of learning: behaviorist and constructivist. The educational process has become the dominant response to challenges in all the domains of modern life. The key to a good primary education is the quality of its teachers. Quality education enables people to develop all of their attributes and skills in order to achieve their potential as human beings and members of society.

A deeper understanding of the students' behavior enables the teacher to help guide them through the educational process. Understanding development, or the long-term changes in growth, behavior, and knowledge, helps teachers to hold appropriate expectations for students as well as to keep students' individual diversity in perspective. From kindergarten through the end of high school, students double their height, triple their weight, experience the social and hormonal effects of puberty, and improve basic motor skills.

Keywords: factors, educational process, teaching, primary school, learning, educational psychology.

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The Concept of "Good/Quality Kindergarten Teacher": Comparative Points of View of First-year University Students Versus Graduating Students

Introduction

For several decades now we have been witnessing fundamental changes in society's relationships, as well as the specific expectations and responsibilities bestowed on educational institutions the world over. Fortunately, this is happening mostly on the basis of "approaching the modern human as a multifaceted, complex and autonomous figure, taking the initiative and the responsibility for their own development (Rasheva-Merdzhanova 2012: 14). In the past, pupils were seen as passive receptors of knowledge and influence, while nowadays the focus is on the active role of the pupil in the process of interaction and communication. Paradigms oriented towards personal training are, logically, unlocking new expectations from pedagogues which, consequently, lead towards the need for building new competencies in both future and active teachers. Although the perception of a good teacher includes a core of definite and, so to speak, eternal connotations, the influence of the societal phase of development and especially the dynamic way of modern life is unavoidable. Osaďan & Hanna (2015) aptly state that "the 21st-century generation must learn how to deal effectively in a world where information travels near the speed of light, facts can be found within seconds, and vast communities form every day on the Internet. No longer are reading, writing, and arithmetic enough to succeed in the world and in

a career". On the other hand, it is logical that the role of teachers, considered to be "second parents", is continuously expanding, mainly because of the fact that outside the home, these adults are the ones responsible for teaching the kids good manners, while broadening their intellectual capacity at the same time (Osaďan & Burrage, 2013: 498).

The question of what constitutes effective teaching has been researched for decades. According to Hollins (2011: 395), "teaching is a complex and multidimensional process that requires deep knowledge and understanding in a wide range of areas and the ability to synthesize, integrate, and apply this knowledge in different situations, under varying conditions, and with a wide diversity of groups and individuals. In quality teaching, this knowledge is applied in ways that provide equitable access and opportunities that build upon and extend what learners already know in facilitating the ability to acquire".

As Wang et al (2011: 336) claim, although it is popularly believed that quality teaching is a major factor in affecting student performance, and that teacher education should be responsible for developing quality teachers, there appears to be a lack of conceptual clarity about what constitutes quality teaching and how particular notions of quality teaching are related to specific teacher learning opportunities. It is generally assumed that quality teaching plays a major, if not the most important, role in shaping students' academic performances (Wang et al 2011: 331). In their study, Stronge, Ward, and Grant (2011) examined the measurable impact that teachers have on student achievement and concluded that as far as this connection could be measured through research, there definitely is such a connection.

The effect of the level of teachers' professional skills, as well as their personal qualities, on the quality of the educational process has been discussed in several studies. Wang et al (2011: 331) claim that "quality teaching from a cognitive resource perspective is related to the knowledge, beliefs, attitudes, and dispositions teachers bring into the profession". Quality teaching is linked to one's competence as demonstrated on academic and professional tests, and such competence is presumably one of the central predictors for how effective a teacher becomes. Quality teaching is as

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well associated with the credentials one holds for teaching. This notion surfaces especially during discussions of whether all students have been taught by teachers who hold licenses in the fields that they are teaching.

Bearing in mind the importance of interactions during the initial seven years of a child's life, as well as the wide gamut of qualification requirements for preschool pedagogues throughout the world (see Oberhuemer, Schreyer & Neuman 2010), the understanding of the essence of the concept of "a good children's teacher" becomes much more interesting and worthy of qualitative analysis. Obviously, outlining the characteristics of a "good children's teacher" is invariably tied to the issue of the quality of preschool education as a whole. La Paro et al (2012) claim that the study of *quality* in early childhood education is increasingly relevant because research has continued to demonstrate consistent associations between various aspects of classroom quality and improved social and academic outcomes for young children. According to La Paro et al (2012), some researchers have conceptualized early childhood education quality in terms of global quality with two primary components – "structural" and "process" quality. Examples of indicators of structural quality include classroom materials, curriculum, teacher education, and teacher-child ratio. These indicators are often the regulated aspects of classrooms and programs. Indicators of process quality focus on the more dynamic aspects of early childhood education, including human interactions occurring in the classrooms, such as teacher-child and peer-to-peer interactions. Structural quality and process quality, each a component of global quality, provide unique and essential information to the understanding of early childhood classrooms. La Paro et al 2012 summarize that the quality continues to be an amorphous term with varying definitions within early childhood education. La Paro et al 2012 also draw the attention to the fact that characteristics of teachers and the relationships between teachers and children have been related to quality in the literature. The field continues to move toward examining the central role of the teacher in classroom quality, and individual teacher characteristics are increasingly being studied as possible predictors of classroom effectiveness. La Paro et al 2012 underline as well that findings from re-

cent studies focused on teacher-child interactions suggest that these re-lationships play a critical role in children's development.

For the purpose of specifying the concept of the quality of preschool education, this publication presents part of the results of a wider study aimed at researching the notion of the "good/quality kindergarten teacher" held by students preparing to become preschool teachers in the Faculty of Primary and Preschool Education of the Sofia University "St. Kli-ment Ohridski" in Bulgaria. Specifically, the publication aims to note some of the most important differences in the relevant viewpoints of first-year students in comparison to the opinion of graduating students.

The publication has the following three main goals:

- To describe the author's methodology for this research.
- To present the results of the research in graph and table formats, focusing on the differences of the viewpoints between first-year and graduating students.
- To outline some directions for future analysis of these results, as well as to suggest ideas for application of the methodology used.

More in-depth analyses of the presented results will be the focus of a series of future publications on the subject.

Organization and methodology of the research

The research was carried out on the opinions of seventy two (72) stu-dents of the Faculty of Primary and Preschool Education of the Sofia University "St. Kliment Ohridski", enrolled in the "Primary and Preschool Education" specialty, which is a 4-year Bachelor's degree program, award-ing graduates with the qualifications necessary for working as preschool teachers (with children aged 2–7 years old) or primary school teachers (with children aged 7–11 years old). Half of the participating students (36) were approached at the beginning of their university education; the other half (36) participated during the middle of their last year. The main method

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used for the research is the analysis of the students' individual written essays on the subject "My idea of a good/quality kindergarten teacher". For the first-year students, assessment on the quality of the essays formed 50% of their overall assessment for the "Introduction to the Specialty" class, while the graduating students' essays formed part of their assessment on the "Current Pedagogical Practice" class, which is part of their seventh semester curriculum. In other words, the students were motivated to do their best in writing the essays. The first-year students' essays were collected during the month of October 2013, while the graduating year essays were collected during the month of January 2015. All of the students provided informed consent for the use of their essays in analysis; however, in order to avoid bias, the students were not informed of the specifics of the research procedure. The participating first-year students and graduating students are not the same people; however, all of the students were educated using the same curriculum, which was not altered during their entire time in the university. Thus, the results could be relatively reliably used towards interpretations related to research hypotheses concerning the acquired knowledge, skills and attitudes of students during the time of their university education by interpretation of the difference between the relatively more general idea of the essence of the "good/quality kindergarten teacher" in first-year students, compared to the presumably more specific and more "professional" understanding of the graduating students. Although it should be clear that the research presented here does not aim for representativeness, it should nevertheless outline some important tendencies in defining the field of the issues under research.

The collected essays were subjected to qualitative analysis aimed at the distribution of the contained opinions regarding the essence of the notion of "good/quality kindergarten teacher" into an unlimited number of semantic categories, provisionally divided into two main groups:

- General personal qualities: mainly qualities, but also some skills, attitudes, etc. which are mainly inherent qualities of the person as a whole (see Table 1);
- Specialized professional qualities, skills, attitudes, etc. (see Table 2).

In parallel to the qualitative analysis, the quantity of repeating categories was determined, while adhering to the rule that each separate category would be accounted for only once for each essay, even in such rare cases when the category is mentioned multiple times or the same skill, quality, etc. is described in different wording. The analysis was performed by the author; all included qualities, skills, attitudes, etc. were defined as separate categories concurrently with the essays' assessment and on the basis of the opinions contained therein. The author has not added any additional categories and has tried to the best of her ability to objectively combine similar semantic fields under one category. In other words, the categories shown in Table 1 and Table 2 do not include all possible qualities, skills, attitudes, etc. that make up the notion of a "good children's teacher", but rather represent their gamut in the way it was defined in the essays of the participating students. The selection of categories is open to expansion with new ones in the future.

Table 1. General personal qualities

Responsible	Consistent	Advisor
Attentive	Highly intelligent	Purposeful
Kind, smiling, cheerful, friendly	Dependable	Up with the times
With broad general knowledge, erudite	Honest	Convincing
Flexible	Creative, imaginative	A good public speaker
A friend and confidant	Confident	Observant
Caring	With a large heart	Presentable and well-dressed
Just	Balanced and calm	Radiant
Optimist; positive	A good person	Impartial
Selfless	Conscientious	Encouraging
With a sense of humour	Tender	Incentivizing
Interesting	Modest	Well-meaning
Patient	Astute	Discerning
With high moral values	Principled	Active
Communicative, sociable	Strong in spirit	Approachable
A hero	Self-critical	Tolerant
Meticulous, striving for perfection	Self-respecting	Is able to self-assess adequately
Organized	Enduring	Young
Courageous	Open-minded	Discreet; tactful
Loves children	A free thinker	Knows how to forgive

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Table 2. Specialized professional qualities, skills, attitudes, etc.

A factor in the child's development; a major influence in children's lives	Uses modern information and computer technologies
Proud of his/her profession	Instils critical thinking in children
Has won children's love	Explains in a fun way
Familiar with each child's potential	Interacts instead of simply influencing
Experienced, good child psychologist	Knows how to stimulate activity in the children
Has a solid professional theoretical basis	Manager of the children's group (management skills)
Has a good rhythm of teaching	Knows how to predispose towards sharing
Loves his/her job; has a positive attitude towards his/her work	Never displays any physical aggression
Has a university degree in preschool education	Uses various techniques and methods
Keeps children under supervision/control	Does not play "favourites" and allows no prejudice
Plans ahead adequately	Displays shrewdness when needed
Creates a welcoming material environment for children	Seeks collaboration with parents
Explains things in terms understandable by children	Displays intercultural competence in pedagogy
Progressive, innovative	Works well with colleagues and staff
A guide and mentor	Distributes his/her time equally among the children
An inspiration (inspires children towards knowledge)	Charismatic
Leads the child forward, towards development	Artistic
Develops the child's inquisitiveness	Makes good use of non-verbal communication
Develops the child's creativeness	Always explains why
Follows appropriate individual approaches	Has musical skills
Continuously improves and self-improves his/her professional qualifications	Has fine art skills
Hands out punishment, but in a just way	Physically active, has physical culture
Controls his/her negative emotions	Uses illustrative methods and tools
A role-model	Focuses on insight and understanding instead of remembrance only; develops children's thinking
Title	Sets realistic goals
Calling	Entertainer
Uses games and play in his/her methodology	Presents children with several different viewpoints on a specific issue
Creates a positive emotional environment	Strikes a balance between development of personal qualities and skills related to modern technology
Keeps a little piece of his/her childhood	Ensures feedback
Educates in manners as well as knowledge	Discerns each child's talent(s)
Feels joy for the children's achievements	Is efficient in practicing his/her profession
Knows how to behave and speak with the children; has the correct approach towards children	Is open to learning from children
Earns the children's respect	Provides clear and precise instructions
Is like a parent	Ensures empirical experience acquisition
Supportive, ready to help the children	Ensures learning through emotional experience
Establishes discipline	Organizes pedagogical interaction in accordance with the applicable regulations
Understands the children, is empathetic	Does not raise his/her voice
Stern, only when required	
Stern, but fair	

After defining 136 categories on the basis of the students' essays (see 60 General personal qualities in Table 1 and 76 Specialized professional qualities, skills, attitudes, etc. in Table 2), the results were processed using Microsoft Excel 2010; the aim was to show the predominant categories in each group, as well as some percentage comparisons. Additional statistical analysis was performed using SPSS 19 to establish some key differences between the opinions of each group of students.

