Abstract
The requirements for teachers’ expertise are changing according to the tendencies in education related to the implementation of inclusive education. This fact also concerns the field of pre-school education. The article introduces the current concept of pre-graduate preparation of pre-school teachers. It also presents the findings of the research in which we investigated the field of further education of teachers who already teach at schools. Furthermore, we present the positive features discovered and the investigated area issues. The research of inclusive education within the conditions of primary school and pre-primary school has been conducted since 2014 at the Faculty of Education, Palacký University Olomouc, Czech Republic. The research has been guaranteed by the Centre for Science and Research.

Keywords: inclusion, teacher, pre-primary school, research, education
Introduction

The strategy for educational policy in the Czech Republic generally aims at improving the results and motivation of children, pupils and students at all levels of the school system, from pre-school to tertiary education. It is based on the idea that education is to facilitate the development of every individual’s potential to the maximum extent possible. This idea must be promoted through an educational system that can generally create a safe and stimulating environment and motivate children, pupils, students and other participants in the education process to learn throughout their lives. Furthermore, such a system should create opportunities to educate children from an early age, and via early intervention promote the participation of children in pre-school education, in particular the children from disadvantaged backgrounds and ethncial minorities. Other priorities include good availability and permeability of all school levels for all social groups and supporting individual integration of children, pupils and students with special educational needs. In order to achieve these priorities, it is necessary to ensure functioning advisory networks and thus reduce the number of dropouts and the risks resulting from school failure. The important priorities also include promoting the assessment methods which aim at monitoring individual progress of each pupil and student. (Strategie vzdělávací politiky České republiky do roku 2020)

According to the document Strategie vzdělávací politiky České republiky do roku 2020 (Strategy for Education Policy of the Czech Republic 2020), inclusive education is one of the important priorities and it mainly involves ensuring the essential economic, social and educational conditions.

Based on an analysis of the current education system in the Czech Republic, three strategic priorities have been established:

- Reducing inequality in education;
- Supporting high-quality teaching and teachers as a prerequisite for such teaching;
- Responsible and efficient management of the education system.

The current priorities of education policy in pre-school education

The priorities above are closely associated with pre-school education, which forms an integral part of the education system. Various analyses conducted in the Czech Republic (hereinafter referred to as the “CR”) and OECD comparative analyses show the need to improve pre-school education, which is an important period in everyone’s life. The current rate of children’s participation in the CR pre-school education in the last year before entering primary school is over 88 % (in 2006 it amounted to 96 %). Despite the decrease, it is possible to say that the participation rate with regard to pre-school education is still satisfactory. Despite this high percentage, a new law has been passed, with effect from September 2017, to introduce compulsory pre-school education for the year immediately preceding the beginning of compulsory school attendance.
Since 2007 the CR pre-school education has been following the state curriculum which determines the basic framework for the school curriculum creation, depending on particular conditions of each school. Teachers prepare school and class curricula on the basis of the individualization principle, i.e. with respect for the child’s needs and interests, with the aim to support the development of child’s potential to the maximum extent possible.

Within the context of improving the pre-school education quality in the CR, the following measures have been adopted:

- Early recognition of child’s difficulties through diagnostics in pre-school period, ensuring their professional solution and thus eliminating the postponement of primary school entry (the above step is a response to the lingering high rates of the postponement of primary school entry, approx. 18%);
- Building up systematically the network of nursery schools and increasing their capacity and thus creating favourable conditions under which every child whose parents apply for that can be enroled in a pre-school education institution (currently the pre-school institutions prefer children who have one year left to start compulsory school attendance);
- Building up collaboration between families and schools;
- Increasing systematically the participation of children from groups and locations threatened by social exclusion in pre-school education;
- Starting a discussion on the content of educating pre-school teachers and the possibility to require their higher qualification (we mention only some of the measures concerning the investigated area).

As our studies show, the most frequent problems found in teachers’ work include the field of pedagogical diagnostics and project-based learning with the individualization principles. The above problem areas concern both common children and children with special educational needs.

