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Current Trends in the Emotional and Social Aspects of School Readiness Research

Abstract: School readiness issues have been a focus of educators for years. The number of approaches, tendencies and dimensions of school readiness indicates how comprehensive and complex this topic is. The analysis of contemporary research directions based on the papers available in academic databases allows them to be arranged into a few categories. They are all presented in the article with the aim of obtaining the current perspective of the problem, especially in the social and emotional context. Some authors try to determine the list of detailed aspects of emotional and social skills important to begin school education. The other approach presents the new school readiness tools. There is also a line that evaluates the early emotional support effect on school readiness. The next trend is formed by statistical meta-analyses of the correlation between the age of the school start and pupil achievements. The two new directions are related to the school readiness profiles and the idea of including executive functions into school readiness assessment as an important aspect of pupils' emotional and social achievements. The results coming from those six directions help educators to increase early education care.

Keywords: school readiness, social and emotional competence, profile, trend.

Introduction

The aim of the study is to review the contemporary issues in school readiness research, especially with regard to the social and emotional competence of children who are about to start their school education.

The analysis of the research allows to present it in six topics which are as follows:

1) determining the specific aspects of emotional and social functioning, and their predictive power for further school achievements (Fantuzzo et al., 2005; State, 2013; Davies, Janus, Duku, Gaskin, 2016);

2) introducing the new instruments of cognitive and non-cognitive school readiness assessment (Davies, Janus, Duku, Gaskin, 2016);

3) the evaluation of the process of providing emotional and social support for the kindergarten children before they start their school education (Brzezinska, Matejczuk, Nowotnik, 2012);

4) statistical studies on the influence of pupils' date of birth for their academic achievement (Konarzewski, 2013; Jablonski, Kleka, 2015);

5) identification of the profile of preschoolers at risk of problematic behaviour in order to provide them an early intervention (Abenavoli, Greenberg, Bierman, 2017);

6) measuring the level of executive functions in preschoolers as an attempt to clarify the links between school achievement and socio-emotional adjustment (Fitzpatrick et al., 2014; Baptista et al., 2016).

Those six trends which appeared in the international research will be presented in the paper in a more detailed way.

School readiness competences in social and emotional functioning

In much of the research directed to assessing school readiness in preschoolers there are skills and competences related to their emotional and social development as one of the important dimensions of the problem. There is no agreement among the researchers towards the complete

list of social and emotional competences which should be considered as crucial at the starting point of school education. Despite this, there have been numerous attempts to create such lists of these factors separately for emotional and social skills.

Among the emotional aspects of the school readiness, tests usually are subjected to: a) inhibition, which is one of the dimensions of the executive functions (Hatfield et al., 2016), b) ability to control one's own emotions (Brzezinska, Matejczuk, Nowotnik, 2012); c) emotional expression and the ability to adjust to others (Stan, 2013); d) self-motivation (Fantuzzo et al 2005); e) emotional maturity (defined as the absence of fear, aggression, hyperactive and inattentive behaviours) (Davies at al., 2016).

Other aspects of emotional functioning assessed in the school readiness scales include emotional regulation (Fantuzzo et al., 2005), understanding emotions (Stan, 2013), trust and confidence in others related to the attachment styles (Brzezinska, Matejczuk, Nowotnik, 2012).

There is a group of researchers who pay more attention to the negative aspects of the behavioural and emotional symptoms indicating the preschooler's immaturity to begin school education. They assess the presence of the early conduct problems that can interfere with the academic achievement. Due to the fact that they can develop into the stable patterns very quickly, the authors suggest identifying them as soon as possible (Vitiello, Williford, 2016). The list of these early indicators of emotional problems include externalizing and internalizing behaviours, showing aggressiveness towards other children, or as opposed to it, being shy and resistant, subjective in expressing needs, lacking self-confidence.

The aspects of school readiness in the social dimension include in the research: a) a child's respect for the rules, b) their pro-social behaviour (Stan, 2013); c) engagement in play with the peers and with the whole group (Vitiello, Williford, 2016); d) the ability to interact with peers (Davies at al., 2016). Compliance to the rules, playing strategies and interactive behaviours are usually the ones that are present in most of the studies.

There is also research that has highlighted child-teacher interaction as a very important factor in preschoolers' social development towards school readiness (Hatfield et al., 2016).

