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**SOME ASPECTS OF SCHOOL READINESS OF CHILDREN
ENTERING COMPULSORY EDUCATION**

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Abstract

Increasing tendency to postpone compulsory school attendance, high need for mapping of children's readiness for school. The presented paper aims to introduce MaTeRS test method. An essential contribution of the paper is the updating and monitoring (and their analysis) of the physical, cognitive, emotional and social areas of children entering compulsory. MaTeRS Test maps a number of areas in which a pre-school child should reach a certain level so that they can be successful in the following compulsory school attendance. Based on this test, the child's success can be predicted. The test is focused on verbal, graphomotoric abilities, perception, level of speech development and space perception. Research questions have been answered through the categories that the method used allows, "ready for school", "prepared with minor reservations", "borderline", "unprepared". Due to the fact that preparedness for the school is a term reflecting the activity of the child's social environment, the results of the research point to the importance of strengthening especially parental competencies and kindergarten teachers. With the implementation of the research plan, it was possible to update and compare the results of the survey with previous one.

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Keywords: School maturity, pre-school age.



1. Introduction

According to Přinosilová (2007), the essence of school maturity and readiness is the presumption of such development abilities and skills that become important in further development. They are therefore usable for a new role as a schoolchild. These changes in the pre-school child are at the age of six to seven years. These changes are caused by central nervous system maturation and learning (Vágnerová, 2012). The law 561/2004 Coll., On Preschool, Elementary, Secondary, Higher, Professional and Further Education (referred to as the Education Act) states that a child has to be adequately advanced to enter primary school, both physically and mentally. Compulsory school attendance in the school year following the date on which the child reaches the sixth year of life between the beginning of the school year and the end of the calendar year, provided that the child is reasonably mature and if the child's legal representative asks for it (School Law 561 (2004), § 36) (A; Pugnerová & Dušková, 2019; Langmeier & Krejčířová, 2006).

School maturity is a term that can be defined as achieving a level of development that enables a child to participate in the educational process. These are developments in the physical, mental and emotional-social areas. There is maturation of the organism, especially the central nervous system (CNS), which is manifested by an increase in emotional stability, resistance to stress, a change in overall reactivity and above all, an improvement in regulatory ability. These abilities include the regulation of emotions, behavior and attention. In order for this development to take place, certain areas of the brain must mature. These include, for example, the proper interconnection of centers in the brain to control emotional experience and control of cognitive functions. However, the development of regulatory abilities also depends on the dispositional temperament features of each individual (Vágnerová, 2012). Entering the school is a stress for the child, so achieving a certain degree of central nervous system development is a crucial factor. CNS affects laterality, motor and sensorimotor coordination, participates in the development of visual and auditory perception. Development of CNS is essential for physical, emotional, social, but also intellectual part (Otevřelová, 2016). In assessing school maturity, we focus primarily on physical development and health (physical maturity), cognitive maturity, ability to work and maturity level (emotional and social maturity) (Bednářová & Šmardová, 2010; Jucovičová & Žáčková, 2014). Pre-school diagnosis is limited by the age of 6-7 years (in children with a more severe form of disability up to 8 years), i.e. by the start of compulsory school attendance. The aim of diagnosing at this age is to determine the quality and level of knowledge and behavior of the child, while trying to identify the causes of deviations from overall average development (Přinosilová, 2007). The assessment of school maturity usually consist of two stages. The first is the so-called screening, which is done by elementarist teachers at school, kindergarten teachers or school doctors. Stage two occurs only when there are doubts or problems when there is a case psychological counseling by psychologists (Svoboda, Krejčířová, & Vágnerová, 2001; Thorová, 2015; Čačka, 2000). School readiness can be understood as a set of competences acquired by a child and developed social experience and learning. It covers field of cognitive, emotional-social, occupational and somatic competence (Bednářová & Šmardová, 2010; Kořátková, 2008). According to Vlčková and Poláková (2013), readiness for the school is such a level of development of a child that enables him to be included in the educational process in terms of physical, mental, emotional and social. Part of the readiness is looking forward to school.