**Inclusive education within the conditions of a standard nursery school**

Pre-school education institutions in the CR are normally attended by children aged between three and six (i.e. before starting compulsory pre-school attendance). In the CR this education stage is provided by nursery schools (including the nursery schools for pupils with special educational needs), primary school preparatory classes and the preparatory stage of special primary school. The education content is implemented in accordance with the pre-school curriculum, which also applies to the children with special educational needs. The curriculum establishes the competences the children are supposed to acquire within the scope of their possibilities by the end of pre-school education. As far as the children with special educational needs are concerned, the teacher together with their parents and school advisory services (and other experts if necessary) prepare individual education plan which should facilitate the children’s development taking into account their education possibilities. Another person who participates in educating the children with special educational needs is teacher’s assistant, who is also part of the school teaching team.
As can be seen from the brief description above, the pre-school teachers should possess quite a wide range of professional competences. In pre-school teacher’s work, in connection with inclusive education, it is important to monitor three groups of competences defined by the European Commission in 2005 in the *Common European Principles for Teacher Competences and Qualifications*. In order to develop every learner’s potential to the maximum extent possible and establish the foundations of an inclusive community, the teacher should be able to work with information, knowledge and technologies, cooperate effectively with participants of the education process and be able to work with a community at a local, regional, national, European and global level. (Komise evropského společenství In Bartoňová, M., Vítková, M. et al. 2013, pp. 78-79). The standardization of inclusive teacher’s competences was studied within the project *Teacher Education for Inclusion* by the European Agency for Development in Special Needs Education (2012). Four core values that represent the framework of essential competences were determined:

- **Valuing pupil diversity** – the areas of competences apply to the inclusive education concept and the manner teacher perceives pupil diversity.
- **Supporting all learners** – the areas of competences apply to strengthening the academic, practical, social and emotional learning in all learners and effective teaching methods in heterogeneous classes.
- **Collaboration** – the areas of competences apply to working with parents and families and education specialists.
- **Personal professional development** – the areas of competences apply to the teacher as a reflecting worker and the field of pre-graduate education as a basis for lifelong professional development and learning.

To ensure successful inclusive education, it is necessary to research into the area, with the aim to review the current situation, identify the factors that are involved in inclusive education, etc. In the CR, great attention to the research concerning inclusion is particularly paid by teaching researchers from academic backgrounds who focus on special education e.g. Vítková, M. (2008), Bartoňová, M. (2013), Ludíková, L.(2012), Souralová., E.(2017), Lechta, V. (2010).

The research study presented in the article deals with one of the significant factors, which is the competence of teachers for inclusive education in a standard nursery school. As researchers, we view the investigated area from the viewpoint of educators of the professional group concerned.

In the article we only present the selected areas of our research due to the limited extent of the text submitted. The first stage of our research was carried out at primary schools. It was an international research project (including the CR, Slovakia and Slovenia) and it is available in: Šmelová, E., Souralová, E. a Petrová, A. et al. (2017) *Social aspects of elementary school inclusion in the context of international research*.

**The self-reflection of nursery school teacher’s competence within the research context**

The Faculty of Education at Palacký University Olomouc (hereinafter referred to as the “FE PU”) has a long tradition in professional education of nursery and primary school teachers. The Department of Primary and Pre-primary Education is responsible
for education programmes for the given professional group, which have to meet the requirements and needs of teaching practice and be within the context of science development. As already indicated in the Introduction, inclusive education requires the educators to equip teachers with specific competences, which cannot be done without the perfect knowledge of educational practices in schools. We believe that special attention must be paid not only to pre-graduate education, but also to further professional education of teachers, for which our department prepares and offers education courses. These courses are taught within the Centre for Lifelong Learning at the FE PU.

Research questions and research objectives

Based on the above facts we face a fundamental research question: Is a nursery school teacher prepared professionally for inclusive education? What educational needs does a nursery school teacher have in an inclusive nursery school?

Partial research questions

Is the current school, from the viewpoint of teachers in Czech nursery schools in the selected region, ready to implement inclusion in the schools?
Do the teachers perceive any barriers during the process of implementing inclusion in the schools?
Do primary school teachers possess the knowledge and experience needed for inclusive education and do they feel competent enough to cope with this new form of education?

Research objective: To find out through a questionnaire investigation and interviews how the nursery school teachers view their own competence for inclusive education and how they view the conditions in the given field.

Research team:

- Researchers of the Department of Primary and Pre-primary Education at the FE PU in Olomouc;
- Lecturers of the Institute of Special Education Studies at the FE PU in Olomouc.

The research sample consisted of teachers in standard nursery schools in the Olomouc region. The Olomouc region was chosen deliberately as it is a region where the schools cooperate with the Faculty of Education and where are good advisory services. Thus we did not expect many problems.

Number of respondents:

The research sample was divided into two groups, depending on the length of professional experience, i.e. up to 15 years and over 15 years of teaching experience. For the purpose of our research project, we focused on the teachers with teaching experience under 5 years, who made up 41.6 % of all respondents. The table below shows the basic division. N=77.
Another variable we monitored was the subject of study the respondents had completed (see Table 2). The research sample included teachers who had studied a subject focusing on pre-school education (54.5%), qualified primary school teachers (5.2%), special education teachers (20.8%), assistants (6.5%) and other specialization (13%).

The research sample scope was sufficient for this research phase in which the aim was to uncover the essential factors that could impede inclusive education in pre-school institutions.

**Research method and data evaluation method**

For the research purposes the main research method applied was a questionnaire, which we had prepared and verified its validity and reliability. In order to supplement and specify some data, an unstructured interview with the respondents was also used.