Cognitive and non-cognitive school readiness tools

One of the most elaborated school readiness assessment tools that has been standardised psychometrically in Canada is the Early Development Instrument (EDI) by M. Janus and D. Offord (2007). It contains 104 items for the teacher to complete and is a population-based measure to assess the school readiness of kindergartners. Five areas of their development are taken into account: 1) physical health and well-being; 2) social competence; 3) emotional maturity; 4) language and cognitive development; 5) communication skills and general knowledge.

The physical health section includes: a) general physical readiness to start school; b) physical independence; c) established handedness; d) coordination; e) gross motor skills (motion); f) fine motor skills (manipulation).

Social competence includes: a) the ability to cooperate with the peers; b) responsibility for one's own behaviour; c) respect for people – adults, children; d) cognitive curiosity and readiness to explore; e) attitude to learning.

Emotional maturity is a negative section, so the positive results are achieved when there are less unwanted, immature behaviours such as being fearful or aggressive, inattention, hyperactivity.

The three sections above form the non-cognitive part of the school readiness achievement. The next two are the cognitive ones.

Cognitive and language development scale consists of the items related to: a) basic literacy (writing one's own name, knowing a few letters), b) advanced literacy (ability to read and write a few words, etc.), c) basic numeracy (recognizing numbers, ability to count objects and fingers, etc.).

The general knowledge and communication skills EDI section includes: a) story-telling, ability to express one's own needs verbally, socially appropriate way of communication; b) understanding verbal instructions and commands; c) general information and knowledge about the world.

The other school readiness assessment tool with psychometric standardisation has been designed and developed in Poland by A. Frydrychowicz, E. Kozniewska, A. Matuszewski and E. Zwierzynska (2006) as

a part of the bigger set of instruments called The Preschool Teacher's Advisor. The set consists of the School Readiness Scale (SRS) Manual with its psychometric properties and six brochures containing important information related to the main topic, such as: 1) school readiness contexts, 2) play and learning in the group, 3) achieving independence, 4) preschoolers' social skills, 5) reading skills and literacy development and assessment, 6) numeracy development and assessment in 6-year-old children.

The School Readiness Scale is a teacher-completed tool that includes six areas of assessment: a) educational skills; b) cognitive skills; c) motor efficiency; d) self-independence; e) non-conflictuality; f) social activity. There is a 4-point Likert scale based response required for each of 64 items.

Early social and emotional support for the preschoolers

The results of the research indicate that in supporting the development of children from poorer backgrounds and with different resources and experiences towards the emergence of their potential and to help them in achieving school readiness, the crucial matter is related to the authority of the preschool teachers. They are supposed to be sensitive to the developmental changes, focus on the resources of the child, not on their deficits, monitor changes on the basis of the functional dynamic assessment (Brzezinska, Matejczuk, Nowotnik, 2012). The test results also show that the highest efficiency is observed with additional time spent in kindergarten, dedicated directly to the development of social and emotional competence, and not necessarily educational skills (Konarzewski, 2013).

This approach to school readiness also underlines the double readiness issue, including the child's ability to begin their school education and the school's ability to be able to receive children with their individual specific needs. Due to the different experience in every child's life situation, combining with their capacities and their own activities, there is a need to give them the opportunity to start school at the similar

point in their development. The team of A. Brzezinska, J. Matejczuk and A. Nowotnik (2012) has analysed the relation between the types of the social, emotional and cognitive support at an early age (5–7 year old children) and the pupils' readiness to cope with the challenges at the beginning of school education. The authors developed a model of the main areas of this support, based on Erik Erikson's theory of psychosocial development (Bee, Boyd, 2009).

According to it, the foundation of every action and vision of the world is the process of building a child's personal resources in the early childhood. This is supposed to give them trust and confidence, initiative and autonomy.

The second level includes providing the tools for understanding social context and the means to cope with difficulties and failures. This refers to the process of building an identity based on cognitive, emotional, moral and social development.

The third level of the support concerns the process of developing competences related to learning such as planning, organizing, monitoring, metacognition.

The last, fourth level of intervention should include the development of specific skills that are necessary for educational tasks and problem solving (for details see Brzezinska, Matejczuk, Nowotnik, 2012).

The authors present a list of eleven competences crucial for school readiness and academic achievements, and these are the ones that could be strongly supported by different programmes of early intervention. The competences include as follows: 1) inhibition, delayed gratification, 2) emotional control leading to self-control, 3) focusing attention despite distractors, 4) readiness and willingness to achieve aims and goals for the price of effort, 5) working memory, 6) ability to establish goals and to make plans, 7) initiating and continuing one's own actions, 8) organizing actions in the spatial arrangement, 9) planning actions in time, 10) flexibility, 11) self-regulation and metacognitive skills.