This publication will not go into detail regarding the differences in the essence of ideas such as personal qualities, skills, attitudes, etc., but will use the aforementioned provisional grouping to facilitate the display of the results. It is, however, important to note the difficulty in provisionally grouping the categories into general personal qualities and specialized professional qualities, skills, attitudes, etc. It was especially difficult to process the second group, which is comprised of more varied notions (professional qualities, skills, relationships, attitudes, comparisons, etc.). On the other hand, some of the categories assigned to the second group (e.g. artistic; does not raise his/her voice; progressive, innovative, etc.) could essentially be defined as general personal qualities; however, due to the context of their usage in the essays, it was considered that they relate mostly to qualities or skills that are displayed during the practice of the teacher's profession, and were therefore included in the specialized professional qualities, skills, attitudes, etc. group.

Research results

The main results of the research are presented in Fig. 1 and Fig. 2 and suggest a wide array of analyses and comments, which will be the focus of a series of future publications on the subject by the author. In order to display the results more clearly, Tables 3, 4, 5, and 6 present a hierarchical list of the most frequently-mentioned categories (the ones that are mentioned in at least 3 separate essays from each group of students). Tables 7 and 8 are focused on the statistically-important percentage differences of mentions of each category by graduate students as compared to first-year ones.

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In general, looking at Fig. 1 and Fig. 2, as well as all included tables with results, it is worthy of note that first-year students are more actively concerned with notions that apply to the general personal qualities group, as opposed to graduating students, who predominantly tend toward more specific pedagogical stipulations. This makes complete sense, bearing in mind the specialized education in their professional field which graduating students have received during their time in the university.

From Fig. 1 and Table 3, it is evident that, with regard to general personal qualities, in the eyes of first-year students a "good children's teacher" is someone who is patient; loves children; kind, smiling, friendly; a friend and confidant; with broad general knowledge; a good person; responsible; balanced and calm; creative, imaginative; discerning; selfless; with a sense of humour; attentive; optimist; incentivizing; etc. Comparing the results of Table 3 with those in Table 4, it can be summarized that, for graduating students, the larger part of the qualities mentioned is repeated, with some of them having a very close percentage correlation: loves children; with broad general knowledge; etc.

From Fig. 2 and Table 4 we can conclude that, with regard to specialized professional qualities, skills, attitudes, etc., the first-year students view a "good children's teacher" as a person who understands the children, is empathetic; improves his/her qualifications; loves his/her job; follows appropriate individual approaches; is a role-model; supportive, ready to help the children; is a factor in the child's development; explains in a fun way; etc. Once again there is a similarity to the opinions of graduating students, but the percentage correlations are different and deserve a deeper analysis. Also, it is interesting that graduating students add mentions of a wide array of specialized skills, most of them not mentioned by first-year students - always explains why; has fine art skills; has skills in the field of physical education; uses illustrative methods and tools; develops children's thinking; focuses on insight; sets realistic goals; discusses issues from several viewpoints; balance personal qualities - modern technology skills; ensures feedback; discerns each child's talent(s); is open to learning from children; provides clear and precise instructions; ensures empirical experience acquisition; organizes pedagogical interaction as per regulations;

Figure 1: Mentions of general personal qualities (in percentages)

Knows how to forgive
Discreet
Young
Is able to self-assess adequately
Tolerant
Approachable
Active
Impartial
Convincing
Advisor
A free thinker
Open-minded
Self-respecting
Self-critical
Conscientious
Confident
Dependable
Courageous
Flexible
Radiant
Presentable and well-dressed
Up with the times
Enduring
Astute
Tender
Organized
Meticulous, striving for perfection
Interesting
A good public speaker
Purposeful
Strong in spirit
Principled
Modest
Highly intelligent
A hero
Well-meaning
Encouraging
Observant
Honest
Consistent
With a large heart
Communicative, sociable
With high moral values
Just
Caring
Incentivizing
Optimist
Attentive
With a sense of humour
Selfless
Discerning
Creative, imaginative
Balanced and calm
Responsible
A good person
With broad general knowledge, erudite
A friend and confidant
Kind, smiling, friendly
Loves children
Patient

■ First-year students   □ Graduate students

100,0% 90,0% 80,0% 70,0% 60,0% 50,0% 40,0% 30,0% 20,0% 10,0% ,0%

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Figure 2: Mentions of specialized professional qualities, skills, attitudes, etc. (in percentages)

■ First-year students   ☐ Graduate students

Does not raise his/her voice
Organizes pedagogical interaction as per regulations
Ensures empirical experience acquisition
Provides clear and precise instructions
Is open to learning from children
Discerns each child's talent(s)
Ensures feedback
Balance personal qualities – modern technology skills
Discusses issues from several viewpoints
Sets realistic goals
Develops children's thinking; focuses on insight
Uses illustrative methods and tools
Has skills in the field of physical education
Has fine art skills
Always explains why
Is efficient in practicing his/her profession
Makes good use of non-verbal communication
Charismatic
Distributes his/her time equally among the children
Displays intercultural competence in pedagogy
Displays shrewdness when needed
Does not play favourites and allows no prejudice
Knows how to predispose towards sharing
Knows how to stimulate activity in the children
Establishes discipline
Keeps a little piece of his/her childhood
Title
Hands out punishment, but only in a just way
Develops the child's creativeness
Leads the child forward, towards development
Creates a welcoming material environment
Keeps children under supervision/control
Has a good rhythm of teaching
Has won children's love
Has musical skills
Works well with colleagues and staff
Entertainer
A guide and mentor
Has a university degree in preschool education
Experienced, good child psychologist
Artistic
Never displays any physical aggression
Feels joy for the children's achievements
Educates in manners as well as knowledge
Creates a positive emotional environment
Progressive, innovative
Familiar with each child's potential
Seeks collaboration with parents
Uses various techniques and methods
Manager of the children's group
Interacts instead of simply influencing
Explains things in terms understandable by children
Plans ahead adequately
Proud of his/her profession
Controls his/her negative emotions
Stern, but fair
Instills critical thinking in children
Develops the child's inquisitiveness
Uses modern IC technologies
Knows how to behave and speak with the children
Uses games and play in his/her methodology
Stern only when required
Explains in a fun way
Earns the children's respect
An inspiration (inspires children towards knowledge)
Has a solid professional theoretical basis
A factor in the child's development
Supportive, ready to help the children
A role-model
Follows appropriate individual approaches
Loves his/her job
Is like a parent
Calling
Improves and self-improves his/her qualifications
Understands the children, is empathetic

100,0%   90,0%   80,0%   70,0%   60,0%   50,0%   40,0%   30,0%   20,0%   10,0%   ,0%

Table 3. The most common general personal qualities that first-year university students associate with the concept of "good/quality kindergarten teacher"

Patient	60.0%
Loves children	54.3%
Kind, smiling, friendly	40.0%
A friend and confidant	40.0%
With broad general knowledge, erudite	28.6%
A good person	28.6%
Responsible	25.7%
Balanced and calm	25.7%
Creative, imaginative	22.9%
Discerning	22.9%
Selfless	20.0%
With a sense of humour	20.0%
Attentive	17.1%
Optimist	17.1%
Incentivizing	17.1%
Caring	14.3%
Just	14.3%
With high moral values	14.3%
Communicative, sociable	14.3%
With a large heart	14.3%
Consistent	11.4%
Honest	11.4%
Observant	11.4%
Encouraging	11.4%
Well-meaning	11.4%
A hero	8.6%
Highly intelligent	8.6%
Modest	8.6%
Principled	8.6%
Strong in spirit	8.6%
Purposeful	8.6%
A good public speaker	8.6%

Table 4. The most common general personal qualities that graduating university students associate with the concept of "good/quality kindergarten teacher"

Creative, imaginative	52.8%
Loves children	47.2%
Selfless	44.4%
Patient	38.9%
Responsible	33.3%
Kind, smiling, friendly	25.0%
A friend and confidant	25.0%
With broad general knowledge, erudite	25.0%
With high moral values	25.0%
Optimist	22.2%
A good person	16.7%
Communicative, sociable	16.7%
With a large heart	16.7%
Up with the times	16.7%
Tolerant	16.7%
Flexible	13.9%
Encouraging	11.1%
Strong in spirit	11.1%
Self-critical	11.1%
Balanced and calm	8.3%
Attentive	8.3%
Just	8.3%
Honest	8.3%
A good public speaker	8.3%
Self-respecting	8.3%
Young	8.3%

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Table 5. The most common professional qualities, skills, attitudes, etc. that first-year university students associate with the concept of "good/quality kindergarten teacher"

Understands the children, is empathetic	63.9%
Improves and self-improves his/her qualifications	41.7%
Calling	36.1%
Is like a parent	33.3%
Loves his/her job	30.6%
Follows appropriate individual approaches	30.6%
A role-model	27.8%
Supportive, ready to help the children	27.8%
A factor in the child's development	25.0%
Has a solid professional theoretical basis	25.0%
An inspiration (inspires children towards knowledge)	25.0%
Earns the children's respect	25.0%
Explains in a fun way	25.0%
Stern only when required	19.4%
Uses games and play in his/her methodology	19.4%
Knows how to behave and speak with the children	19.4%
Uses modern IC technologies	19.4%
Develops the child's inquisitiveness	16.7%
Instills critical thinking in children	16.7%
Stern, but fair	16.7%
Controls his/her negative emotions	13.9%
Proud of his/her profession	11.1%
Plans ahead adequately	11.1%
Explains things in terms understandable by children	11.1%
Interacts instead of simply influencing	11.1%
Manager of the children's group	11.1%
Uses various techniques and methods	11.1%
Seeks collaboration with parents	11.1%
Familiar with each child's potential	8.3%
Progressive, innovative	8.3%
Creates a positive emotional environment	8.3%
Educates in manners as well as knowledge	8.3%
Feels joy for the children's achievements	8.3%
Never displays any physical aggression	8.3%
Artistic	8.3%

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Table 6. The most common professional qualities, skills, attitudes, etc. that graduating university students associate with the concept of "good/quality kindergarten teacher"

Understands the children, is empathetic	58.3%
A factor in the child's development	47.2%
An inspiration (inspires children towards knowledge)	47.2%
Explains in a fun way	44.4%
Seeks collaboration with parents	41.7%
Loves his/her job	38.9%
Improves and self-improves his/her qualifications	36.1%
Uses modern IC technologies	30.6%
Earns the children's respect	27.8%
Proud of his/her profession	27.8%
Uses various techniques and methods	27.8%
Progressive, innovative	27.8%
Calling	25.0%
Supportive, ready to help the children	25.0%
Creates a positive emotional environment	25.0%
Follows appropriate individual approaches	22.2%
Has a solid professional theoretical basis	22.2%
Controls his/her negative emotions	19.4%
A guide and mentor	19.4%
A role-model	16.7%
Familiar with each child's potential	16.7%
Discerns each child's talent(s)	16.7%
Explains things in terms understandable by children	13.9%
Educates in manners as well as knowledge	13.9%
Has won children's love	13.9%
Creates a welcoming material environment	13.9%
Sets realistic goals	13.9%
Is like a parent	11.1%
Stern only when required	11.1%
Knows how to behave and speak with the children	11.1%
Feels joy for the children's achievements	11.1%
Has a university degree in preschool education	11.1%
Develops the child's creativeness	11.1%
Develops the child's inquisitiveness	8.3%
Experienced, good child psychologist	8.3%
Works well with colleagues and staff	8.3%
Leads the child forward, towards development	8.3%

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Establishes discipline	8.3%
Has skills in the field of physical education	8.3%
Balance personal qualities - modern technology skills	8.3%
Is open to learning from children	8.3%

does not raise his/her voice. The analysis of all these specialized professional qualities, skills, attitudes, etc. mentioned here could yield very useful information on the adequacy of study plans, curriculums, etc.