From the point of view of the social experience that the child acquires, the family is very important or irreplaceable. In this context, Chapman and Morgan (2018) point to some of the risks associated with selected socio-demographic factors related to mothers in Virginia. The authors talk about two important risk factors related to the healthy development of the child (not only in terms of school readiness) in terms of education and the age of mothers. Mothers with lower than secondary education and low age (15-17 years) appear to be more risky. Needless to say that, as far as the age of mothers is concerned, it is fortunately not the most typical behavior of socio-cultural norms in the Czech Republic. At the same time, the author presents a positive trend in terms of a sustained decline in birth rates at the age of 15-17. This decline is explained by strong national trends. Children who are immature and unprepared for school show deficiencies that may prevent adequate development of the competencies of the schoolchild's role: deficiencies in the educational environment, deficiencies in somatic development, neurotic development, early CNS damage, significantly below average of intellect (Jirásek, 1992; Kohoutek, 2008).

The success of the schoolchild's role is determined, among other things, by the quality of adaptation to the school environment. The role of a schoolchild is not a selection role. The child acquires it automatically and is limited by the achievement of age and the corresponding developmental level. In this sense it is also a confirmation of the child's normality. The school becomes a symbol for the child with which it identifies itself more or less. It becomes a part of its personal identity and expands it or, conversely, limits it on the basis of how it is capable of being a schoolchild. Another point of view is the change of social position. Because in a family, every child has an exceptional position. At school, the child is a pupil and the relationship with the teacher is completely different from that of the parents. That does not mean that the teacher does not satisfy his/her needs and does not pay attention to him/her, but he cannot do it with the same intensity as parents (Klégrová, 2003). This may cause other problems. The child's position in the family was a source of certainty for him, but he loses it at school (at least temporarily) and must become independent and take responsibility for his/her own actions and their consequences (Cakirpaloglu & Řehan, 2007, Dobešová-Cakirpaloglu, Pečtová, & Vévodová, 2016). This brings an increased degree of uncertainty that one feels in every new and unknown situation. The loss of the exclusive position helps to overcome the positive assessment and the resulting support for self-confidence (Vágnerová, 2001). A teacher becomes a "substitute" for parents for the child. Teachers' qualities and abilities are very important. First-class teachers must be above all kind and good educators and excellent didactics. The teacher is of key importance at the beginning of schooling, and any personality imbalance, mood, or impatience affects a negatively evolving relationship with school and learning. The relationship with the teacher is qualitatively different from the relationship with the parents. Yet the teacher helps the child to overcome initial uncertainty and gain new confidence. Establishing a contact between the child and a teacher can help overcome lifestyle change and to manage a new role. Child has to meet standards and requirements that are the same for everyone, but the motivation remains individually emotional. It is associated with a personal relationship with the teacher.

The relationship with the teacher changes with further development and the relationship with the teacher gradually decreases. It depends on the involvement of the child in the children's collective. The child gains the role of a classmate and a friend and thus moves more into the collective of his peers and breaks away from the teacher's authority. Child becomes more independent and more actively involved in

class life. The child expands the circle of people whose opinion is important to the child and whose opinion is taken into account.

2. Problem Statement

Currently, there is a growing tendency to postpone compulsory school attendance. It is estimated that the proportion of school postponements should not exceed 2% of the population year. These claims raise from the fact that in 2013/2014, 38% of school attendance postponements were based on parents' own decisions (Pugnerová & Dušková, 2019). These facts demand a high need for mapping children's readiness for school (Šmelová et al., 2012).

3. Research Questions

Based on the research problem, we have identified two research questions:

RQ1: Is the vast majority (i.e. 70%) of respondents ready for school?

RQ2: Are girls better prepared for school than boys?

4. Purpose of the Study

The presented paper aims to introduce MaTeRS test method (Vlčková & Poláková, 2013). An essential contribution of the paper is the updating and monitoring (and their analysis) of the physical, cognitive, emotional and social areas of children entering compulsory.

5. Research Methods

The MaTeRS method was used in the research (Vlčková & Poláková, 2013). It is a standardized test within the DIS project "Diagnostics of Children and Pupils with Special Educational Needs" (CZ.1.07 / 1.2.00 / 14.0122), which was constructed based on the empiricism of the pedagogical-psychological counseling staff. The starting point was the screening of school readiness in the child's natural environment (in kindergarten), which the child is attending. This eliminates the uncertainty and unsuccessfulness of the child in the test situation. MaTeRS can be administered in groups and individually. The authors point out that the test is tentative and generally maps: attention, maturity, work pace, degree of cooperation and overall social maturity, emotional maturity, level of speech skills, motivation for school attendance, interests and leisure activities of the child. The group part is usually administered in a group of a maximum of 10 children and maps the drawing of the figure, visual motor, graphomotor and visual distinction. The individual part maps spatial perception, differentiation of geometric shapes, auditory perception, numerical ideas, general knowledge and visual distinction. In the research was used a group administration of a total of 101 respondents, of which 50 were boys and 51 were girls aged 5.1-6.9 years. They were children without postponement of compulsory education. The obtained data were processed by transformation to weighted scores and T-test, the results were expressed by bar graphs.