The role of adults, teachers and parents, in this model, is to formulate tasks and problems so that every child is interested in solving them and engaged in the process of it. This includes the skilful and balanced com-

bination of pleasant and less preferable tasks so that the child is able to connect the rule of pleasure with the rule of reality (Brzezinska, Matejczuk, Nowotnik, 2012).

Another important thing is to provide gratification after the end of each task or action and gradually develop a positive experience from mental effort, not only from play. The support programmes leading to school readiness should be provided as a kind of scaffolding that helps every child to be able to lay the foundations for crucial skills with the aim to gradually get rid of it during the process of development and maturation (Wygotski, 1989).

The date of birth effect on academic achievements

Data analysis of a huge sample of the third grade students (n = 101 519) from 25 European countries, participating in the measurement of the achievements TIMMS 2011, was carried out by K. Konarzewski (2013) with the use of hierarchical regression analysis. This was to assess the impact of the effect of the date of birth on school achievement. In some countries the date of birth effect was not listed. Some observed the opposite effect, with younger children performing better than older, but only when they were compared with the achievements of those whose school education had been delayed. In this context, the researcher proposes focusing on the question of the manner and methods of reducing the differences between the children remaining under the care of one teacher in one branch rather than on the starting age for school education (Konarzewski, 2013).

In other studies (Jablonski, Kleka, 2015), the authors drew attention to the specific factor found in the group of children who were sent to school earlier than they were supposed to. They showed a higher level of fluid intelligence, and their parents had a higher social status. According to the authors, it was this combination that let them achieve higher results rather than the school starting age itself.

The school readiness profiles of emotional and social competences

A profile analysis of the preschoolers' school readiness in the emotional and social dimension revealed four types of children: a) well adapted, b) cognitively competent but aggressive; c) non-aligned cognitively and emotionally immature; d) with multiple risk of disorders in which there are problematic behaviours, hyperactivity and aggressive behaviour (Abenavolli, Greenberg, Bierman, 2017). The authors suggest that early assessment of school readiness towards establishing its profile is crucial for further school success.

Having studied the results of a number of pieces of research, a group of researchers from the Pennsylvania State University, R. Abenavoli, M. Greenberg and K. Bierman (2017) noticed the deficiency and need for the high-risk sample in the contemporary studies on the school readiness.

The team ran a research project on those from a n=301 low-income family background, disadvantaged preschoolers. They measured children's academic ability, learning engagement, social-emotional skills and aggressive-disruptive behaviours which they use in their latent profile analyses (LPA). Teachers completed the Teacher Social Competence Scale. They rated six items related to emotional functioning on a 6-point Likert type scale and seven related to the social skills. The items include the ability to cope with disappointment, calm down after frustration, co-operate, share with others, etc. Aggressive-disruptive behaviours were rated on the similar Likert type scale. They include the estimation of the level of the three negative kinds of actions, such as: a) violent behaviours – fighting with other children, pushing, hitting others, b) conduct problems – cheating, stealing, c) hyperactivity – struggling to wait for turn, interrupting others.

The analysis model let the team establish school readiness latent profiles. The first profile, explained by 42% of the sample, has been consisted of well-adjusted preschoolers who were rated by their teachers as cognitively and non-cognitively ready to begin their school education. Their levels of literacy, mathematical ability, school engagement, learning behaviours, attention, emotional regulation and pro-social behaviours

were high enough to start school and the levels of aggressive behaviours, conduct problems and hyperactivity was low (Abenavoli, Greenberg, Bierman, 2017).

The second profile, formed by 19% of the sample, consisted of children who were rated as cognitively compliant and competent to start school but emotionally not quite ready to do so. They were characterized by high levels of literacy and mathematical ability, a lower level of school engagement, learning behaviours, attention, and emotional regulation and pro-social behaviours below the mean. They presented some aggressive behaviours, as well as minor conduct problems. Their average level of hyperactivity was higher than in the first profile.

The third group, consisting of 22% of the subjects, was formed by children described as academically not well engaged in educational tasks, including basic literacy, numeracy, but they had ability to memorize and focus their attention long enough to be able to solve the problem or answer the teacher's question. Their levels of cognitive skills were below the mean and the levels of the aggressive-disruptive behaviours were slightly above the mean for the sample.

