# PLAY AS AN INDICATOR OF PRESCHOOL CHILDREN'S SOCIAL SKILLS IN THE CONTEXT OF EDUCATIONAL DIAGNOSTICS

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#### Abstract

The task of kindergarten teachers is to support the development of preschool children with respect to their potential. In order to do this, they need to know every single child including their development potential, limitations, interests, needs, etc. The information about children in kindergarten is acquired by means of educational diagnostics throughout the whole day.

The authors intend to present a TACR project, which involves the development of an online instrument for the purposes of educational diagnostics in kindergarten. In this way, the team of investigators respond to the current needs of educational practice, where educational diagnostics appears to be a weak part of the educational process. This may have a negative effect on the effectiveness of the education process. An integral part of the development of the online tool is practical verification in through a series of partial steps. In the paper the authors present one of the areas that will be monitored in the online application—evaluation of interpersonal relationships in the context of children's play. The concept itself is based on educational theory and educational practice and reflects the current trends in education and the requirements of educational practice.

**Keywords:** Child, play, social skills, educational diagnostics, school readiness, online application.

#### 1 INTRODUCTION

At present, one of the topical issues is the quality of preschool education in the context of children's readiness for compulsory education. This quality is related to the effort to decrease the number of children with postponement of compulsory education and also to the introduction of compulsory preschool education in 2017 and the variant form of home preschool education one year prior to enrolment in compulsory school education. As suggested by the authors' previous research studies [1] and the results presented by the Czech School Inspectorate (referred to as CSI), educational diagnostics is one of the weaknesses of preschool education. Available research studies show that kindergartens have systems in place to assess the children's progress, but they are not always able to use them in children's development. The determination of an educational diagnosis in order to achieve the key competences and expected outcomes, and the educational process itself do not often match the current knowledge about the child. Therefore, this fact is in contradiction with the current trends and requirements in education—emphasis on individualization. The intended online application is designed as a professional support of the teacher for the purposes of educational diagnostics. The application does not in any way lead to schematization, as is often the case with record sheets of higher or lower quality. On the basis of the partial steps, the team of

investigators are developing a scheme for the evaluation of the child's development and progress in compliance with the outcomes defined by the preschool curriculum. The paper presents the process of verification of the evaluation of interpersonal relationships in the context of children's play.

#### 2 PRESCHOOL AGE—THE AGE OF PLAY

In the life of the child, the preschool period is sometimes identified as the age of play, which is the dominant activity of this significant period. Play offers inexhaustible opportunities and is a source of new stimuli, interactions and social contacts. During play, children are spontaneous, use their knowledge, skills, emotions, etc. Play is an important activity for preschool children as it affects their development but also for the teacher as a source of information about the children.

Should play have the qualities defined above, appropriate conditions must be provided, but this does not apply just to material conditions. High-quality play is an indicator of the quality of the teachers' work, their creativity, knowledge of the children, empathy, ability to listen, ability to use play in a natural and peaceful way to assess the children's development using educational diagnostics and taking into consideration their individual peculiarities [2].

The current preschool education is based on the personality-oriented model. This concept involves individualization in education, which is understood as a way of differentiation in the education of children in the context of a social unit—in this case the class—where internal, content-based and methodological differentiation takes place with respect to the peculiarities and needs of each individual. In this context, Opravilová says, "The individual approach is nothing extra, it is neither a privilege nor a punitive measure. It is simply attention and consideration of the uniqueness of each child, the art of approaching the child in a way that best suits the child, and the ability to choose tailored educational strategies" [3].

#### 3 PROFESSIONAL COMPETENCES OF KINDERGARTEN TEACHERS

The current concept of the system of education requires a well-defined continuity of the educational levels. Kindergarten is the entry level and the first educational system that children are exposed to. In an analysis of research studies, Provázková Stolinská emphasises the broad competences of kindergarten teachers [4]. Kindergarten teachers should have the necessary competences including the following: *educational and didactic, course-specific, diagnostic and informational, social, psychosocial and communicative, managerial and normative, professional and personality-cultivating* [1]. The level of these competences is reflected in the quality of the educational process. The authors of the present paper believe that the diagnostic competences are related to the entire educational process. The teacher designs and performs interim as well as final evaluation, which is then reflected in the teacher's further education work. The teacher monitors all activities in terms of their compliance with the relevant criteria, for example view of the child whose individualization is supported, view of the group of children whose friendships and sense of belonging are supported, etc. The continuous monitoring and evaluation of educational reality becomes the basis for further support and development of the child, elimination of problems and adequate interventions [1].