6. Findings

To evaluate and interpret MaTeRS, transformation into weighted scores, percentile equivalents of gross scores of individual subtests, or weighted percentile equivalents of the whole test can be used. In the case of answering to RQ1, the transformation to weighted scores was used and the results were represented by a bar graph (Figure 01).

RQ1: Is the vast majority (i.e. 70%) of respondents ready for school?

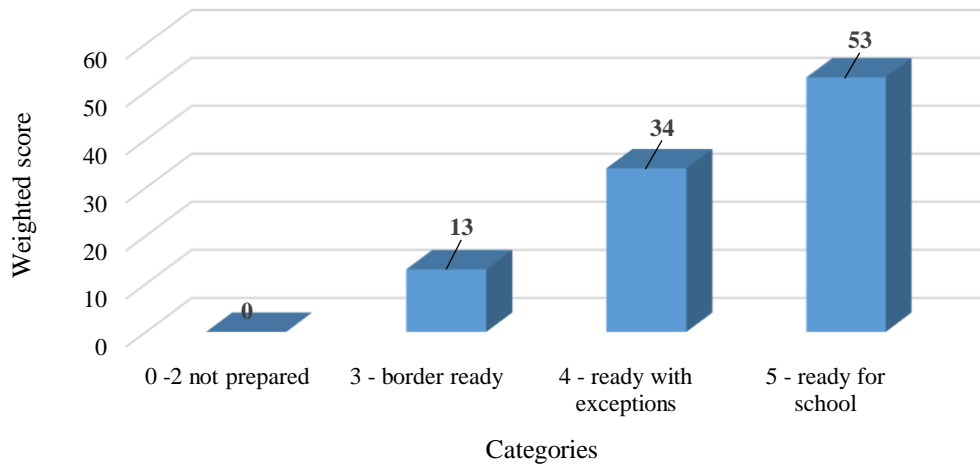


Figure 01. Number of respondents ready for school.

The above chart shows that only 53 (i.e. 52.48%) children were prepared for school, 34 (ie 33.66%) children were prepared for school with exceptions, 13 (12.87%) children were border ready for school (rounded). The total weighted score was 37.96 ± 5.71 . The answer to RQ1 is that the vast majority of respondents are not ready to start compulsory education.

T-test was used for RQ2 and a bar graph was used to show results.

RQ2: Are girls better prepared for school than boys?

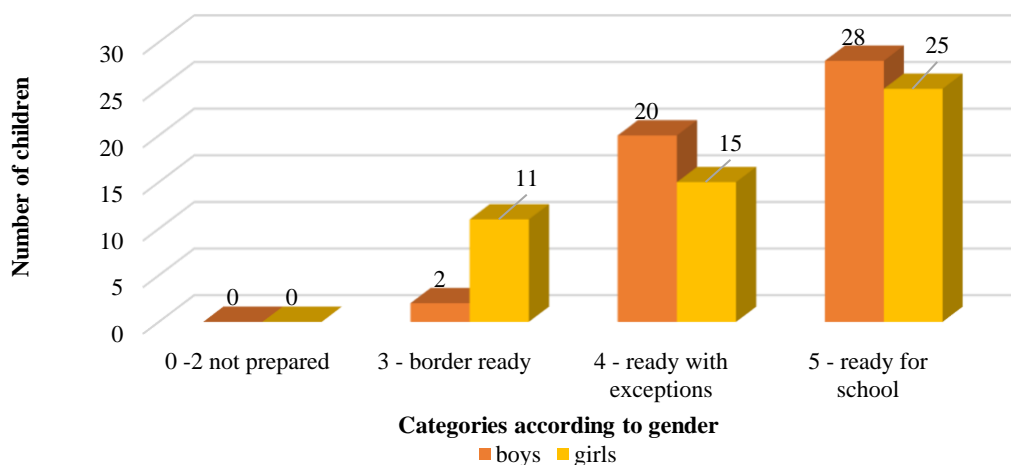


Figure 02. Graphical representation of the school readiness - comparison of groups of boys and girls

In connection with the response to RQ2, we worked with only 53 respondents who showed readiness for school (see RQ1). On the basis of the results it can be stated that girls show better readiness for school, but not significantly (boys: Mean 42.07143; girls Mean: 42.44000; significance level: $p = 0.370347$; boys: Std.Dev.1.561779, Girls: Std.Dev.1,386843) (Figure 02).

