Professional Competences of Preschool Teachers for Working with Gifted Young Children in Slovenia

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Abstract
Recognizing giftedness in young preschool children presents an important challenge to all educators. Because giftedness needs nurturing, the aim of the research was to emphasize the importance of gifted children’s right to adequate educational opportunities, which will stimulate the optimal development of their potentials. In order to achieve the latter, appropriately qualified preschool teachers are needed, in both diagnostic (the identification of the preschool gifted children) and educational field. The main purpose of the study (N=180) was to analyse professional qualifications and attitudes of preschool teachers in the area of identifying and working with gifted children from age 2 to age 6. The non–experimental causal method was used. The results of the research in Slovenia show the following problems: preschool teachers are inadequately informed about the issues concerning working with gifted children; they tend to have low self–competence in identifying personal characteristics of gifted children and in the appropriate use of teaching strategies when working with them; they stress the necessity for further education and professional training in the field of gifted children education.

Keywords
gifted children, preschool teacher, professional qualification, in-service professional training

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Introduction
Nowadays a particular focus is given to the new discoveries in the field of early identification of potentially gifted and talented children, the development of their intelligence, talent, creativity, and other areas of their individual abilities. Physical, social, and cognitive development is rapid and variable in young children and it’s important to identify the giftedness as early as possible since it is also genetically determined. Studies show that gifted pre-schoolers are less frequently acknowledged within the gifted education research and literature; they can be described as those who show promise of performing at high levels because of their advanced or/and accelerated development (Clark, 2002; Smutny, 1998).

Children should be given many opportunities to experience, explore and develop their ability and proficiencies. But to assure high quality level of education, preschool teachers need to be aware of their responsibility to foster the potential and unique characteristics of gifted children.

Teachers who are involved in teaching gifted learners without being adequately trained in the area can obstruct the development of children’s interests and potentials (Geak and Gross, 2008; Szymanski and Shaff, 2013, p. 20). Strmčnik (1995) believes that the most difficult obstacle of preventing faster development of gifted child, are exactly weak awareness and low qualification of the teaching personnel resulting in a non-stimulating atmosphere.

Researches (Ferbežer, 2005; Hodge and Kemp, 2008; Kukanja, 2006; Pfeiffer and Petscher, 2008; Pfeiffer and Jarosewich, 2003; Renzulli et al. 2009) draw attention to the problem of insufficiently qualified or even unqualified teachers in the area of identifying the characteristics of gifted learners and further work with them. Kukanja Gabrijelčič and Čotar Konrad (2013) highlight that issues are found not only in identification, but primary in terminological (in) comprehension among teachers. The expressions used for giftedness in Slovenia are: high learning performance, talentedness and giftedness. We argued that the terminological definitions of high learning efficiency, as above average capacity and abilities of an individual demonstrated as high learning performance are coherently linked to the term giftedness. Our findings point to insufficient definition of giftedness and especially of talentedness in Slovenian space and to interchangeable use and interpretation of the terms in relation to learning efficiency (Kukanja Gabrijelčič and Čotar Konrad, 2013).

According to Gross (1999) “teachers who have had no training or in-service in gifted education, and who are reluctant to use standardized tests of ability and achievement, may rely only on gifted behaviours to identify extremely high
abilities in young children” (p. 211). This may compound the problem by ignoring early indicators of demotivation and underachievement.

On the basis of their study Pegnato and Birch (1959 in Dobnik 1998) also found out that teachers are not sufficiently qualified for identification of gifted children. They claim that in the process of identification teachers tend to leave out rather a lot of them, while they ascribe giftedness to ungifted children, most often to those more conformist. This is why identifying the potential for giftedness that emerges in some preschool children is particularly important during the early years of their rapid development.

Karnes et al., (2005) stated that “without early identification, potentially gifted preschool children are at risk for developing early signs of underachievement, characterized by lack of interest in academic endeavours and tendency to hide their abilities in order to appear more similar to the typically developed children with whom they are associated in the school settings” (p. 25).

