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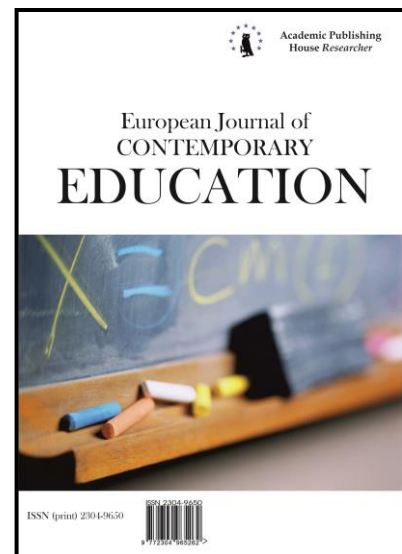
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## Research into the Play Competences of Children of Senior Pre-School Age

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### Abstract

Relevance of the research: This is determined by an obligation to search for opportunities that can potentially make use of play activities observed during the development of play competencies in pre-school children. The purpose of the study: Its purpose is to identify the features of game playing competencies at pre-school age, to determine the dynamics of development of their abilities at senior pre-school age, and to explore variations in the gaming abilities of the children. Methods of research: The principal method in the study of this problem is the included observation. This approach has enabled a comprehensive analysis of the play competences of children of senior pre-school age. Results of the research: The authors present the specifics of the development of play skills in senior pre-school children. They also verify the features of play competencies in groups of girls and boys, as well as identify the structural organization of the play abilities in the senior pre-school age. Practical significance: The materials of the article can be of practical use for pre-school organizations and establishments, as an aid for training and improving the professional qualifications of teachers of pre-school organizations, plus in the practice of family education.

**Keywords:** play, play competencies, observation of play activities, urge to play, role-playing.

### 1. Introduction

The playing of games is a vital, innate process that enables a child to thrive in the modern world. Game playing is a joyful state for the child, an important and fundamental element in life development, an activity based upon pleasure, involving uncertainty, challenge, flexibility and productivity. (Declaration, 2015).

The idea of games and play being the most important part of children's life formed the basis for the development of the Federal State Educational Standard for Pre-School Education (FSES-

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PSE), and also the Professional Standard for Teachers.

According to the requirements of FSES-PSE, the implementation of the pre-school education program should be carried out "in methods specific to children of this age group, primarily in the form of a game..." (FSES-PSE, 2014). It is during game play that "a full-fledged residence", by a child of the pre-school childhood period, is possible. Conditions are created that enhance and expand the opportunities for child development. Professional Standards enable the teacher to identify and focus upon such tasks as providing nondirective help to children, supporting their spontaneous play, enriching it, plus ensuring that game time and space is made available (Teacher's Professional Standard, 2017).

The game, play activity, relationships in the game and features of play activities have often been the subjects of foreign and domestic research, both in psychology and in education:

- an 'activity' approach to the development of the game (Dyachenko, 2007; Panko, 2009; Polivanova, 2016; Smirnova, 2010; Trifonova, 2014; Elkoninova, 2007);
- the relationship of children in the game (Abramenkova, 2000; Litvinova, 2003; Samsonova, 1995);
- game as a condition for the socialization of the child (Anikeeva, 1987; Gazman, 1991; Reprintseva, 2008; Chernaya, 2010; Landreth GL, 2012; Schaefer, 2001);
- self-regulation in the game (Sharov, 1997; Chernobrovkina, 2004);
- a socio-evolutionary approach (Rakoczy, 2010);
- a cognitive approach (Leslie, 2000).

An important component of game activities can be found in the development of play abilities that allow children of pre-school age to successfully socialize and therefore more easily build relationships with peers and adults. It is the development of play abilities that helps pre-school children to further achieve the targets set out in the FSES-PSE (FSES-PSE, 2014).

Based upon the main features of play, relying on the structure of the specific game and its doctrines, demanding, behavioral, communicative and cognitive, we discover the following definition of play competence: play competence is related to acquiring the skills necessary for the implementation of each specific play activity. They include motivational- and emotionally-evaluated components.

## **2. Materials and methods**

We organized this study of play competencies on the basis of observations of role-playing games, utilising the observation table 'Study of the play capabilities of children of senior pre-school age'.

This table is represented by five blocks, namely: motivational-need, cognitive, behavioral, communicative, and emotional-evaluation.