When specifying the modern functions of a teacher, Rasheva-Merdzhanova (2012) pays special attention to the role of the teacher as a partner, advisor, entertainer, mentor, role model, friend, artist, and diplomat – all of which were characteristics mentioned in the students' essays as being of vital importance for the teacher's profession in today's world. It is noteworthy that, in some form or other, the students' essays touch upon Stronge, Ward and Grant's (2011: 340) "Teacher Effectiveness Dimensions", which have been defined by conducting a review of a large number of publications connected with the topic of teachers' effectiveness, among which Instructional delivery focused on instructional differentiation, instructional clarity, instructional complexity; use of technology; feedback; classroom management, etc., as well as some personal qualities like caring, positive relationships with students; fairness and respect; enthusiasm, etc. All of them evidence a proper orientation of students, even the first-year ones, with regard to the essence of quality education, including preschool education.

Table 7. General personal qualities: statistically significant differences in graduating students compared to first-year students

	Year of study			
	First-year students	Graduating students	t	p
Creative, imaginative	22.9%	52.8%	2.74	0.008
Selfless	20.0%	44.4%	2.29	0.025
Tolerant	2.9%	16.7%	2.02	0.047

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**Table 8: Specialized professional qualities, skills, attitudes, etc.:
statistically significant differences in graduating students
compared to first-year students**

	Year of study			
	First-year students	Graduating students	t	p
A factor in the child's development	25.0%	47.2%	2.02	0.047
An inspiration (inspires children towards knowledge)	25.0%	47.2%	2.02	0.047
Seeks collaboration with parents	11.1%	41.7%	3.14	0.003
Progressive, innovative	8.3%	27.8%	2.22	0.030
Sets realistic goals	0%	13.9%	2.41	0.019
Discerns each child's talent(s)	0%	16.7%	2.68	0.009

From Table 7 and Table 8 it is obvious that, regarding general per-
sonal qualities (Table 7), students ending their university studies reassert
with even more conviction the importance of *creativity, selflessness,* and
tolerance, while from the specialized professional qualities, skills, atti-
tudes, etc., graduating students quite categorically value the teacher's
role as *a factor* and *an inspiration in the child's development*. Also, gradu-
ating students categorically define the importance of *innovativeness of
the kindergarten teacher,* who *sets realistic goals* and *aims at discerning
each child's talent(s), always seeking collaboration with parents.*

Special attention needs to be focused on the fact that approximately
one-third of participating students, both first-year (36.1%) and graduat-
ing ones (25%) regard the profession of children's teacher as a calling. This
is understandable since traditional social attitudes in Bulgaria are similar,
even as far back as Zhekova (1976: 31), who connects "the teacher's call-
ing most of all with his/her relationship with the children" – the person
who heeds the calling "loves children, treats them with attention and pa-
tience; is pleased to associate and work with children and pupils". Also, in
direct connection with the calling, Zhekova highlights "communication

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qualities of the person, their ability to communicate in different ways – using speech, movements, facial expressions, mimicry; their ability to easily and clearly convey thoughts to others", with the addition of elementary "pedagogical observation" – a selective attitude toward pedagogical facts and events, an interest in them, ability to understand them, to explain and feel them. All of those aspects are touched upon in one way or another by the participating students in their essays. In today's fast-paced and transient way of life, future teachers are searching for a rationalization of their life by devoting themselves to the children's teacher profession, by finding their calling in it. As Stamatov and Minchev (2003: 59) claim, "answering the calling awards inner peace… the realization that one has been called gives meaning to existence; …the calling… offers completeness to one's being". It is remarkable that almost all of the students who consider the children's teacher profession as a calling also share the fact that they have personally discovered that calling within themselves and it is the reason they are studying this particular specialty. It also makes sense that first-year students are the ones who mostly connect the teaching profession with a calling (36.1%), while similar declarations in graduating students are lower by one-third (25%). This is probably due to the students being acquainted with a wider scope of professional skills during their time in university; skills that are necessary for them. They have also understood the specifics of their profession better, which may have led them to conclude that, while important, the calling by itself is not enough to make one a "good/quality kindergarten teacher". On the opposite side is the appreciation of the teacher's profession. Even though 11.1% of first-year students and 27.8% of graduate students declare that they are proud of their profession, the children's teacher profession itself is not socially appreciated as much as it deserves to be in the context of the modern world. Unfortunately, the direction of this tendency is negative, even as far back as Zhekova (1976: 22), who claims that "society's opinion of the teacher's profession at the moment is not enviable. All of the studies and polls done in relation to professional orientation toward teaching highlight society's lack of appreciation, the profession's lack of prestige and the frequent negative assessment of teachers and their

work. The profession's social-psychological status is way below that from 40–50 years ago". Today, another 40 years after those remarks, teachers' status in society is unfortunately unchanged; it could also be claimed that it has slipped even lower.

While the difference of concepts between first-year students and graduating students as to what makes a "good/quality kindergarten teacher" can be examined through the information present in their essays, valuable conclusions can also be drawn from the apparent lack of mention of certain skills, qualities, etc. in the essays, particularly in those of the graduating students. The sample used for this publication's research is quite small, therefore the lack of an important aspect cannot be taken as categorical evidence, but nevertheless the two aspects discussed below could form the basis of a more serious discussion and also serve as a demonstration of how similar research can be used to enhance study plans and/or curriculums of different classes, to help enhance the quality of future kindergarten teachers.

Thus, a matter for some serious analysis is the fact that none of the participating students (not even the ones with special educational needs: in total 4 out of 72, one visually-impaired and three hard-of-hearing) have pointed out in any way the specific skills that teachers must have with relation to integrating children with special educational needs. After researching the study plans and curriculums, a possible reason for this fact may be that none of the students have any mandatory modules related to the specifics of inclusive preschool education; there is only an elective module on "Integration of children with problems (social, emotional, health)" which is non-mandatory and was not attended by any of the participating students. The lack of mandatory tuition on these kind of issues in the academic preparation had been noted even before the start of this research; as of the 2014/2015 academic year, along with the aforementioned elective module, students' tuition on this issue is at least partially covered by the newly-introduced mandatory module on "Special pedagogy", whose study plan contains a section dedicated to inclusive education.

Another absence from the researched categories which deserves attention is an understanding of the importance of the children's teacher's

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intercultural competence. Only a single student (interestingly enough, a first-year foreign student) touched upon the "Displays intercultural competence in pedagogy" category. This categorically shows that even though these issues are covered in the study curriculum in elective modules such as "Playing and intercultural competence", the students still understand intercultural education as separate and partially-applicable, related to individual pupils, not as a pedagogical method in education which is valid for all. This corresponds to the conclusions of Rueda & Stillman (2012), according to whom, during the last several decades, teacher education's central challenge has been to prepare teachers for the rising heterogeneity and the changing demographics of the classroom, connected to the need to focus on cultural and linguistic issues. They claim that a common response to this challenge has been the compartmentalization of university-based teacher education programs into different specializations. Rueda & Stillman 2012 called for teacher educators to integrate these principles and practices into teacher education programs – rather than treating them as supplements to the existing curriculum. Rather, they have argued for an approach that engages all teachers and specialists in "teaching culturally" – no matter the background, setting, or students – as a way to reduce some of the barriers that have typically hindered collaboration across specializations and as a way to best serve the students who have traditionally fared less well in the education system. This approach requires that we see culture differently than has been the case in the past, and that we rethink the type of preparation needed to accomplish this. All the aforementioned is connected with the more general disadvantage, claimed by Kostrub et al 2013; Osadan & Hanna 2015, etc. – the opinion that didactic teaching at universities (especially in the courses of teaching) is still very often based on repeated reproduction (retransmission). The necessity of updating and restructuring the academic curriculums related to teachers' preparation throughout the world is highlighted by Hollins (2011), who accurately focuses on the fact that over the past two decades there has been a great deal of focus on reform in teacher preparation aimed at improving learning outcomes for student's construct, and creating new knowledge. Hollins 2011 addresses

some of the challenges regarding what prospective teachers need to learn, and how they should learn it in their teacher education programs. She first of all proposes a set of knowledge, skills, and habits of mind that are essential in order for prospective teachers to develop quality teaching.

Finally, once again in order to define the perspective for future analyses in the area of the issues highlighted in this publication, an interesting parallel can be drawn with the information in the article by Krachunov (2015), who comments on the results of a discussion he had with 2nd grade pupils on the subject "What does it mean to be a good teacher?", which was provoked by the poem titled "My [female] teacher", by Bulgarian poet Leda Mileva. From the discussion, it becomes obvious that the perception of 2nd grade pupils (who are close to the age of preschoolers) corresponds to a large degree with the personal and professional qualities mentioned by the students. According to the children, the teacher must be kind, resourceful, patient; they must be not only a teacher, but also a friend, someone who pupils can trust; someone who motivates and encourages them; someone active, adaptable; someone who "seeks the key to the treasury of knowledge that must be the pupil's head". "The art of teaching and educating is the art of awakening curiosity in young souls… Teachers must make the lesson and the class more interesting. A good teacher motivates, inspires, can satisfy children's interest and thirst for knowledge, can make it so that pupils work harder to achieve better results." It is very positive that children's views on good teachers correspond with those of the future teachers themselves – this creates more possibilities that the two of them will one day engage in cultivating and affirming pedagogical interaction that will provide satisfaction for both sides.

Some fields for future analyses have been marked, but some additional perspectives can be mentioned in relation to research already underway by the author. For example, the analysis of the differences of opinion on the "good/quality kindergarten teacher" between male and female students, as well as between Bulgarian and foreign students of the Faculty of Primary and Preschool Education of the Sofia University

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"St. Kliment Ohridski" would both be interesting. Useful research could also be conducted on the specifics of the viewpoints of students with special educational needs, as well as some in-depth comparative analyses on the opinions of the students from this publication's research as compared to similar students from universities in other countries. On the other hand, the 136 categories presented in this publication are being used by the author as the basis for creating a questionnaire, to be used as a tool for objective and detailed assessment of the quality of the work of in-service kindergarten teachers. A series of upcoming publications by the author will present and detail these aspects.