Professional development and training of preschool teachers for working with gifted children

Modern school is in need of socially intelligent, pedagogically and psychologically competent educational leaders. The competences of teachers need to be acquired in interpersonal relations, leadership, and social skills (Child, 2004; Day, 1999). Furthermore the Commission of the European Communities (2008, p. 12) states that well qualified teachers need to achieve subject, psychological and pedagogical knowledge. To assure the adequate learning and other experience of the gifted, preschool teachers must have (Kukanja Gabrijelčič, Čotar Konrad, 2013; Kukanja Gabrijelčič, 2014):

(i) the knowledge to recognize the source and the nature of the capacity of gifted children;
(ii) the knowledge and understanding of cognitive, social and emotional features, needs, and any specific difficulties gifted children may face;
(iii) the knowledge, use, and access to advanced contents, information and ideas;
(iv) the capacity of developing differentiated syllabi for meeting the unique interests, intellectual and emotional needs of gifted children and facilitating independent learning;
(v) competence for creating safe and encouraging environment that allows gifted children to express their uniqueness – establishing a learner-centred environment.

Similarly the programmes offered by the National Association for Gifted Children (NAGG) consist of the following content clusters: knowing and identifying the characteristics of gifted and talented students; recognising different needs of gifted students; proactive development of meaningful learning experience; ongoing assessment of children’s progress; adequate use of
various didactic strategies to assure progress; individual approach to learning and teaching (NAGC, 2013). Further, the education policy of NAGC exposes the responsibility of teachers in dealing with various cognitive and affective needs of gifted students and with optimal development of their potential.

Besides NAGC, CEC (Council for Exceptional Children) has published standards for programmes of training for gifted students’ teachers. According to CEC all teachers should understand and know theoretical contents in the area of terminology, characteristics and identifying gifted students – including twice exceptional learners; recognise learning differences, developmental milestones, cognitive and affective characteristics/needs of the gifted and talented; know and adequately perform various didactic strategies, differentiate and individualise educational activities and encourage critical and creative thinking (NAGC – CEC Teacher Preparation Standards in Gifted and Talented Education, 2013).

Issues regarding teachers’ competences in Slovenia are explicitly exposed in White book (The White Book on Education in the Republic of Slovenia 2011), which enforces to achieve the highest levels of professional training for the identification and individualised education of gifted and talented children. Teachers can improve the knowledge regarding gifted/talented education through different programmes for further professional education or/and acquire it on different levels of university studies. In this context we must, however, point out the contradictoriness of empirically substantiated fact (Kukanja Gabrijelčič, 2014): a review of the provision of further education and training of teachers revealed that in Slovenia there’s a lack of necessary attention to gifted and talented teacher training. The catalogues of programmes of further education and training of educational professionals (2010–2014) in fact do not contain concrete, subject-specific and preschool thematically elements for gifted and talented education at all (Kukanja Gabrijelčič, 2014).

Studies show that professionally qualified teacher of gifted in comparison with unprofessionally ones demonstrate: i) better pedagogic skills and the use of various didactic strategies in teaching; ii) better capabilities of knowing and identifying gifted students and their needs; more positive attitudes toward gifted students; iii) faster student progression and achievement of better learning outcomes; iv) larger number of divergent questions; v) use of critical and creative thinking (Geake and Gross, 2008; Hansen and Feldhusen, 1994; Silverman, 2013; Reis et al., 1998; Rizza and Morison, 2003; Westberg et al., 1993). In their latest study also Cosar, Cetinkaya and Cetinkaya (2015) found that generally, gifted school teachers believe that completing educational processes with preschool age training, as a supplementary one, is beneficial for talented students in terms of bot socially and academically.
Although research has confirmed that professional teacher training and development changes teacher attitudes, enhance teacher’s sense of self-efficacy (the belief and capability to organize and enact appropriate activities) and promote greater proficiency, understanding and application of relevant competencies (Croft, 2003:566). Extensive in-service preschool teacher training in gifted education can significantly increase teacher effectiveness and nomination forms in gifted children identification and further education (Gross, 1999).

**Main problems in Slovenian preschool gifted children education**

The Slovenian preschool awareness of gifted children development is still impoverished, there’s also (too) little reflection on the development of their talents (Ferbežer, 2005). This is confirmed by the legislative preschool education documents (as Curriculum for Kindergarten, Kindergarten Act, Programming guidelines for the in kindergartens and the Law on directing children with special needs), where potentially gifted or gifted children are not mentioned and there are no further recommendations or specific approaches for their further education.

The terminology in the field of gifted and talented preschool education is not adequately conceptualized. Although gifted or highly capable children are those who ability and specific competences fall within the upper 10 percent of the achievements of the population (Colangelo, Assouline and Gross, 2004; Gagne', 2011), this common definition in Slovenia is not used. Witty (1940 Kukanja Gabrijelčič and Čotar Konrad, 2013) also talks about "the potential talent" or superiority. Gifted children in Slovenia are being described as those with the characteristic protruding learning achievements and results, in any field of human activity (ibid).