**Research tool characteristics**

The questionnaire structured by ourselves was designed for nursery school teachers and included 23 items.

1. Input identification data – information for the respondents.
2. Population (demographic) items – sex, the length of teaching experience and subject of study completed.
3. The questionnaire items focused on the following:
Teacher’s self-reflection, their experience, further education of teachers, benefits of inclusive education, conditions for inclusive education and on the assessment of advisory services.

4. Final recommendations for teaching practice and improving its quality.

The questionnaire was approved by the Ethics Committee of the FE PU and its administration was in compliance with the anonymity principles and personal data protection in order to ensure the essential authenticity of answers.

Statistical procedure

The statistical processing of research data was partly carried out by the Computer Centre of Palacký University Olomouc.

The statistical computations were performed by means of the PSPSS systems in 12.0 for Windows and STATISTICA: StatSoft CR s. r. o., STATISTICA Cz (a software system for data analysis). The data description was carried out using the basic statistical characteristics of central tendency and variability (the arithmetic average, median, mode, minimum, maximum and the standard variance). The demographic data included the calculation of the absolute and relative frequency. The Mann-Whitney U test was also applied.

Research investigation

As far as qualification and age are concerned, the research sample is very diverse. Therefore it was necessary to set the unifying criteria for data evaluation (e.g. the length of professional experience and appropriate education).

Table 3: Respondents’ education with respect to inclusive education (%)

<table>
<thead>
<tr>
<th>Education with respect to SEN (%)</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>adequate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>48.1</td>
<td></td>
</tr>
<tr>
<td>maturita exam</td>
<td>2.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>further ed. (courses)</td>
<td>7.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>insufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41.6</td>
<td></td>
</tr>
</tbody>
</table>

The professional preparation for inclusive education was declared by 48.1 % (special education teachers, nursery school teachers – graduates of Special Education for Pre-primary School, and assistants). Only 7.8 % of all respondents said they had taken a course. Insufficient qualification was declared by 41.6 %. Based on these data, the professional preparation of pre-school teachers for inclusive education can be considered insufficient. We wanted to find out whether the teachers viewed their lack of professional preparation on the basis of their own experience.
Table 4: Experience with inclusive education (%)

<table>
<thead>
<tr>
<th>Experience (%)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>68.8%</td>
</tr>
<tr>
<td>no</td>
<td>31.2%</td>
</tr>
</tbody>
</table>

68% of respondents declared they had direct experience teaching the children with special educational needs. 31.2% of respondents said they had worked or were still working in a school with inclusive education, but they themselves did not work with the children with special educational needs.

In their work the teachers meet children with various handicaps. Most frequently, the respondents worked with mentally disabled children (37.7%), next were children with speech and language impairments (22.1%) and with ADHD (20.8%). The respondents had the least experience with children suffering from hearing impairments (7.8%).

Teachers can encounter a wide range of handicaps and their combinations. Thus it is quite evident that although the teachers with standard education know how to work with and develop pre-school age children, they cannot handle all of the issues associated with special education. Here the role of special education teachers and experts from special education centres comes to the fore. They are the professional mentors who continuously provide teachers with expert advice and cooperate with all participants in the inclusion process.

Table 5: Courses with the focus on inclusive education taken by the respondents

<table>
<thead>
<tr>
<th>Courses taken by the respondents (%)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>50.6%</td>
</tr>
<tr>
<td>no</td>
<td>48%</td>
</tr>
<tr>
<td>not specified</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

In view of the insufficient professional preparation and experience declared by some of the teachers, it is quite surprising that only 50.6% of respondents took courses with the focus on inclusive education.

The question is: Why do not a higher number of teachers participate in courses which are part of the teachers’ further education? There can be various answers. Here we applied unstructured interviews which uncovered possible causes: for instance, nursery school teachers mentioned the problem with substituting. Furthermore, the
courses are often too general, with a little focus on nursery school teacher’s work. Moreover, some courses are too expensive for the schools to afford them. Part of the teachers said they were "sated with education", and the problem of limited spare time was mentioned too.

At present a large number of primary schools and fewer nursery schools cooperate with faculties of education within the inclusion projects. Thus the education of this professional group becomes more systematic, it is free of charge and often carried out in the schools. In addition, the teachers cooperate not only with academic experts but also with field specialists with practical experience.

In our research we intended to find out where the teachers felt the greatest barriers to inclusive education.

The substantial problems declared by our respondents are shown in Table 6.