The results of CSI are consistent with our findings and suggest that the situation in the area of educational diagnostics in Czech kindergartens is not very good.

CSI suggests the following:

"Systematic monitoring of individual educational progress has been a long-term weakness in education, because in most of the cases (56%) educational diagnostics did not reach the required level and therefore

#### did not support individualized education.

"At the same time it was observed that a large part of the education was well organized (66.5%) but a considerable part of the teachers failed to take into consideration the children's individual capabilities, skills and interests (47.4%). This situation is related to inadequate use of educational diagnostics in determining the educational objective.

"An alarming finding is that almost half of the schools failed to develop a comprehensive system that would monitor the children on a regular basis and define specific evidence-based conclusions for the children's individual development in the future. CSI's statistics show that educational diagnostics and the preparation of an individualized educational offer have in the long term been the most problematic areas in preschool education."

(Annual report of the Czech School Inspectorate for 2018/2019)

The results suggest problems especially in classroom work. Kindergartens produce their own school educational programmes, according to which the teachers plan their educational activity, prepare the educational offer, but do not always reflect the specific needs of the children. This may be caused by a number of factors including problems in the area of continuous educational diagnostics, which is used by the teacher to evaluate the child in terms of progress and overall development in the context of compulsory preschool education and school readiness.

#### 4 PLAY AND ITS ROLES IN THE ASSESSMENT OF CHILD DEVELOPMENT

Play is generally defined as follows: "A form of activity that differs from work or learning. People like to play throughout life, but in preschool age play has a special position—it is the dominant type of activity. Play has a number of aspects: learning, exercising, emotional, motional, motivational, creative, imaginative, social, recreational, diagnostic, therapeutic" [5].

The present paper is based on the concept of developmental psychology: "Play is an activity (physical or mental), which is performed just because it is pleasing and brings satisfaction on its own, without an external objective, irrespective of whether the activity itself is pleasant or strongly unpleasant" [6].

Play is a source of many opportunities to support peaceful development of the child in completely natural conditions. At the same time, it reflects the level of the child including the following aspects: physical (level of gross, fine and graphomotor skills), mental (speech, thinking, creativity, etc.) and social (relationships with others, observance of rules, ability to reach agreement, respect for others, etc.)

Play has been addressed by many professionals and a number of theories have been formulated. Some of these authors are for example Comenius, Spencer, Hall, Groos, Piaget.

- **J. A. Comenius** referred to the importance of children's play, which should be supported by the adult and in no way should be restricted or prevented because play supports "physical activity and mental freshness" [7].
- **J. Piaget** considered play in the context of children's cognitive development. According to the author, the development of thinking helps create more complex play, which facilitates the development of complex ways of thinking. Play helps children develop more complex forms of thinking, especially when they try to understand the principle of things that they interact with. During play, children use speech which is linked with thinking [8].

Piaget distinguished the basic periods of intellectual development, which he linked with the level and type of children's play:

Sensorimotor stage (6 months to 1.5–2 years, sensorimotor and motor play;

- Preoperational stage (2–7 years), (symbolic play);
- Concrete operational stage (7–11 years), abstraction, development of superordinate concepts;
- Formal operational stage (12–) [8].

In the preschool period, Piaget defined symbolic play, which is generally considered the top of children's play. Through symbolic play, children transfer an activity of an object to a substitute object. These objects then represent specific symbols, and this is the principle of assimilation, which is the basic function of symbolic play [8].

Through symbolic play children reinforce their experiences, repeat what has been experienced and come to terms with reality, which may often be incomprehensible and stressful. Play is also significant in the process of satisfying the child's emotional and intellectual needs. Symbolic play is a reflection of play pretence and role adoption [9, 10].

**L. S. Vygotsky** also emphasised the rapid development of play in the preschool period. According to the author, this is related to the emergence of new needs and motives, which are based on the currently unattainable tendencies and desires of a permanent nature. At this point, play comes in as a means of their imaginary realization. Naturally, the effect of play is not just quantitative but mainly qualitative. As Vygotsky suggests, it is "the leading activity which creates the zone of proximal development, during which children preform activities at a higher level, and where the crucial functions for the future are formed." Especially role-play is an important source in the development of preschool children's symbolic representation, self-regulation, activity planning, communication and imagination. By supporting play by the adult, the world of children is slowly getting closer to the world of adults, without depriving children of their childhood [11].