The last group, including 17% of the children, represented the multi-risk profile that meant presenting the most negative behaviours in the teachers' ratings. Their profile was striking in its high levels of aggressive behaviours, conduct problems and hyperactivity. Those three negative dimensions were much higher in this group compared with others.

Preschoolers' executive functions in the school readiness assessment

Current research takes into account the measurement of the preschoolers' executive functions in the process of the assessment of school readiness. This is based on the results showing the strong correlation between child's self-restriction from the immediate gratification as an important predictor of success in life and the academic achievements (Goleman, 1997; Fitzpatrick et al., 2014; Baptista et al, 2016).

The origin and source of these interests comes from the experiment run by W. Mischel and E. Ebbesen in the 1960's at Stanford University, known as the "marshmallow test" (Mischel, 1961; Mischel, Shoda, Rodrigues, 1989). The aim of the study was to assess delayed gratification and its development in the kindergartners. The participants were over 600 children from the nursery schools at the mean age of 54 months, or 4 years and 6 months on the average. Every participant was invited to a room with a marshmallow on the table. There was a possibility, mentioned in the instruction, either to eat the treat straightaway or to wait fifteen minutes without eating with the promise of receiving the second one as a reward for the patience.

Most children attempted the delay but only in 33% of them was it long enough to receive the reward. A minority of the subjects decided to eat the sweet immediately. Delayed gratification time length was strongly related to the age of the kindergartners, the older they were, the longer they were able to wait.

Later, in the 1980's, W. Mischel ran follow-up studies with the same group of children but who were now much older. He found correlations between the results of the delayed gratification experiment and participants' academic achievements. There had been also some modified experiments run on preschoolers with the use of go/not go tasks later, showing correlations between the age and inhibitory control ability (Mischel, Shoda, Rodriges, 1989).

The relatively recent neuroimaging research, on the original participants from the first edition of the experiment at Stanford, indicated the prefrontal cortex activation differences between high and low delayers of gratification (Eigste et al., 2006; Casey et al., 2011).

One of the directions of the current studies on the school readiness competences focuses on the preschoolers' executive function level as a variable that can explain the gap between advantaged and disadvantaged children (Fitzpatrick et al., 2014). The authors suggest implementing specific programmes in preschools that could effectively enrich executive function skills such as inhibition, emotion control, delayed gratification, working memory, ability to shift. The Montessori curriculum is

highly recommended for such programmes. Another trend in the study on school readiness, including executive functions, is to explain the relation between them and students' academic readiness and their further achievements (Baptista et al., 2016). Executive functions allow for the conscious and goal-set control of thoughts and behaviours in our life, starting from an early age. The results of the recent research led by the team of J. Baptista and her colleagues (2016) have shown that the preschoolers' social adjustment was linked to their academic readiness as a mediator between the early educational skills and executive functions. This leads to the conclusion that there is the need to strengthen children's capacities to manage their acting in a socially appropriate way so that they would be more mature and ready to succeed at school.

Conclusions

School readiness is one of the most crucial developmentally based achievements of 6-year-old children. It is vital for teachers and educators to be able to assess its aspects and correlates in many dimensions so that the picture of the child would be comprehensive and holistic. There are three ways to do so: a) teacher report, b) parent rating, c) direct child assessment. The best results can be obtained only by using the combination of those three but from the economic point of view, in practice, rating scales are in use more often than direct assessments. The teachers ordinarily will not use direct assessment unless the child needs a specific decision to be undertaken related to a) the consideration to start school earlier than the peers, b) demonstration of unsocial troublesome behaviours, c) the requirement to implement an early support programme to their education.

After many types of analyses and observations, the statement both for the educators and the researchers is clear and consistent. Regardless of the method of data gathering, school readiness concerns not only educational skills, although they are vital, but also the emotional and social skills allowing the pupils to gain success in academic and non-academic areas of their lives (Goleman, 1997).

The social and emotional competence profiles of the preschoolers' school readiness, as well as the lists of skills related to direct and indirect assessment, indicate the compound character of the child's social-emotional functioning and the role these dimensions play in the process of school achievements alongside cognitive skills.

In many current studies on school readiness one can see the deep care and concern of the adults engaged and responsible for the child's early development. The main aim is to provide satisfying and equal opportunities for all children, regardless of their social background and individual experience.

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