Conclusion

The personality and the professional skills of teachers undoubtedly form the basis for quality education; this is especially true for preschool pedagogues.

The profile of the ideal children's teacher, as defined by students, highlights the need for filling in some blanks in study plans and curriculums; however, it also demonstrates a modern viewpoint on the personal qualities and professional skills of the preschool pedagogue that is in line with modern educational tendencies worldwide. This can be taken as a positive assessment of the preparation of kindergarten teachers in the Faculty of Primary and Preschool Education of the Sofia University "St. Kliment Ohridski".

As mentioned at the beginning, new expectations of teachers lead to the need for building new skills, but we must not forget that, as Rasheva-Merdzhanova (2012: 18) claims, "restructuring the outlook and requirements for people and education" should unfailingly lead to a qualitative transformation of "the list of key competences of the modern teacher, so that the teacher's professional shape is pedagogically adequate"; teachers shouldn't be constantly given new responsibilities on top of the old ones, which often lessens the quality of the teacher's interaction with children. Therefore, although we support the idea for the

need for a wide basis formed by the knowledge, skills, competences and qualifications of kindergarten teachers, we do not condone taking things to extremes, and we are in partial agreement with the opinion of Ra-sheva-Merdzhanova (2012), that "the evolution of the profession should be followed by a change in the competence priorities", not just cause ad-ditional responsibility to be heaped upon the teacher, which could at some point prevent the teacher from focusing on his/her basic functions. It is positive that the presented research does not demonstrate such in-clinations in the concept of a "good/quality kindergarten teacher", as de-fined by the future primary and preschool teachers themselves.

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The quality of elementary school education: teachers' qualifications and competences

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Abstract:

For the purpose of specifying the concept of the quality of preschool education, this publication presents part of the results of a wider study aimed at researching the notion of the "good/quality kindergarten teacher". 72 students preparing to become preschool teachers in the Faculty of Primary and Preschool Education of the Sofia University "St. Kliment Ohridski" in Bulgaria took part in this research. The main method used for research is analysis of the students' individual written essays on the subject "My idea of a good/quality kindergarten teacher". The collected essays were subjected to qualitative analysis aimed at the distribution of the contained opinions regarding the essence of the notion of "good/quality kindergarten teacher" into an unlimited number of semantic categories, provisionally divided into two main groups: 1) general personal qualities, skills, attitudes, etc.; and 2) specialized professional qualities, skills, attitudes, etc. This paper presents the distributions of 136 categories, defined following the analysis of the data. Since half of the participating students (36) were approached at the beginning of their university education and the other half (36) participated during the middle of their last year, the publication specifically marks some of the most important differences in the relevant viewpoints of first-year students in comparison to the opinion of graduating students.

Keywords: good teacher; quality kindergarten teacher; quality in preschool education; personal qualities; specialized professional qualities, skills, attitudes, etc.

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The Role of School in Preventing the Marginalization of Poor Students

For years, the problem of material shortages has been a subject of interest to representatives of a number of scientific disciplines. A particularly important issue is the poverty of children. UNICEF, in its latest report on poverty among children, reveals some alarming statistics: 30 million children in 35 OECD countries live in poverty, and more than 13 million children in the European Union do not have access to basic goods, necessary for their normal development <http://www.unicef.pl/Co-robimy/Prawa-dziecka/Biezace-dzialania/Biezace-dzialania/Ubostwo-Dzieci-Raport-UNICEF> (14.12.2014)).

The basis for the increasing inequalities are, inter alia, rapid changes, as a result of which more and more people live below human dignity (Marynowicz-Hetka, 2005, p. 9).

The main purpose of this article is to undertake a theoretical analysis on the students affected by material poverty and the role of the school in overcoming this problem, respecting the dignity of the people who experience it. The research problems are as follows: What are the causes of the marginalization of poor students? How can the school counteract the exclusion of poor students? What is the role of the peers of students from poor families?

1. Material poverty – a problem of humanity

Poverty is one of the largest and most common problems facing the world. There are countries where only a small part of society is poor, but

there are also some where poverty affects a significant or even predominant number of people. The effects of poverty do not extend only to the poor, but also – especially with regard to its persistence and prevalence – to the rest of society, including the well-to-do in material terms, as they raise many adverse phenomena, ranging from the biological and social degradation of the poor and their families, to pathological behaviors such as alcoholism, drug abuse and crime (Sztumski, 1995, p. 43).

This situation arises from injustice, which is not lacking in today's world. It happens when some people acquire a disproportionately large share of the riches, and then isolate themselves from the rest of society (Zuziak, 2003, p. 73). There is a wide gap between people, which is evident in an increase in the number of people in extreme groups of the lowest and the highest income and the automatic reduction in the size of the group with an average income. This situation favors the extension of the poverty and social problems related to it. The problem, however, is not in the fact of material possession, but in the way we use it.

Wealth often increases risks associated with selfish greed, the lust for possession, sloth, erotic seductions and unfairness. This, in turn, causes a threat both to the community and to the individual (Zwoliński, 2002, p. 251). Plato, in his major work *The Republic*, asserts that a person trying to gain wealth intensifies their own greed, which becomes a major obstacle in their spiritual development. "Excessive wealth extremely relaxes, creates a lap of luxury and triggers subversive actions" (Plato, 1994, p. 113). The problem of "unnecessary needs", which distracts man from what really counts and what fills human life with meaning, was also noticed by the ancient Christian moralists. They called on us to search for real values, thanks to which we will "grow" as a person, when they were complaining about so called *polyktemosyne* (having an exaggerated number of things) (Plato, 1994, p. 52–53).

War, hatred and the division of humanity into the rich and the poor contribute to poverty, and hence to the dehumanization of those who must endure it. The power of the needy and unlimited quest for prosperity multiplies the concentration of both material and spiritual poverty. And, even though food production is increasing faster than population

growth, a significant number of people die of hunger. Children are in a particularly difficult situation. The cause of this is a big waste of livelihood in the hands of the rich, while this could actually feed all the hungry (Plato, 1994, p. 272). The ground of the growing poverty is also mainly in the capitalist economy and the resulting unemployment, as well as in the inability to exist in the new system due to the habit to place the causes of action in relation to State institutions. This situation is made more difficult to overcome because the institutions responsible for social assistance do not have adequate funds to help people in need and restrict their support to the most drastic situations.

Children are those who feel penury most acutely. They often suffer because of hunger and malnutrition. From the earliest years of their lives, they grapple with inequalities in access to healthcare, education or culture. "Child poverty is not just a childhood in penury, but also the danger of being poor in their adult lives. There is also the danger of a generational transmission of conditions, excluding individuals and entire families from various forms of participation in social life, launching them to the margins of social life" (Tarkowska, <www.eapn.org.pl/expert/files/Ubostwo%20dzieci.pdf> [14.11.2014]).

2. Marginalisation of the poor students

 People affected by poverty, limited by the economic barrier, may not fully meet the standards of participation in social life, while poor students are not always able to adapt to the realities of school life. This is most often connected with the exclusion, rejection and isolation of poor children and young people. In the literature on the subject, the term subculture of poverty is used to describe people excluded because of poverty. The man who "is caught within the influence of the subculture, is subject to many psychosocial mechanisms determining his attitude and behavior" (Mańka, Roter, 1995, p. 232).

As a result, students affected by poverty fall into even greater poverty . They have a sense of inferiority, rejection and lack of acceptance

(Mańka, Roter, 1995, p. 232). In such a situation, a big role and responsibility lies in the hands of the entire school environment, who, by helping the needy, has a chance to protect them from permanent and increasing physical and moral degradation.

A poor young man, due to the situation he faces, has limited options in choosing the roles which are put in front of him by school and peers. The inability to fulfil those roles makes people around the young person assign them a "label" and its characteristic features, behaviors and attitudes (Mańka, Roter, 1995, p. 232). As a result, this individual is pushed to the margins and is not accepted in their environment. Over time, this person begins to actually behave in the way they are expected.

Poverty, if it is not properly addressed by the public, leads to the depersonalization of both the poor and those living in the midst of the needy. The former group receives a label, are rejected, pushed into the margin and stigmatized, and the latter do not use the chance to fulfil themselves as people. They prefer an easy life, filled with criticism of those who are in a difficult situation.

Everyday school life provides many examples of the stigma, marginalization and exclusion of poor students. It can be easily observed when school trips are organised for the whole school, rather than for the class, because the cost exceeds the capabilities of students within a class unit. So here are multi-day trips to attractive places, aimed at the integration of students, which in fact, merge only the wealthy, and exclude the poor (Tarkowska, Górniak, Kalbarczyk, 2006, p. 32). In this way, the students at school receive a kind of "s t i g m a s y n d r o m e" (expression by author) associated with their origin (Kwieciński, 1995, p. 172). Branding, stigmatization and bullying are ever-present phenomena at schools (Dudzikowa, 2004). In the case of students living in harsh material conditions, this has particularly destructive consequences for their educational aspirations.

The segregation occurring in schools takes different forms. Examples include: separation of classes with better and worse students, meals (free and paid), trips for wealthier students, and many others (Tarkowska, Górniak, Kalbarczyk, 2006, p. 32). This type of action can be conscious

and unconscious, explicit and implicit. Particularly dangerous are the situations in which these practices are not carried out intentionally, because then no one sees their destructive educational influence.

3. The personal implementation of marginalized students – a challenge for a school

Students from poor families often have low educational aspirations. "[…] Children living in community houses do not pay attention at lessons, they lack successes in learning, they fear teachers, school is a stress factor" (Matyjas, 2008, p. 185). Undoubtedly, this is due to the relationship between parents and children and to the lack of a home atmosphere. Parents do not have time for their children, do not deal with them properly, they do not praise the child who is often left alone.

The aim of the idea of equalization of opportunities is, "that the achieved education level is not correlated with the characteristics of students assigned by birth" (Konarzewski, 2001, p. 136). A family dealing with poverty and unemployment has a destructive impact on all its members, particularly children. This family is not able to buy school books and school aids and help with learning difficulties. Those in need often do not find support in educational institutions. The researchers emphasize the significant role of nursery and early childhood education in the process of opportunities equalization. This is not conducive to the process of liquidation of kindergartens and the lowest percentage of children attending kindergartens in Europe (Tarkowska, Górniak, Kalbarczyk, 2006, p. 30).

The education system in Poland has a lot of features that point to the existence of mechanisms for maintaining or even increasing social differences. According to the critics, this situation has occurred as a result of a misconception. It turns out that it is not junior high school, but kindergarten and the first grade of elementary school that decide to equalize opportunities (Tarkowska, Górniak, Kalbarczyk, 2006, p. 30). Czesław Kupisiewicz goes even further in his reflections, saying that "There was, and still is no appreciation of the fact that, in many cases, educating children

is the only way to overcome poverty and to interrupt the vicious circle of cultural deprivation" (Kupisiewicz, 2006, p. 133).

Students from poor backgrounds face numerous problems including: the lack of educational aspirations, career patterns, with no place to learn, as well as numerous psychological barriers such as low self-esteem, lack of confidence and faith in their own abilities. Other difficulties which are being experienced by poor students are associated with the purchase of textbooks (despite a set of textbooks and workbooks, granted by social assistance centres at the beginning of the school year). These children often cannot expect help from their parents in homework. Tutoring, which is fashionable today, is out of the reach of students from poor families, which puts them at a disadvantage.