### 5 IMAGINATIVE PLAY IS AS AN INDICATOR OF CHILDREN'S SCHOOL

#### READINESS IN THE AREA OF SOCIAL SKILLS

Qualitative research design

**Research question:** Can imaginative play be used to evaluate interpersonal relationships in the context of school readiness?

**Aim of the research:** By means of video recordings analyse and evaluate the use of imaginative play for the purposes of educational diagnostics as an indicator of school readiness in the area *The child and the other person* [12].

For the purposes of a qualitative (micro)analysis of children's imaginative play, the authors used **the video recording method**.

**Subject of evaluation:** Imaginative play of children in compulsory preschool education involving 5 girls and 5 boys (5–7 years of age).

**Observed events:** Behaviours in the context of the expected outcomes defined by FEP PE [12].

The videos were taken in three kindergartens in both heterogeneous and homogeneous classes. The total footage was 270 minutes.

The information from the videos was written in record sheets on the basis of a predefined category system, the purpose of which was to identify the events (event sampling).

In the present research, the authors focused on those events that were relatively easily accessible with a low degree of deduction.

At first, the recordings were checked for the types of play.

Play

Type of activity—group of 5 to 7-year-old children

Flay	Type of activity—group of 5 to 7-year-old children	
Imaginative,	Stories from life, TV stories, etc.:	
theme play	Dominated by playing household, using especially the playing corner,	
	combined with constructive play (building houses, rooms, etc.)	
	Playing traffic (combined with constructive play)	
	Playing soldiers combined with constructive and fictional play	
	The play was mostly of a social nature.	
	The play was controlled by intrinsic motivation, the children made their	
	own choice. Only a small proportion of play was induced by the teacher.	
	The teachers' intervention in the course of play was very low, only in the	
	case of stagnation to help develop the content.	
Constructive	Making of a specific product:	
play	Dice, LEGO building blocks (towns, vehicles, etc.)	
	The following activities were also observed:	
	Drawing (individual and collective work)	
	Painting (individual and collective work)	
	Gluing, cutting (individual)	
	Puzzle, dominoes.	
Fictional play	This category included play with musical instruments accompanied by	
	movement interpretation (piano, flute, rhythmic instruments)	
	This type of play is overlapped with imaginative and theme play.	
	Sporadic occurrence. The types of play were of a social nature.	
Physical	The following types of play were observed:	
activity play	Physical activity improvisation	
	Tag	
	Climbing frame	
	Also these types of play were of a social nature. The teachers tended to	
	regulate these types of play for safety and noise reasons.	
Computer-	In the present study this type of play was not observed.	
based play		
based play		

The most frequent types of play included imaginative and constructive play. Imaginative play was usually conducted in groups of 3–4 children. In children aged 5–7 years, the researchers observed different levels of play in terms of its elaboration. In groups of children aged 5–7 years the play was developed and the children showed their emotions, often accompanied by minor conflicts related to rejection of roles, submission, agreement, etc. In heterogeneous groups, especially girls were observed to care for younger children, which often resulted in manipulation.

#### **Evaluation of interpersonal relationships**

The basis for the evaluation of interpersonal relationships is FEP PE [12], section The child and the other person.

The aim of the teacher's educational efforts in the area of interpersonal relationships is to stimulate the child in creating relationships with another child or adult, strengthen, enrich and cultivate their communication and ensure that these relationships are well kept [12].

The intention mentioned above is specified in detail by means of partial educational objectives, by following which the teacher works to achieve the expected outcomes, which essentially show whether the child is prepared for starting compulsory education in this area.

Observed events—expected outcomes (what is usually achieved by a child at the end of preschool period) [12]

- 1) Establish contacts with adults entrusted to take care, overcome shyness, communicate appropriately with the adult, respect him/her,
- 2) Understand common ways of expressing emotions and moods,
- 3) Naturally and freely communicate with other children, establish and maintain friendships with children,
- 4) Refuse a communication s/he is uncomfortable with,
- 5) Be aware of their rights in relation to each other, be able to grant the same rights to others and respect them,
- 6) Understand that all people (children) have the same value despite being different (looks and behaves differently, knows or does not know different things, etc.) and that personal or personality differences are natural,
- 7) Exercise their individual needs, wishes and rights with respect to the other (to defend their positions or opinions, to respect a different view or opinion), to accept and enter into compromises, to solve a conflict by agreement, cooperate with others,
- 8) Respect established and understood rules of mutual co-existence at home, in kindergarten, in the public, comply with game rules,
- 9) Respect the needs of another child, share toys, utilities, snacks, divide a task with another child, etc.
- 10)Understand what the other wants or needs, meet the other halfway (behave sensibly and considerately towards a weaker or hurt child, have regard to the others and sympathize with them, offer help, etc.),
- 11)Defend another child against acts of violence, maltreatment, humiliation, etc.
- 12)Behave cautiously when confronted with unknown children, older or adult people, if necessary ask for help (for themselves or for another child).