Identification of potentially gifted preschool children is quite complex and professionally challenging work, as formally comprising a variety of psychological tests and other methods of gathering information (Ferbežer, 2005) about the child in the most "sensitive" and fast-changing period. In Slovenia this raises the question of the advisability of formal psychological testing of gifted young child. The fact is that the use of testing to define the stages of a child’s intellectual functioning level in rapidly progressive child, are less credible and unreliable. From this perspective, it is much more efficient identification of inconvenient, potentially gifted child by teachers who daily observe the child. But unfortunately also the observation with check lists in Slovenia is not frequently used.

We also highlight the main problem of inferior qualifications or even the lack of qualifications of preschool teachers in the identification, working and knowledge of the characteristics of gifted children.
Method
In the present study the non-experimental causal method was used. The main purpose of the study was to analyse professional qualifications and attitudes of preschool teachers in the area of identifying and working with gifted children from age 2 to age 6.

Sample
In the study 180 preschool teachers were involved (93.2 % female, which corresponds the population relationship in the gender structure of educational staff in Slovenia (Čotar Konrad and Kukanja Gabrijelčič, 2013) with average age 39 years (M=38.80, SD=9.75). On average the educational staff had 14 years of work experience (M=14.5, SD=10.58 on the interval 0-38 years).

Instruments
For the purpose of this study we designed a questionnaire on identifying and working with gifted and talented children in total consisting of 10 items on a four/five point Likert scale. It consists of four demographic questions and six longer closed end questions where on the background of individual assertions the participants assessed their general and specific preparedness for work with gifted young on a four or five point scale. The participants assessed individual assertions using a 4-point scale (1-seldom or rarely, 4-always; example of such an assertion is “Estimate how often encouraging and taking account of expressing ideas and conceptions was a characteristic of your involvement in working with gifted children”) or a 5-point scale (1-completely unqualified to 5-very well qualified; example of this type of assertion is “How do you estimate your professional qualification for work with gifted children”).

Procedure
Data were gathered in March 2015 with the support of an Internet form of questionnaire. The data were analysed with the programme SPSS 20.0. Participation in the survey was entirely voluntary and took place in accordance with all required ethical research standards.

Data Analysis
For analysing the data the descriptive and inferential statistics was used. The distribution of teachers’ degree of agreement (frequencies) and teacher profile variables were analysed using tests for non-parametric data (chi square). Other correlations between parametric data were analysed with Spearman’s correlation coefficient.

Results
The main purpose of the study was to analyse professional qualifications and attitudes of preschool teachers in the area of identifying and working with gifted children from age 2 to age 6. We depart namely from the premise that inadequate understanding of giftedness and insufficient preparation of
preschool teachers can lead to inadequate or insufficient use of learning methods, forms and activities in working with gifted children. In this framework we formulated three research sets:

i) the extent to which preschool teachers are informed about the area of identifying and working with gifted children;

ii) self-assessment of preschool teachers, their qualification or lack of qualification in the area of identifying and working with gifted children;

iii) iii) analysis of interests and needs of preschool teachers for further professional education and training in Slovenia.

In continuation the results by each basic set of the study are presented.

**Self-assessment of preschool teachers on the extent to which they are informed about the topic of gifted young children, the need for working and identifying their characteristics**

First the preschool teachers were asked in what extent working with gifted young children during regular preschool classes was necessary and urgent at all. The results show most preschool teachers consider working with gifted young children necessary and urgent (90.6 %), only 3 of them (1.7 %) claimed that they don't agree with the statement, other (7.8 %) were without opinion ($\chi^2 = 266.23, p < 0.001$). Table 1 show preschool teacher’s self-assessment on information they’ve received about gifted young learners and their needs.

**Table 1. Self-assessment of preschool teachers on being informed about the topic of giftedness**

<table>
<thead>
<tr>
<th>Being informed (N=120)</th>
<th>F (%)</th>
<th>$\chi^2$</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1 (1.2 %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not know</td>
<td>78 (65.0%)</td>
<td>61.06</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>No</td>
<td>43 (33.8%)</td>
<td></td>
<td></td>
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</tbody>
</table>

The results show that the majority of preschool teachers report they are extremely poorly informed about the complexity of the preschool education of gifted children (see Table 1): only one respondent shared the opinion that he/she was (sufficiently) informed (1,2 %). More than one third of preschool teachers claimed that they were not at all well informed about the preschool education of the gifted (65.0%, $\chi^2 = 61.06, p < 0.001$).