In addition, the lack of money for commuting and school aids, the lack of understanding from teachers and peers and exposure to shame and humiliation associated with different shortages may discourage them from attending school, eventually contributing to the early end of education. According to the researchers, children from poor families, with low cultural capital and from neglected and marginalized communities, "deprived of education at home, do not find it at school, either" (Lustig, 1996, p. 67).

Schools, whose fundamental mission is education and the upbringing of children, should be included in the wider area of social assistance. They have a chance to play an invaluable role in reducing poverty, if properly organized. John Paul II, addressing the issue of education and poverty, stated that it is impossible to solve the problems of poverty without including education (John Paul II, 1987, p. 23–24).

Why do the activities carried out by schools for poor students bring so poor results? What prevents the institution closest to the child – right after their own family – from being able to stop the poverty, from helping the student to have the chance to "go far" in spite of his material situation? A study by Eliżbieta Tarkowska, Katarzyna Górniak and Agnieszka Kalbarczyk revealed the following problems (2006). First of all, the school's didactic function is dominant over its caregiving and educational role. Teachers are not prepared to deal with the problem of poverty, to work with students and parents from poor homes. A major concern is

to downplay or not notice poverty, or even deny its presence at school. It is also characteristic to come across the attitude of: "poverty is a problem for social welfare institutions". Schools lack a system for finding solutions in the field of action against poverty; favouring ad hoc aid over long term aid. The help offered by school often brings negative effects, causing the stigmatization of students from poor environments (Tarkowska, Górniak, Kalbarczyk, 2006, p. 31–32).

The schools' directors offer financial assistance, inter alia, of the motivational nature, coming from the funds granted for this purpose by the directing body. This assistance is targeted to students who have obtained a high average academic achievement in the semester preceding the period of the award of the scholarship or have obtained excellent results in sporting competitions at, at least, the extramural level.

As part of the material aid, there are also programmes organized by the Ministry of National Education, which are supposed to meet the costs of learning, at least, partially. This primarily means a set of textbooks needed for children from poor families, who have just started learning.

An important form of assistance is the provision of free meals at schools. The most important source of this type is the government program: "State aid in the field of nutrition". All poor children from families whose income per person does not exceed a certain amount of money are allowed to take part in it (Banasiewicz, www.wrotamalopolski.pl [08.04.2009r.]).

Looking at the approach of schools to students from poor families, it can be said that the schools focus mainly on complementing the current shortage. Among the actions with long term effects, there are extracurricular activities aimed at raising the students' knowledge, circles of interest and compensation lessons (Tarkowska, Górniak, Kalbarczyk, 2006, p. 32).

Educators must be trained to create such conditions so as to foster the intellectual, ethical and emotional development of the students, which would make the supreme moral values, such as: life, science, work, fatherland, truth, goodness and beauty the signs of their lives and the prime trigger of their personality development. This upbringing, focused

on fundamental values, especially on the dignity of the person, becomes the right direction towards humanity.

4. Forms of assistance to the needy students

The attacks on the neediest ones confirm that, paradoxically, the more a man gets as he apparently reaches the top of his humanity, the weaker and poorer he becomes. Why are there so many atrocities at a time when the world has dozens of conventions, constitutions and other acts to protect human life and dignity? Krzysztof Warecki and Sebastian Karczewski (2004), making this reflection, quote a sentence uttered by politicians and educators that the only authentic friend of man is a morally healthy family. That's why it so is essential for every government to care about the family's physical and spiritual well-being. Only in a healthy family can a child learn about love, without which the world cannot live in peace (Karczewski, Warecki, 2004, p. 10–12).

What is the role of the modern school in the field of material poverty? It should, above all, try to remove people, at an early age, from the non-personal existence (Verhack, 1999, p. 80), to help people immersed in poverty in the wider sense. It should also help children to understand the meaning of existence and themselves from the inside out, which means a lot more than the ability to meet the needs of the individual.

Material and social support provided for the children from the school is not an antidote to a child's exclusion from peer groups. There is an urgent need for a policy of redistribution, which assists children in a non-stigmatising way, not by increasing unemployment benefits, but by opposing the exclusion of poor children by classmates in a manner worthy of a human being.

How should we, therefore, help poor students? "School is not only a place for the education and upbringing of young people, but also for the provision of assistance to students who need it, for example, due to health status, personality characteristics, learning disabilities, and, especially nowadays, material aid for the sake of the family" (M. Łoskot, 2008).

The quality of elementary school education: teachers' qualifications and competences

It's usually at school where the first problems and troubles resulting from the impact of a disadvantaged child's family are revealed. "An important operation of the school is, first and foremost, to accurately diagnose the circumstances, in order to obtain the broadest possible knowledge about the situation of students, alumni" (J. Stec, 2008). It is very often a teacher who is the first person that tries to direct a child and his family to the relevant institutions in order to obtain aid to prevent the aggravation of certain dysfunctions. "Help for a child from the poorest of families should be provided comprehensively and coordinated by school so that their family does not have to look for help in various institutions and with various results" (M. Łoskot, 2008).

A very important form of any school's assistance to its poor students is the school's emphasis on the learning process, overcoming school failure, achieving good educational results, creating opportunities and prospects for the future, which in turn results in real equalization of educational opportunities for children and young people from poor families. In addition, extracurricular lessons are long-term activities aimed at raising knowledge (Cęcelek, 2010, p. 8).

Direct material aid to poor students in Poland is granted by the voyt, Mayor or President of the city, from targeted subsidies in the state budget. It is distributed to students who are in difficult material circumstances resulting from the low income of their family. Within the scholarship, a student may apply for the partial or total cost of participation in educational activities and educational material aid, such as the purchase of textbooks or school supplies (Banasiewicz, www.wrotamalopolski.pl [08.04.2009]).

In addition, non-governmental organizations carry out the feeding of underprivileged students, especially the Polish Humanitarian Action, which has developed the programme, *Pajacyk (Puppet Clown)*. Recently, it has also become possible to finance school meal programmes through grants from the EU. Despite these additional actions, there is still a large number of children in need who do not receive meals (Banasiewicz, www.wrotamalopolski.pl [08.04.2009]).

5. Children and young people versus people in need

Work on the evolution and development of social skills is one of the essential components of social prevention which has the greatest chance of success among children (Śliwerski, 1999, p. 78–101). It is because very young people, unlike adults in middle or old age, are not burdened with negative stereotypes and syndromes about those who do not succeed in life. Axiological void of the transition period additionally justifies the promotion of such values and attitudes as the dignity of the person and respect for the dignity of another human being, honesty, tolerance, subjectivity (Melosik, 2001, p. 19–21).

If a man at home, at school, at the age of a child understands what it means to serve those who have material problems, they will always be ready to support others. Different activities which alert children to the problem of hunger and poverty play a very important role in the today's world. Some examples include: "Children to nameless children" (Piotrowski, 2007, p. 106–107), collecting money, clothing and toys for the poor at home and abroad, contributions to a sick friend or a colleague, all fundraisers held before Christmas, aid to victims of natural disasters, or to missions.

Also, all forms of involvement of young people in voluntary work are worth mentioning. Children and young people have been working for the sick, disabled, addicts, children from deprived backgrounds, children and youth with learning difficulties, elderly people living alone, unemployed, homeless and at risk of becoming homeless, victims of natural disasters and residents of poor and neglected regions of the world. In addition to the work done directly in agencies, young volunteers organize different events and collections. Thanks to their work they acquire financial resources which shall be forwarded to the mission, the purchase of medicines or food (Kosiedowska, Braun, 1997, p. 45).

The involvement of young people in voluntary work is also evident in child education-caring, sociotherapeutic day-care rooms, in orphanages, social welfare homes and in a number of non-governmental organizations and institutions. Young people often become systematic

(long-term) volunteers or one-time (short-term) volunteers – when there is a specific need (*How to find and keep the volunteer*, 2003, p. 19).

In educating people to overcome poverty, it is essential that the poor themselves learn to respect each other and not to view their situation as victims who have to endure it as a punishment. Experiencing poverty can become a valuable lesson for the rich and show them what values are the most important in life. In fact, it is the interior of a man that decides whether we call him rich or poor. Clement of Alexandria speaks these words in the above case: "So truly and beautifully rich is a man rich in virtues […] and he is seemingly rich who lives in the lap of luxury and puts his life in external goods – because these pass away and vanish, some day someone else will take them, and in the end, no one will possess them anymore" (Clement of Alexandria, 1953, p. 13).

The beauty of poverty lies in courage, through which many of the poor still do not lose hope. Although poverty itself, hunger or the cold do not inspire awe, the willingness to disregard them, smiling and continuing life without a doubt, are worthy of everyone's admiration. They teach a valuable lesson, especially now, for a substantial majority enslaved by lust for possessions.

Conclusion

Extensive literature on poverty, particularly poor families and children, shows their helplessness in different spheres of life. Poverty is taking a devastating toll on the lives of the entire family. Parents cannot afford textbooks and school aids. Statistics show that education in Poland only appears to be free of charge. In addition, families affected by poverty are not aided by educational institutions. Tomasz Szlendak writes about "the overshadowing of preschool education and family education in the socialization practice of state and local governments" (Szlendak, 2003, p. 14).

Undoubtedly, therefore, a very important challenge for the modern school is to seek a new paradigm that could form the basis for today's

discussion on the issues related to the life of the poor and support for those who want help. One-off donations, all kinds of funding, while undoubtedly constituting a valuable help, constitute help only in the short term. Moreover, the reform of the education system, geared toward leveling educational opportunities is designed to begin at the middle school, not kindergarten, which puts into question its effectiveness (Tarkowska, <www.eapn.org.pl/expert/files/Ubostwo%20dzieci.pdf> [14.11.2014]).

Approaching the problem of poverty, schools may undertake various activities in order to prevent social marginalization concerning children and young people from poor families. In addition, schools should change stereotypes, thus emphasizing the value and dignity of every human person.

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Abstract

Poverty, if it is not properly viewed by the public, may lead to the deper-sonalization of both poor and living in the midst of those who need help. Poverty is experienced by children in a specific way. They often suffer from hunger, they are undernourished, and they have limited access to a variety of goods, includ-ing culture and education. This, in turn, is often reflected in their self-esteem, a sense of self-dignity.

The role of the school in fighting the poverty of the students is shown in this article. The existing forms of aid to poor students are presented, as well as the challenges facing the school in terms of helping marginalized students. It is also crucial for the teachers themselves to be trained in such a way that would promote not only the intellectual development of the students, but most of all – the pro-social attitudes and that would emphasize the value and dignity of a person.

Keywords: person, human dignity, students' poverty, self-fulfilment.

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The Preconceptions of Children at a Preschool Age on the Topic of the Air and the Weather

The topic of the air and the weather are themes that children face daily, both in communication with adults and in the media. They perceive verbal formulations which adults often express in connection with the air or the weather, and on the basis of this, they shape their own interpretations of these phenomena. This topic is also anchored within the curriculum of pre-primary education.

In preparing teachers of pre-primary education for certain educational activities, it is first important to identify the child's knowledge of, and experiences with, the given topic. The teacher should know what the children's preconceptions are, in order to be able to follow and tune in to such situations which would awaken in the children a refreshing of their current knowledge and a development of the children's imagination.