Table 6: The problems in the field of inclusion from the respondents’ point of view

<table>
<thead>
<tr>
<th>Substantial problems in children's inclusion (%)</th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>technical and material</td>
<td>10.4</td>
<td>27.3</td>
<td>32.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>qualified workers, assistant, incompetence</td>
<td>20</td>
<td>32.5</td>
<td>32.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>33.8</td>
<td>32.5</td>
<td>28.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>children's readiness, number of children</td>
<td>22.1</td>
<td>27.3</td>
<td>27.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specific conditions, little information</td>
<td>22.1</td>
<td>27.3</td>
<td>27.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this item we mainly focused on the inclusive education of children with hearing and visual impairments. These are the disabilities the teachers have the least experience with and at the same time it is the field in which they feel most uncertain and are most afraid of.

In the context with the previous item, it is quite interesting to see that the teachers do not have enough information, which corresponds with the teachers’ insufficient participation in further education. The graph also indicates teachers’ uncertainty, resulting from lack of professional knowledge and skills, which implies the question of how to work with those handicapped children and how to develop them?

Therefore it is possible to say that more than half of the teachers find inclusive education demanding and that they are uncertain in their work because they do not possess sufficient professional knowledge and skills for this type of education. In addition, they lack more effective collaboration with advisory services. Table 6 shows the difficulties the teachers are afraid of.
Table 7: Difficulties involved in inclusive education (%)

<table>
<thead>
<tr>
<th>Individual integration difficulties (%)</th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>technical, material and financial means</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>qualified workers, incompetence</td>
<td></td>
<td>35,1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none</td>
<td></td>
<td>27,3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specific conditions</td>
<td></td>
<td>36,1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>another handicap</td>
<td></td>
<td>7,8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Teacher competence for inclusive education

<table>
<thead>
<tr>
<th>Competence (%)</th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>excellent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,1</td>
<td></td>
</tr>
<tr>
<td>sufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50,6</td>
<td></td>
</tr>
<tr>
<td>partially sufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40,3</td>
<td></td>
</tr>
<tr>
<td>insufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As was mentioned above, Tables 7 and 8 indicate apparent doubts and uncertainty in the competence required (35.1 %). It is also quite surprising that some of the teachers believe the children in question do not need specific conditions (36.1 %). This fact probably results from an incorrect interpretation of the term “inclusion”. Furthermore, the teachers think the current professional preparation for the inclusion process is only partially sufficient (50.6 %) or insufficient (40.3 %).

Our research included the issue of the number of nursery schools with a special education teacher who ensures the teaching team professional management in the inclusion process. We found out that although 57 % of the schools involved had a special education teacher, only 9.1 % of the teachers assessed positively their competence for inclusive education.

The context of items Special education teacher in the school and Teacher competence for inclusive education showed a statistically significant difference. Since the special education teacher cooperates with other teachers and manages professionally the inclusion process, we expected some progress in the teachers’ professional development. However, the research study did not confirm our assumption.
Table 9: Overview of statistical significances

<table>
<thead>
<tr>
<th>Variable</th>
<th>Length of exper.</th>
<th>Experienced</th>
<th>Courses</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>20</td>
<td>a : b</td>
<td>a : f</td>
</tr>
<tr>
<td>Competence</td>
<td>0.677</td>
<td>0.741</td>
<td>0.701</td>
<td>0.992</td>
</tr>
<tr>
<td>Hearing</td>
<td>0.301</td>
<td>0.232</td>
<td>0.496</td>
<td>0.411</td>
</tr>
<tr>
<td>Eyesight</td>
<td>0.372</td>
<td>0.227</td>
<td>0.258</td>
<td>0.104</td>
</tr>
</tbody>
</table>

Table 10: Special education teacher in the school – competence assessment

Our research confirms the necessity to improve the professional preparation of pre-school teachers for the inclusion process, with the focus on skills interconnecting theory and practice, particularly the specialist disciplines with teaching practice the students perform during their studies. The research showed the absence of systematic further education in the field of inclusion. The teachers themselves consider insufficient qualification to be the greatest barrier to the inclusion process in which they lack the essential professional competences. It is necessary to make further education courses more attractive (selecting appropriate education methods and forms) and also cooperate more closely in issues dealt with by the Faculty of Education. The educational means that seem to be more and more effective include workshops supplemented by video records, microteaching, analyses, etc.

**Conclusion**

The issue of professional competence in connection with teacher’s personality can be considered from the general point of view, i.e. the competence for teaching profession itself, or from the specific point of view, which means the competence for teaching a given age group. As is well known from practice, even experienced teachers find themselves in situations in which they are uncertain about what to do and how to react, thus they might assess their abilities and skills as insufficient for handling such a situation. *What are the possible ways of intervention?* Bandura (1997) says that change in perceiving our own competence can occur only if a convincing feedback destroys our existing mistaken ideas of our capabilities. However, the older and more experienced the teacher is, the more stable is their perception of their own competence and consequently, the more difficult is to change this perception. Our results confirm this idea as older teachers with professional experience over 20 years tended to be
more critical. To sum up, teachers do not need any kind of preaching, but effective communication with all participants in education.
References


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