The following research question was “Is it possible to identify gifted young children in early years?” and the answers were quite surprising as 96.3 % of teachers agreed with possible identification of children and only 3.7 % of them replied that this is not possible. Despite the claim that it is possible to identify gifted young children at early age, preschool teachers reported that they are not enough trained for recognize main characteristics of gifted children (see Table 2).
Table 2. Recognizing characteristics of gifted young children

<table>
<thead>
<tr>
<th>Recognizing giftedness in young children (N=180)</th>
<th>F (%)</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>22 (12.2%)</td>
<td>102.75</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>No</td>
<td>158 (87.7%)</td>
<td></td>
<td></td>
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</table>

Even there are a lot of characteristics that can signal that a child might be gifted, teachers’ highlights better recognition of giftedness in general cognitive characteristics of intellectually gifted pre-schoolers (87.7%).

Finally, preschool teachers estimate they did not get enough information about giftedness and working with the young gifted during their pre-service training ($\chi^2(2) = 102.75, p < 0.001$).

Data obtained revealed that preschool teachers agreed that they did not get enough information about giftedness and working with the preschool gifted child during their study ($\chi^2(2) = 9.48, p < 0.001$).

Next research question was about comparison of the degree of information of preschool teachers on the topic of giftedness by the period of information obtained.

Table 3. Comparison of the degree of information of preschool teachers on the topic of giftedness by the period of information obtained

<table>
<thead>
<tr>
<th>Degree of information</th>
<th>None / Very little</th>
<th>Moderate</th>
<th>Much / Very much</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time of information</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During study</td>
<td>54</td>
<td>15</td>
<td>8</td>
<td>78</td>
</tr>
<tr>
<td>On the job</td>
<td>15</td>
<td>29</td>
<td>32</td>
<td>76</td>
</tr>
<tr>
<td>In spare time / on own initiative</td>
<td>10</td>
<td>33</td>
<td>34</td>
<td>77</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
<td><strong>77</strong></td>
<td><strong>74</strong></td>
<td><strong>231</strong></td>
</tr>
</tbody>
</table>

Most of preschool teachers claimed that they received most information about gifted young children in their spare time, by their own initiative. Regardless the source of teachers' education about gifted children we examined the level of teacher application of knowledge in practice. Specifically, we were

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3 Research conducted in Slovenia showed education of teachers for work with gifted students is provided within the permanent professional training (Bezić, 2011). It has been proved that programmes are inadequately designed, as they do not contain concrete, subject-specific topics or various opportunities of gifted children education (Kukanja Gabrijelčič, 2014). In undergraduate studies the integrative approach prevails (the content of working with gifted students are discusses in the framework of certain pedagogical and psychological subjects), while in graduate study programmes at education faculties of all three Universities in Slovenia there is an independent, mostly optional study subject.
interested in extent of which preschool teachers (who thought working with the gifted was important and urgent) apply differentiated lesson plan and strengthen the high potential of gifted students in their workplace. The results namely show the correlation between a teachers’ assessment of the necessity and their concrete work with the gifted was low, but significant ($r = 0.21, p < 0.5$). Thus we can conclude preschool teachers’ awareness of the necessity of working with the preschool gifted children can be a factor contributing to their actual work with them in a differentiated way. But, however, that is not sufficient condition that teachers will really develop and apply differentiated lesson plan in order to encourage the potential of gifted preschool children.

Self-assessment of preschool teachers on their level of qualifications in the area of identifying and working with gifted young children

The analysis revealed that preschool teachers mostly assess their qualification for working with gifted as satisfactory (55.6 %), while only a little less than a tenth (9.6 %) of preschool teachers estimate themselves to be very well qualified. On the other hand, more than an only third of participants (34.8 %) assess themselves as insufficiently qualified for working with gifted children. More detailed analysis of specific teachers’ qualifications in different areas of knowing the characteristics and the work with the gifted shows teachers assess themselves as the most (yet still moderately) competent primarily in the area of encouraging creativity (78.8 %), and they see themselves as poorly qualified both in the area of recognizing personal characteristics of the gifted child (6.2 %), as well as in the area of special didactic demand of the work with gifted children (15 %).