In our literature, as well as in foreign literature, we come across several terms, e.g. children's preconceptions, children's naive theories, student's perception of the curriculum, pre-concepts, children's conceptions, children's science, implicit child theories, everyday knowledge, but also error conceptions, wrongful understanding or misconceptions (e.g. Gavora, 1992; Mareš, Ouhrabka, 2001; Held, 2002; Höfer, Prokšová, 2003). B. Pupala (2001) states that other terms provide, at the same time, different views of authors regarding the knowledge of a child. In connection to this, he explains that it is due to an objectivistic-methodic approach and an ethno-methodological approach. In the first case, "…the content structures of children's knowledge are confronted with their associated objectified cultural contents", secondly "…prior criteria do not have to be

present when identifying, analyzing and evaluating 34 structures of the children's knowledge" (Pupala, in Kolláriková, Pupala, 2001, p. 211). A child's preconceptions show the teachers how children understand the world and the happenings within it, where B. Pupala (in Kolláriková, Pupala, 2001, p. 211) talks about "…a scheme of contextually coherent cognitive structures" that "…are relatively stable and subjectively strongly fixed." The author adds that the cause of this is coherence and relative meaningfulness. Sometimes, the child can acquire knowledge sketchily, verbally and at the same time, he also retains his own interpretation of the phenomenon. In such a way, the school (scientific) knowledge that he uses to solve school tasks, can also co-exist with his own (naive) interpretation of the phenomenon, which he uses when solving life situations. B. Pupala (in Kolláriková, Pupala, 2001, p. 212) explains the reasoning and origins of children's preconceptions by abduction – procedure, "…in which a hypothetic rule is searched for in order to explain the case, so that this case would be explained as an application of a rule." In pedagogy, it is about a basis for understanding the children's knowledge. Children's interpretations of phenomena have a cognitive component, including the understanding of the phenomenon and an affective component that includes the relationship towards it and its evaluation (Gavora, 1992; Mareš, Ouhrabka, 2001). J. Mareš with M. Ouhrabka (2001) also add a conative component to these elements. B. Pupala (in Kolláriková, Pupala, 2001, p. 209) raises a question in connection with children's preconceptions "…how to deal with children's knowledge in schooling, i.e. how various teaching situations (or conceptions) participate in influencing the children's outlook on the world." He sees the solution to be the anchoring of a theme of teaching by a context that relates to the children's preconceptions. It depends on the interpretation of the child's experience, on the content and the semantic structure of a preconception and its reflection by a child, "…by the confrontation of scientific representation with an individual variant of conceptualisation of some phenomenon when "reading" particular concepts" (Pupala, in Kolláriková, Pupala, 2001, p. 214). Topic mediation, as well as the interpretative reaction to it, requires reflection through speech, with which its social and

cultural context is underlined in the knowledge process (Pupala, in Kolláriková, Pupala, 2001).

In the paper, we have devoted scope to the detection, analysis, interpretation and development of children's preconceptions on the topic of the air and the weather.

Finding out children's preconceptions on the topic of the air and the weather

Our aim was to identify and describe the preconceptions children at a preschool age have on the topic of the air and the weather and to propose options for their development. From such a formulated objective, the following tasks emerged:

- to devise a research tool focused on studying the preconceptions children have on the topic of the air and the weather (Table 1),
- to determine a research sample and implement an entrance interview,
- to propose a development program for pre-primary education (elaborated in a separate publication),
- to implement a proposed developmental program in pre-primary education,
- to implement an exit interview,
- to formulate recommendations for pedagogical practices.

We used a structured ***interview*** to find out the children's preconceptions. P. Gavora (2010) explains that the research interview is a planned scientific method, in which the researcher asks the respondent questions, and his answers are recorded. The external manifestations of the respondent can also be seen during the interview and then, according to this, the rest of the interview may be guided.

Similarly, A. Wiegerová (2011), refers to the diagnostic interview as an appropriate method for detecting the initial impression of a given

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phenomenon. She explains the differences between unstructured, structured and semi-structured interviews, while recommending a semi-structured interview as the most appropriate in science education, in which there is the possibility for the "free addition" of clearly formulated questions, according to the situation, which may occur in the interview with the child.

We conducted the entrance interview individually. We asked each child the same questions, and we created a peaceful, credible atmosphere. The children had the opportunity to not answer the questions or to answer, "I do not know". We explained to them that they could say what they wanted, and that we would talk together about everything later on. Here are the questions, together with the expected correct answers, depending on how we explain selected aspects of the topic of the air and the weather to the children, during the implementation of the proposed developmental program.

Table 1. Structured interview – the expected correct answers

STRUCTURED INTERVIEW (entrance - exit) Questions with possible correct answers
1.   Have you heard the word air before? What do you think it means? It is all around us; it is a mass; it is a gaseous substance; we call it the atmosphere; it can be hot and cold; warm air is lighter than cold air, it rises up.
2.   Can we see, hear, smell or feel the air? It is invisible; it may have a smell and taste depending on where it is, for example smoky air, the air above a flowery meadow, etc.; we can hear it in the form of wind and drafts; we can hear it while cycling, while running; it can be calm like water in a glass; we can see the movement of the air on the bending branches of trees, on the leaves, on laundry hanging up to dry, on hair blowing in the wind, on the clouds; we can feel it while running or cycling; we can prove the presence of air through drafts, and blowing through a straw into a glass of water.
3.   Can the air have pressure? What does it mean? Air pressure is the force applied within the air (in the atmosphere).
4.   What is the wind? What do you know about the wind, does it have speed or power? It is the motion of air masses. We distinguish between calm, a breeze, a light wind, a strong wind, a whirlwind.
5.   What can we see in the sky during the day, except for the Sun? Clouds.

6. Are the clouds always the same?

No; they change shape and colour, they can be white, grey, dark grey; we know different types of clouds: low, medium, high.

7. Where do the clouds come from?

Water vapour rises from the water, at a high altitude in the cold air it changes into small droplets, to ice crystals, which bind together and form clouds.

8. Are clouds necessary?

Yes, water is essential for life in nature.

9. What is fog?

The same as a cloud, but it is close to the ground; during fog, visibility is poor.

10. What is a storm?

Rain, which lasts for a shorter time and finishes fairly quickly; heavy rain, where a lot of water falls down in a short time and clouds are rapidly moving; during a storm lightning can also be seen and thunder can be heard.

11. Why is there lightning and thunder?

Water droplets and ice crystals in the cloud are moving; they crash into each other and charge with electricity. When the charged clouds come closer together (with opposite charges), a spark jumps between them (accompanied by lightning effects and a high temperature), hence the flash. Lightning, during a storm, rapidly heats the air that it passes; this suddenly increases its volume. The sudden movement of air produces thunder.

12. What is dew?

These are small water droplets, which appear on the surface of objects in the morning or in the evening (the hotter the air, the more water vapour will be maintained, when it cools down, part of the water vapour is precipitated and converted into droplets of water).

13. What is hard rime?

Frozen dew.

14. What is a rainbow?

The colours in the sky during simultaneous sunlight and rainy weather: red, orange, yellow, green, blue, blue-violet (indigo), purple.

15. Where does rain come from?

From the clouds.

16. Where does snow come from?

From the clouds.

17. What is the weather?

The changes that are happening, which we observe in nature, we perceive within the air - warm, cold, wind, rain, snow, a lot of clouds, a sunny day…

18. What weather do you like the most and why?

Subjective responses by the children, associated with the weather.

NB: The information that is difficult to understand is given in brackets, which is more for use by the teacher than by the children.

The teacher asked the children the aforementioned 18 questions, while some questions also included supplementary questions. Not all of the children's answers in the interview fell within the prescribed structure (Table 1), therefore, other responses were evaluated individually and in the context of the whole interview.

A complementary method during the implementation of the developmental program was the analysis of the children's work, namely an ***analysis of the children's drawings.*** This method is used mainly in pre-primary education, because children at a preschool age cannot read and write. A. Wiegerová (2011) states that an explanation of the children's drawings is necessary to supplement with a discussion about the drawing.

In our survey, we were not diagnosing children through their drawings. They were only a survey of the children's preconceptions, about the addition and clarification of the data obtained using the interview.

We elicited preconceptions from twenty 5–6 year-old children attending kindergarten. The children were from two classes in a selected kindergarten, which was willing to join the project. The teacher carried out the proposed project simultaneously in both classes. For the reasons of the anonymity of the children, we do not provide the name of the kindergarten in which the survey was carried out.

An analysis and interpretation of children's preconceptions on the topic of the air and the weather

We analysed the children's answers to the individual questions, both at the entry and exit interviews. We present a brief analysis of the children's responses.

The children listened attentively to the questions, were interested in answering and cooperated with the teacher, but some had difficulty in answering them. They looked unsure mainly in the first questions, while

the supplementary questions and the encouragement of the teachers that it was not a problem if they did not answer the question helped them. Sometimes, the children were concise with their answer, but if they had experience with the content of the questions, they also expressed their experiences. To some questions, a one-word answer was enough, or an affirmative or negative answer.
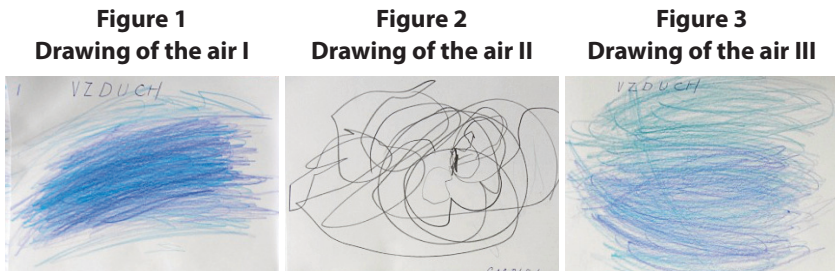
When asked the first question in the entrance interview, **have you heard of the word air and what do you think it means,** half of the respondents could not answer it. Some children associated the air with the wind, some with breathing ("It's good for people, because they can breathe") and one child said, "It is steam". From the children's answers, we can see that no-one had explained to them the meaning of the term air and thus, even if they had a spontaneous idea of what the term means, they could not define it, they could only put it in the context of other phenomena.

On the second question of whether **we can see, hear, smell or feel the air**, only one child could not answer. The majority of the surveyed children claimed that we could not see the air. The majority of the children that had heard of the term air associated it with the wind, only two said that *we cannot hear the air,* some said that *we can feel the air*, others said that we cannot feel it, but none of the children indicated that we can smell the air. In contrast to the answers to the first question, the children were able to clearly answer and express their sensory feelings associated with air.
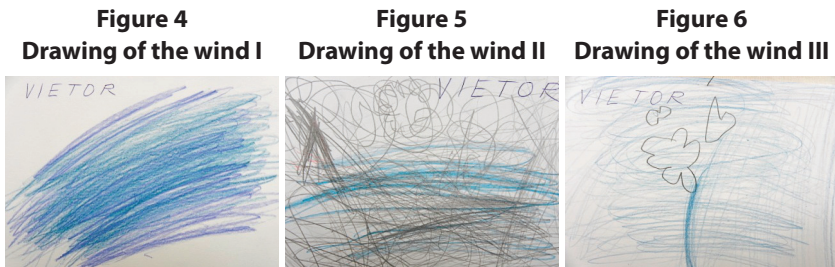
In the third question, relating to air pressure, **can air have pressure, what does it mean, is air pressure necessary**, in the entry interview only two children responded to such an effect that air pressure is a lot of air, and it is very strong air. The others could not express themselves at all. Air pressure is a complex topic, and hence, we did not expect a definition of that term from the children. We were interested in what they imagined under that term, or whether they had heard it mentioned somewhere before. Out of curiosity, we can indicate how one child associated the term air pressure with the term blood pressure: *"You put it on your arm at the doctors and it is being measured".*

In addition to answering the questions in the interview, the children drew their ideas on the topic of air. In Figures 1–3, drawings of the children's preconceptions about air are shown.