7. Conclusion

Entering the school is a major life event for most children, but also a challenge thanks to duties, which comes up with primary school education. A child entering compulsory school education should be mature in all respects in order to cope with these school requirements. For children in this period, entering the school represents an important transition from pre-school age to younger school age. This is a mentally demanding life period for the child and his/her whole family. Therefore, we asked two research questions, which should answer to the quality of children prepared for school in the Olomouc Region in the Czech Republic. Given the persistent tendency towards postponement of compulsory school education in the population of children, we have investigated whether this trend is justified. The research questions were answered through the categories provided by the MaTeRS method (Vlčková & Poláková, 2013), in terms of “ready for school”, “prepared with exceptions”, “border prepared”, “not prepared”. In the first research question we asked if the vast majority (i.e. 70%) of the surveyed respondents are ready for school. The results were transformed into weighted scores and the results were represented by a bar graph. The results showed that out of the total number of respondents only 53 (i.e. 52.48%) fall into the category “ready for school”. The answer to the research question RQ1 is that the vast majority of the surveyed respondents, representing 70 %, are not ready for school. Some available researches show that parents' education is an important determinant in school readiness. A research group consisted of 931 respondents, confirmed that children from families with higher education (secondary school, university) showed a higher level of readiness for school than children of parents with lower education (Šmelová et al., 2012). It is certainly important for a child to live in a complete, harmonious family considering school readiness issues, although Banková (2016) found that statistically significant differences were not surprisingly demonstrated in school readiness compared to children from two-parent and single-parent families. The research showed that pupils living in two-parent families had as good relationships with parents as pupils living in single-parent families. The support by physical and mental care by parents was balanced in both types of family. It can also be stated from this research that the presence or absence of one parent may not always benefit the child. This can be the case when a child lives with both parents in a disharmonic family environment that does not contribute to the child's proper development mentally, emotionally and socially. The result related to RQ1 surprised us, as there is a great deal of effort and awareness about the importance of readiness for school (i.e. information for kindergarten teachers and parents, general education programs, etc.). The Ministry of Education and Sports of the Czech Republic ensured changes in education policy in this respect by enacting compulsory non-primary education from 1.9. 2017 (Ministry of Education and Sport (MŠMT), 2017; Pugnerová & Dušková, 2019). Gender differences have traditionally considerable attention in psychology, but from some disparate points of view. Many studies are focused on cognitive processes. The differences in the intelligence of men and women are reported on average relatively small in scientific articles, but the representation of higher

levels of intelligence is reported significantly higher in men. At the same time, it is difficult to draw conclusions about the intellectual abilities of men and women. In average, their performance in the intelligence tests is only a few points in favor of men, depending on the measured domain. Significant gender differences in mathematical and spatial skills are usually reported in favor of men. These differences appear from the start of adolescence, probably with the development of logical and abstract thinking. Relatively influential is the hypothesis that men show a higher variance in intelligence test results, the level of which is again related to the type of test (Feingold, 1992; Lynn & Irwing, 2004; Benbow & Arjmand, 1990; Lubinski & Benbow, 2006). In the second research question RQ2, attention was aimed on readiness for school in terms of gender differences. The evaluation was done by the T-test and we were interested in whether girls are significantly better prepared for school than boys. The results showed that girls are better prepared for school, but not significantly. It is a question that is already "classic" in this respect, as a positive answer is a leitmotif in research into gender differences in this area (Matějček, 1986; Langmeier & Krejčířová, 2006). The same authors even say that girls are about a quarter of a year ahead in maturity and readiness for school in front of boys. One of possible explanation is offered by Janošová (2008), who stated on the basis of the research that the current school environment and the readiness criteria for compulsory school education are in more characteristics closer to girls than to boys (they care more about the outcome, they can focus more in task situation, have better drawing skills, etc.). The research of Šmelová et al. (2012) also did not show significant differences between the group of boys and girls in terms of readiness for school.

Due to the fact that readiness for school is a term describing the activity of the child's social environment (Langmeier & Krejčířová, 2006), the results of the current research show the importance of strengthening parental competences and kindergarten teachers in particular. Through the implementation of the research plan it was possible to update and compare the results of the survey with some findings realized within the project GAČR (Šmelová et al., 2012).

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