Analysis of interests and needs of preschool teachers for further training in the areas of identifying and working with gifted young children

In the last research question we focused on the education of preschool teachers in specific areas of identifying and working with gifted children. First we were interested in finding what they use most frequently as the source of information about identification and working with gifted preschool children (see figure 1). Results revealed that teachers most frequently look for additional professional literature and other sources on their own initiative, they seek information the least frequently with their workmates.
Although preschool teachers express great need for different kinds of education and further professional training, we can detect significant dissatisfaction with the provision of this kind of specific training courses by the umbrella educational institutions (National Education Institute, Ministry of Education, etc.) ($\chi^2(3) = 98.10, p < 0.001$). Most participants declare namely not sufficient care is dedicated to the provision of education courses richness in content on detecting and working with gifted (50.9 %); a good third of teachers cannot decide on the design or set of programmes, while only a good tenth of teachers stated the opinion that the number of different programmes was perfectly sufficient (12.7 %). In-depth analysis of teachers’ suggestions for concrete thematic training programs in the field of giftedness showed that preschool teachers were frequently interested in education on didactic approaches in working with gifted and on promoting creativity.

**Discussion and Conclusion**

The majority of preschool teachers in Slovenia have no access to training or in-service that would make them aware of the curricular and programming implications of levels or degrees of giftedness in early years. Effective professional preservice, training and development opportunities of (pre)school teachers in Slovenia may lead into efficient teachers of the gifted. Although our research showed great undernourishment of mentioned positions, we need to highlight the role of the teacher of the gifted which is far beyond the role of general classroom (pre)school teacher.
In correspondence with the three sets of research we exposed the key findings, which were:

(i) the level of information of preschool teachers in the area of identifying and working with gifted children was very low;

(ii) preschool teachers’ self-assessment and the lack of their professional qualifications in the area of identifying and working with gifted children showed they mostly assessed themselves as moderately qualified;

(iii) the analysis of interests and needs of preschool teachers for further professional education and training points out, very large need for education and additional training and uncovers a great lack in the content and organisational support for this kind of programmes by national educational institutions in Slovenia (National Education Institute, Ministry of Education, etc.).

Significantly high correlation between the specific elements of knowing and understanding the work with the gifted, indicates that we can speak about general, holistic approach for working with gifted children. Even more: mutual integration of understanding personality characteristics of gifted children, the use of special didactic methods and techniques, and encouraging the creativity of gifted creates important holistic approach for working with them.

In Slovenian space no additional studies that would confirm the latter have (yet) been performed, but foreign, especially empirically supported practice points to high importance of teacher’s qualifications for holistic work with gifted (Hansen, Feldhusen, 1994; Parker, Karnes, 1991; Tomlison et.al., 1994 etc.).

In working with gifted, teachers who had been trained, had namely report much better didactic and methodological skills that had primarily been demonstrated in the academic and personal areas of gifted children (Wright, Horn, Senders, 1997). Considering the average self-assessment of teachers’ qualifications, it would be sensible to carry out longitudinal studies in the area of teachers’ professional competences and knowledge examined by teachers’ influence on the general development of gifted children. Furthermore, teachers’ recognition of a child’s advanced development may lead to creating supportive learning environment, individualisation and further formal identification of giftedness through official assessment tests in school period.

To assure high quality of education, permanent education of preschool teachers in broader fields of educational sciences and psychology is highly needed.

Besides opportunities for further education and training the following should be taken care of on the national level:

(i) possibility for establishing the role of external supervisor – an inclusive pedagogue who would be able to provide support with planning, performing and evaluating the work with gifted children/students;
(ii) rich learning materials, teaching and learning aids, and special didactic recommendations teachers in all subject areas could make use of with the specific group of children (successful learners, gifted, talented);

(iii) short forms of education and training, workshops – all educational staff should have professional qualifications in the area of identifying the basic features and characteristics of the gifted and the knowledge of basic principles for the work with the group of this kind of children;

(iv) individual longitudinal assessments and observations that can provide information about child development over time;

(v) counselling for teachers performed in their schools, taking in account specific micro-contextual framework in working with gifted.

Besides all, we must emphasise that all requirements for changes in the work of preschool teachers should coherently be balanced with rich professional opportunities in the area of further professional education and training. Early identification and education are essential for the further growth and development of young gifted children.

Trained preschool professionals, with knowledge of practical teaching strategies and creative resources, are in a unique position to advance their talents into a stimulating environment of original thinking and discovery. Continuing professional development in (pre)school gifted and talented education is the main key to transformation of good general (pre)school teachers into great gifted (pre)school teachers.

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