In the aforementioned drawings, it can be clearly seen that before the implementation of the proposed developmental program, the children had only a general idea about the air. The drawings are very similar. The children filled an A5 sheet of paper with lines; the difference was in the colour of the lines (light blue, dark blue, grey, black, green), in the pressure that the kids used to draw the lines with the drawing materials (crayons), in the direction of the drawn lines, and in their number. Alternatively, in some drawings, there was a hint of clouds.

Figure 1	**Figure 2**	**Figure 3**
Drawing of the air I	**Drawing of the air II**	**Drawing of the air III**

When asked ***what is the wind?***, a third of the children were completely unable to comment on the question, almost half of the children knew that the wind blows ("It's blowing the air that moves around the globe"), they used the terms weak, strong, tough, and two children said that the wind does not always blow, and that sometimes it is calm.

Figure 4	**Figure 5**	**Figure 6**
Drawing of the wind I	**Drawing of the wind II**	**Drawing of the wind III**

The drawings of the wind (Fig. 4–6) looked noticeably like the drawings of the air. In an artistic representation of the wind, the children mostly used "doodling", thus drew it like flowing air. In one of the drawings, leaves floating in the wind appeared (Fig. 6).

When asked **what can be seen during the day in the sky, except for the Sun?**, almost all of the children responded that there are clouds (*oblaky*), while one child extended the obligatory response of *clouds*, by using the term *white clouds* and one child used another term for clouds (*mraky*). One of the children defined clouds as follows: "*Well, they are something like fur, but they are a bit airy and we could get to them. If we would fly up by a rocket and break them, there would be a hole there.*"

When asked **whether clouds are always the same**, only one child in the entrance interview could not answer, while the others answered correctly that they can be different, e.g.: *"Bigger, smaller, they always move."* *"Sometimes totally black, sometimes white, due to the storm and some are pushed aside by the Sun." "Sometimes they remind us of the Moon, they have the shape of a star, a doggy, a horse."*

On the following question, **where do clouds come from?**, one correct answer was heard, and only one child used the word steam. Others could not answer, or responded incorrectly ("*They give the wind").*

Are clouds necessary? – that was the sixth question in the entrance interview, to which only two children knew the correct answer *("Yes, for plants and trees, they must drink, it rains from the clouds"; "Yes, in order for flowers to grow and also fruits and vegetables").* The other children either did not respond at all or indicated that clouds are not necessary *("No, they are not neces-sary, because then there is a storm, and neither the sky nor the Sun can be seen").*

From the answers to the seventh question, **what is fog?**, it was shown that the children had experience with fog, albeit only half of the answers could be considered to be correct, e.g.: "*The same as clouds*", "*You cannot see through fog*", "*It is such a thing that we can see, but we cannot see the things that we want to see. It appears, when there is a lot of air.*"

Lightning, thunder and rain are terms that often appeared in the answers to the question **what is a storm**? E.g.: "Lightning and a huge rainfall can start." "That there is lightning, thunder and it is raining."

The question, ***why is there thunder and lightning?,*** was more diffi-cult for the children. The children did not know the correct answer and in the answers, such statements were heard as *clouds collide*; *that the light-ning is from a heavy downpour; thunder is lightning; warm air* comes into collision *with cold air; Little Jesus sends down the lightning,* and so on.

What is dew? - that was the twelfth question, and in the entrance interview, more than half of the children could not answer it, and only one child explained it properly: they are the *drops* on plants, and one third of the children answered the question in relation to water, rain ("*That the grass is wet*"). Some children thus thought that dewdrops are caused by rain, for example: *"It is rain that fell to the forest on some flower or plant, or even into the garden."*

At the entrance interview, not even one child knew the answer to the question, ***what is hard rime?***, or attempted to explain this term in their own words.

When asked ***what is a rainbow?***, one child imagined candies. Al-though the others knew what a rainbow is, only two of them knew how it appears ("Once, when I was in the garden, I saw how it rains and the sun is shining at the same time"). Not even one child could properly name the colour spectrum in the entry interview ("A colourful thing that looks like a hill, red, brown, pink, blue, purple, and sometimes white").

The question of where does rain and snow come from was easy for the children, they said from the clouds or from heaven. ("Raindrops are up in space and those drops fall into the clouds and from the clouds they fall to the ground.")

The penultimate question was directed towards the children's pre-conceptions about the weather. When asked ***what the weather is***, a third of the children in the entry interview could not answer. The children re-sponded, for example: the weather is when it *rains*, *snows* or *the sun is shining* or *snow*, *storm* and *rain*. Only two children tried to define the con-cept of the weather:

"The weather is when Mother Nature gives us some weather, whether it is warm or cold. Seasons are when the globe rotates to spring, summer, au-tumn, winter, and into the Ice Age."

"In order to show how nature is changing, whether it is happy or sad."

On the last question, **what kind of weather do you like the most and why?**, two children did not answer in the entry interview. Almost all of the children used words associated with the Sun in the last answer *("In order not to rain, I prefer the summer, so that it is not snowing.")*.

On the basis of the survey and the description of the preconceptions of the children, it can be said that the teacher had real details about the children's knowledge of the weather for the upcoming topic, through the proposed development program. The children had only a minimal knowledge of what the air is, or could not create their own definition of this term. The answers to the second question, related to the air (whether we can see, hear, smell or feel), told us that the children knew very little about the air. The same could be said about the question about air pressure. When asked about the wind, we found out that the children had a problem describing the wind. According to the children's responses to the questions about the clouds, we deduced that, although the children could easily distinguish them, they had only a slight knowledge about them. They were able to characterise a storm, but even in this area they had some reservations. It was a surprise that not one of the children knew what hard rime was and only some children knew what dew was. Not even half of the children gave a correct answer to the question about rainbows. All but one were aware of this natural phenomenon, but their knowledge, as shown by the entry interview, was very superficial and inadequate. It was similar with the question about where rain and snow come from. We were surprised that several children could not answer the question about the weather and that they had a problem explaining this abstract term. In contrast, when answering the last question, they responded that they like sunny weather the most, so it was clear that despite that, this term is not unknown and they can spontaneously use it and understand it during a conversation.

On the basis of the results of the entry interview, we designed a developmental program which includes various investigative activities designed to explain the concept of air and all of the natural phenomena associated with the weather.

Developing children's preconceptions on the topic of the air and the weather

Every fact that the child finds through their own activity is a great discovery for him, so it is necessary to give him as much incentive as possible for exploring, testing and searching for answers (Kopáčová 1997, 2009). Therefore, within the proposed development program, investigative activities are implemented, e.g. handling, demonstration, discovering and experimentation, but also art, music or drama activities.

We orientated ourselves within the available specialist literature with a natural science focus (Bennett, Smith, 2003; Bézuelová, 2003; Bohuněk, Kolářová, Janovič, 2000; Hammond, 2007; Lorbeer, Nelsonová, 1998; Melicherčíková, Melicherčík, Rochovská, 2012; Schmidt, 1972; Vosátka 1968; Weiss, 1996), in order to obtain topics for investigative activities, as well as scientific information about phenomena related to the theme of the air and the weather. Through the Internet, we acquired engaging and current pictorial material for children, to go with individual investigative activities.

Prior to the realisation of the project, during its preparatory stage, we investigated children's preconceptions about the air and the weather. We focused on obtaining a picture of the knowledge and experiences of children on the topic of air and the natural phenomena associated with the weather – clouds, rain, snow, wind, hail, fog, dew, hard rime, rainbows and storms. Based on the findings, we planned investigative activities focused on an understanding of these natural phenomena, but we also planned many supporting activities with an artistic, musical, motion or drama focus, based on the experiential learning of children. Primarily through artistic activities, during the implementation of the project, we wanted to acquire a picture of how children understand the individual activities, what is their favourite, etc. The drawings by the children were carried out with crayons on A5 paper, so that they could comment on the topic in the easiest possible way and in a comparatively short time.

The aim of the project was to develop children's preconceptions about the air and the weather, so that through the completed investiga-

tive activities they could gain a more realistic and more specific under-
standing of the natural phenomena associated with the air and the
weather, and also develop vocabulary related to this subject.

Altogether, 13 research activities were designed and implemented
and two concluding summarising activities related to the air and the
weather, with all activities having the same structure. The main objective
of this activity is broken down into partial objectives, subsequently im-
plemented in organisational forms, didactic methods, material didactic
resources and sources of literature, which were the inspiration for the pro-
cessing of the activities. We have described in more detail the progress of
the activities and a reflection from their verification in the kindergarten.
Also important for the teacher is the specialised information associated
with the topic activity, which can be particularly useful in the event of
unexpected questions from the children. The presented scientific infor-
mation is, however, necessary in order to present them in an appropriate
form, in order for the children to be able to understand the explained
natural phenomena and secondly so that the teacher does not give the
children scientifically unacceptable information. It is an extremely chal-
lenging task which requires pedagogical mastery from the teacher, es-
pecially in terms of responsibility and creativity.

We present an illustration of one of the activities, the intention of
which was to introduce children to the formation of a rainbow.

Exploring activity – Rainbow

Objective of the Activity: to describe the formation of a rainbow in
one's own words.

Partial objectives: Describe the conditions for the creation of a rain-
bow. Name the colours of the rainbow. Propose a method for the artistic
portrayal of a rainbow and implement it.

Organisational form: frontal, individual.

**Didactic methods:** controlled discussion in a large group, drawing,
brainstorming.

The material didactic resources: photographic material, visual aids
(drawings, colouring pencils, brushes, tempera paints…).

The course of the activity:

The teacher induced the topic of the rainbow through the question of whether it is possible for it to rain at the same time as the sun is shining. This was followed with a demonstration of a rainbow by the means of a glass of water, white paper and the use of sunlight. The glass was placed on the paper, so that sunlight could pass through it, while the greater part of the paper was in the shade. The sun's rays, passing through the glass of water, were split into the seven colours of the spectrum, and a rainbow was created on the paper (Fig. 7).

Figure 7
Demonstration of a rainbow
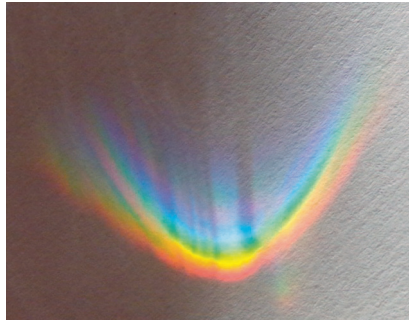
Furthermore, the children, in conversation with the teacher, focused on the colours of the rainbow. They recited them first on the basis of observations from the demonstration, and later on the basis of the pictorial material which the teacher had prepared for them.

During further activity, they worked with coloured strips of textiles which had the colours of the rainbow. They could spontaneously figure out, with the help of these coloured strips of textiles, how to create a rainbow. Then they created a rainbow through drawing, painting and the gluing of raindrops (Figs. 8, 9).