The information written in the record sheets related to the children's behaviours were then matched with the outcomes in order to find out the extent to which play can be used in the online application for the purposes of evaluating children's progress.

**Table 2**: Record of events during imaginative play

Occurrence	Imaginative play—
	record of observed events
(1) Very	1, 3, 4, 7, 8, 9, 10
often	
(2)	5, 11, 12
Sometimes	
(3) Never	2, 6, 13

The record suggests that most of the expected outcomes appeared with varying quality and quantity levels.

Due to the large number of records, the paper provides an overview in terms of the occurrence of the observed events.

Table 3 shows a part of the records relating to interpersonal relationships.

**Table 3:** Example of records

Occurrence	Evaluation of the outcomes in the context of the observed play
(1) Very often	The children were able to communicate, some problems related to the ability to
	respect the other person in communication, the children respected the teacher
	although they showed different reactions to the teacher's instructions, especially in
	the case of reprimand the children's behaviours differed (termination of play, focus
	on a different play, shame, but also acceptance of the teacher's instructions)
	Older children, especially in relation to younger children, were attentive, particularly
	when the younger children entered the classroom, they helped them join the play,
	especially girls showed a caring and perhaps overly protective approach that could
	pose a risk
	Older children were able to cooperate with others, agree on a play, respect the agreed
	rules, accept roles, etc., even for a longer period of time
	Occasional problems occurred mainly in the case of sharing a toy, but also sharing
	roles, where the teacher had to intervene and regulate the play
	During the play, the children tried to push through their wishes and opinions, which
	resulted in occasional conflicts; it was sometimes problematic for the children to
	accept compromises suggested by the teacher
	The children were able to communicate freely with other children.
(2) Sometimes	If the children did not like the opinion or plan of their classmates, they terminated the
	communication, ignored the classmates or started playing with a different toy
(3) Never	Understand that all people (children) have the same value despite being different
	(looks and behaves differently, knows or does not know different things, etc.) and that
	personal or personality differences are natural
	Behave cautiously when confronted with unknown children, older or adult people, if
	necessary ask for help (for themselves or for another child)
	Be aware of their rights in relation to each other, be able to grant the same rights to
	others and respect them

The example of the record of the events clearly shows that play provides the teacher with the required information about the child in the area of interpersonal relationships. Section (3) shows the outcomes that were not evaluated due to the lack of adequate behaviours.

The authors of the paper believe that even these skills can be evaluated through play, for example if the teacher introduces new themes and content in the play, for example through model situations.

## **Discussion**

School readiness includes the child's characteristics that are related to the external social factors and to the learning process. School readiness is evaluated in the cognitive area, which focuses on the development of perception, imagination, attention, memory, thinking. The other domains are somatic and work-related, where focus is for example on the child's ability to take responsibility for a task and work on the task for some time.

The last important component is the emotional-social area. This domain is related to the subject of the present research with an emphasis on interpersonal skills.

"Kellmer Pringle emphasises the importance of human relationships for the child with a particular emphasis on feelings (love, safety, appreciation, acknowledgement). Similarly, Vygotsky, Bruner and Piaget attribute great importance to interpersonal relationships. According to Vygotsky, higher functions develop especially as a result of social interaction [13].

In the research, the authors have confirmed the significance of imaginative play in the evaluation of school readiness in the context of interpersonal relationships. Virtually all of the expected outcomes can be not only developed and evaluated through play but can also be used to monitor the children's progress and make changes in their behaviour. It appears that for the purposes of educational diagnostics in the context of the upcoming online application it is necessary to describe in more detail some of the expected outcomes (especially 2, 6, 13) in terms of the children's desirable behaviour, and at the same time propose other activities for evaluation.

#### 6 CONCLUSIONS

The analysis of the video recordings has shown that play can be used for the evaluation of the expected outcomes in the area The child and the other person (interpersonal) in the context of school readiness. For the purposes of the authors' project, which is the development of an online application, the present research has identified a series of observed events and their most frequent manifestations, i.e. the basic evaluation indicators. At the same time, there is a need for clustering of the expected outcomes. The results will now be implemented in the online application—educational diagnostics instrument—and tested by the teachers. According to the teachers' comments, adjustments will be made.

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