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**Figure 8
The resulting product – Rainbow I**

**Figure 9
The resulting product – Rainbow II**

Specialised information for teachers, associated with the given activity:

A rainbow is an exceptional meteorological and optical phenomenon. We can watch it on a raindrop lit by the sun's rays, at an angle of 41.5°–42.5°. Under suitable conditions, it might result in a drop of water having two reflections, and thus also an ancillary rainbow, which is of a weaker intensity, and can be observed at an angle of 50.1°–51.9°, while it is over the main rainbow and the colours within it are in reverse order (red is in the inside of the curve).

Sunlight, which most commonly appears as white, is in fact composed of several colours - red, orange, yellow, green, blue, blue-violet and purple, which correspond to different wavelengths (Table 2). At the interface of the two environments, the light reflects and refracts into a new environment. The angle of refraction for each wavelength is different. When a light beam penetrates into a raindrop, white sunlight is spread over the entire visible spectrum.

The circular shape of the rainbow has nothing to do with the shape of the Earth or the shape of the Sun. A rainbow has the form of a circular arc because a drop of water has a spherical shape. Rays of light fall on a drop not only in one plane, but in all planes, therefore, we see a rainbow as an arc around an axis, where the observer is directed by a shadow cast

by the Sun. Therefore, from mountains or from an aeroplane, a rainbow is observed as a closed circle.

Table 2. The wavelengths of light of the various colours

Colour	Wavelength λ [nm]
red	780 – 630
orange	630 – 590
yellow	590 – 550
green	550 – 480
blue	480 – 450
violet	450 – 420
purple	420 – 380

(Source: Melicherčíková, Melicherčík, Rochovská, 2012, p. 28)

Reflection on the activity:

The children did not have a problem responding correctly to the initial question from the teacher. They were only wrong when reciting the colours. However, after carrying out activities (a demonstration of the rainbow, games with coloured textiles and art activities), they were able to recite the colours of the rainbow. When evaluating their work, some of the children saw that they had drawn the colour spectrum in the reverse order. The teacher responded to the situation with an explanation that a rainbow could also be formed in reverse (Fig. 9). However, the goal of the activities was not to recite the colours of the rainbow in the correct order, it was only about being aware of what colours make up a rainbow.

In the exit interview, in response to the question of what is a rainbow, the children recited almost all of the colours, although they made mistakes concerning the order of the colour spectrum. The biggest problem for them was caused by the colour indigo. The correct answer to what causes a rainbow to occur was indicated by almost half of the children.

Sources of literature for processing the activities: Hammond, 2007; Gahér, 2003; Melicherčíková, Melicherčík, Rochovská, 2012, p. 28.

Conclusion

Natural phenomena fascinate children beginning from the earliest ages. Here, it is possible to stress the role of the educator, so that at every stage of education he will be able to bring children closer to seemingly complicated natural phenomena and actions in an appropriate manner, with a search for optimal methods, so that every child's soul is satisfied, which is naturally a curious soul that lacks explanations about the happenings of this unique world and the life within it. To move the cognitive level of children in the desired direction is one of the necessary duties of educators.

When verifying a proposed developmental program focused on developing children's preconceptions about the air and the weather, it was confirmed that children had actually developed their preconceptions, which was evidenced by their answers in the exit interview. It was also noticeable that their vocabulary related to the given issue had been enriched under the influence of this developmental program.

It is very gratifying for us that the realisation of the proposed developmental program is not our final step for the introduction of innovative, progressive methods and formats in the educational-upbringing process. We have come to the conclusion that it is necessary to continue on this path, that during investigative activities children feel like fish in water, it is completely natural for them to develop their thinking, to reason, and to broaden and deepen their knowledge. Last but not least, we must not forget that the aim of a pre-primary education is the personal and social development of the child, with an emphasis on personal experiences and playful activities with a positive approach to the child. According to O. Račková (2007), if there is any dispute about this central area of the development potential of personality, it can block, repress, call into question and traumatise their personal development and determine the trajectory of the school curriculum and children's success for a long-time.

All of the designated attributes have their place, especially in the proposed developmental program which we have presented in the publication, *Scientists in Nursery School* (Rochovská, Krupová, 2015), and we believe that it will be happily used in kindergartens.

Figure 10

The publication *Scientists in Nursery School*

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The quality of elementary school education: teachers' qualifications and competences

ARTICLES

Abstract

This paper is focused on the preconceptions of children at a preschool age on the topic of the air and the weather. The aim of the paper is to identify and describe the given preconceptions, to further analyse and interpret them and, on the basis of this, to propose investigative activities which would develop these preconceptions of the children. A structured interview was used as the method to find out the preconceptions among the children.

Key words: preconception, pre-primary education, children at a preschool age, the air and the weather.

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REPORTS
& REVIEWS

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Review of the publication: Dorota Klus-Stańska "(Anti)early education"

(Anti)early education is written by D. Klus-Stańska (editing), and includes some chapters by other authors: B. Śliwerski, M. Szczepska--Pustkowska, M. Cackowska, M. Żytko, all well-known pedagogists interested in early education who have written many books and articles on the subject. This work is part of a trend describing some urgent pedagogical problems at the elementary educational level. The writers claim that it is an introduction to the series of *Imperative Problems of Education and Pedagogy* that will be published in the future.

The book contains sixteen chapters, the first of which is written by D. Klus-Stańska and called: *The disintegration of identity and knowledge as a process and the effect of early childhood education.* The author demonstrates some forms of integration: integration as a consolidation, integration as an inclusion and integration as a network. These explanations are interesting, coherent and very useful for early education teachers and students. It helps the reader to fully understand integration and to compare the kind of integration that exists in Polish early education to the integration that exists in other European countries. Moreover, it helps teachers to put the idea of integration into practice. The author expresses a critical opinion of the condition of the Polish form of integration, and she proposes some new solutions to educational problems at that level of education.

The second chapter is written by B. Śliwerski, the author of the composition titled *The dysfunction of educational management. The disintegrated aspects of educational policy to early education.* It depicts the early

years of Polish elementary education levels during political educational changes. In his piece, B. Śliwerski describes: the stage of radical openness towards some pedagogical innovations in the area of elementary education, the legal support of teaching autonomy, the innovative education in public and private schools, the educational reforms of a centralized educational system to name a few. The chapter is strictly about political matters, and the language used is quite difficult for the average reader. However, it is interesting from a comparative educational point of view.

Chapter number three is written by M. Greonwald and it is enigmatically called: *the childhood as a sacrifice to show it might have lasted.* However, after insightful reading, one can understand the meaning fully. It discusses the matter of lowering the obligatory educational threshold and the duty of sending six-year-old children to school from 2014. The author objects to the point of view held by some politicians that claim that there are not any problems connected to that matter and it is suitable for all young learners. They cite some thriving educational systems in western and well-developed countries that introduced compulsory schooling, even for five-year-olds, a long time ago. The author criticizes the readiness of schools to take such young learners, mentioning inadequate facilities and the teachers' pedagogical approach that is suitable for older pupils (they do not understand the needs of 5 and 6-year-old learners, which is why they cannot fulfill them properly).

Other chapters are devoted to the economic situation of private kindergartens, the readiness of schools, the process of the socialization of preschoolers, the superstitions of gender in early education and the integration of such educational areas as mathematics and languages.

One of the most interesting chapters is *Language Education,* written by Małgorzata Żytko. The author proposes some solutions on how to integrate Polish language in integrated elementary education. Her ideas seem to be simple but very useful. Some teachers of early education might find inspiration in this chapter.

That book is a compendium of elementary education in Polish schools. It has both a theoretical and practical dimension. The knowledge

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that is represented in that publication is detailed, profound and comprehensive. The book is thoughtful and consistent.

The language used in the book is different in each chapter. Some are written in easy to understand language, while others include technical terms normally found in comparative educational studies, psychology and sociology. However, it can be understood by the average reader.

In the opinion of the reviewer, the book is intended primarily for teachers of early education and for trainers of teachers at that level. It can be useful for studying the pedagogy of the Polish educational system and for reflective thinking about its condition, especially at the elementary level.

The reviewer recommends this book strongly not only for pedagogists, but also for psychologists and sociologists that are interested in education. It helps the reader to think critically and reflectively about elementary education and to possibly draw some conclusions and ideas for his or her own practice.

Samuel Malecký (reviewer)

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Review of the publication: Andrew J. Milson, Ali Demirci, Joseph J. Kerski "International Perspectives on Teaching and Learning with GIS in Secondary Schools"

In many European countries, before the end of the first decade of the 21st century, crucial educational reforms were already implemented. The main instrument to influence teaching in schools seems to be curriculum reform. To fulfil the demands of a higher education learning environment, future teachers need to adapt to new competency and qualification trends. Therefore, these trends should be woven into the curriculum's content and structure. The aim of the review is to introduce the trends that can be applied in geography or homeland study education with GIS and geo-information technology support.

The publication *International Perspectives on Teaching and Learning with GIS in Secondary Schools* is an international comparative study of the use of geographic information systems (GIS) in secondary schools. It offers an unprecedented range of expert opinions on the educational value of GIS technology. Editors Milson, Demirci and Kerski, three GIS scholars, are the authors of the introductory chapter and the final synthesis chapter. Contributing authors of the remaining chapters are specialists in the area, and they present the use of GIS in relation to the national curriculum of 33 selected countries. Each chapter is divided into three sections – the first focuses on the description of the context of secondary education and GIS in the country, the second section focuses on a model or case study that illustrates using GIS, and the third section discusses related opportunities and challenges.

Some highlights mentioned in the publication are important to illustrate the fostering of a teacher's competencies when using GIS in secondary schools. This approach necessarily involves information (and ICT) literacy as a key component of lifelong learning. Moreover, student-centered pedagogy is required to improve learners' spatial literacy, which is crucial within geography education. Many chapters deal with options on how to improve those skills. Lifelong learning involves in-service training, hands-on training, workshops, seminars and courses, usually organized by teacher training institutes, the Ministry of National Education, universities or colleges.

The student-centered learning environment uses GIS as a problem-solving tool capable of developing the concept of spatial thinking. Activities focused on project-based learning, inquiry-based learning, game-based learning, collaborative learning, fieldwork and lab work are the most frequently mentioned in the content of the individual chapters. Additionally, contributing authors from Austria extend the concept of spatial citizenship adaptable for elementary education, which focuses competencies on communication, everyday orientation, and participation tasks.

Another important shift in teachers' qualification is the framework called 'Technological Pedagogical Content Knowledge (TPCK)', presented by Dutch contributing authors. This framework connects three main components of learning environments: content, pedagogy, and technology. It can be adapted to the needs of geography education as the GIS–TPCK model to present instruction on how to use GIS to stimulate progression in a student's geographic literacy.

The publication provides a significant shift towards understanding certain similarities between the selected countries in the field of geographical education with the use of information technologies, especially GIS, thus paving the way for international cooperation. On the other hand, significant differences have been revealed, such as a strong GIS education core in places such as Turkey, Norway, Taiwan and the UK compared to an insufficient computer infrastructure in Ghana, India and South Africa. In these countries, informed educators still promote geospa-

Review of the publication:
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tial technologies and teach how to think spatially. Instead of teaching with GIS, they teach about GIS. In South Africa, teachers use transparencies and other non-computer (paper-based) tools.

The question is how to develop spatial literacy within elementary education as well. This concept involves the use of digital geospatial and geo-information technologies, namely online mapping services, virtual globes, satellite navigation systems (e.g. cross-curricular activity Geocaching) and, marginally, GIS as a supplemental game-based learning tool. A web-based learning environment turns out to be an acceptable, time saving option for teachers. Alternatively, ready-to-use teaching materials that use inquiry-based questions can engage students in meaningful issues.

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