Each block is represented by indicators which characterize the playing abilities of children in the senior pre-school age group, as expressed through role-playing:

- 1) Motivation and needs component: The child's natural urge to play, their ability to formulate a play goal and to set a play task, freedom to plan the game plot, then using initiative and independence to choose a role and also the play actions;
- 2) Cognitive component: Modeling of the plot, incorporating ideas about the surrounding world into the game, demonstrating rational thought processes within the play, exhibiting imagination and creativity, plus identifying the timescale over which the story will unfold;
- 3) Behavioral component: Role conduct (the ability to choose a character and the show of a degree of awareness about it, the stability of the role, the expressiveness of the character, plus making a preference about which role to take). The play actions (matching the play actions of the chosen role, the content and variety of play actions, the nature and the degree of generalized play actions). Play subjects (the characteristics of the play objects used, the degree of independence shown in the choice of substitute items and attributes for games). Game relations (the nature of play associations, the nature of play relationships, plus the ability to negotiate with peers during play);
- 4) Communicative component: Accompanying independent play with speech, speech activity during the play, and the featuring of role-playing speech in the game;
- 5) Emotionally-appraising component: Demonstration of passion, attitude, and the expression of emotions during play.

Evaluation of the play competences is measured on a five-point scale. Each indicator is estimated, ranging from 1 (minimum), through to 3 (enough), and up to 5 points (excellent).

When calculating this observation data the main (1, 3, 5) and intermediate (2, 4) scores are used.

Based upon the evaluation of the blocks and indicators a conclusion is made about the development of competencies in the role-playing game amongst children of senior pre-school age:

From 1 to 2.5 points – the minimum level.

From 2.6 to 4 points – a sufficient level.

From 4.1 to 5 points – an excellent level.

Filling the observation card requires the maintenance of a surveillance protocol.

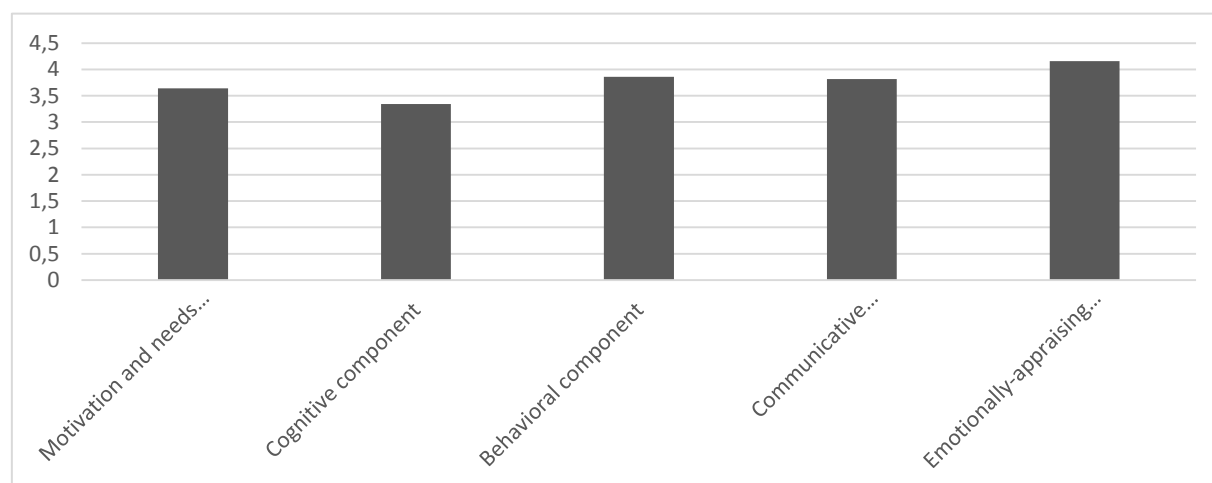
Qualitative and quantitative methods were used in order to process the data obtained. The results are presented as indicators of the mean of the parameter. When making comparison of independent groups, the Student's T-criterion for independent samples was used. Cluster analysis of observations and hierarchical clustering, by the method of intergroup relations, were also used for data processing.

The study involved pupils from the 5-7 year old group, all enrolled at pre-school educational organizations in Moscow. The total number of subjects studied was 179.

### 3. Results

Let us dwell on the results of the study of play competences of children of senior pre-school age, using the Observation Card 'Study of the play competences of children of senior pre-school age'.

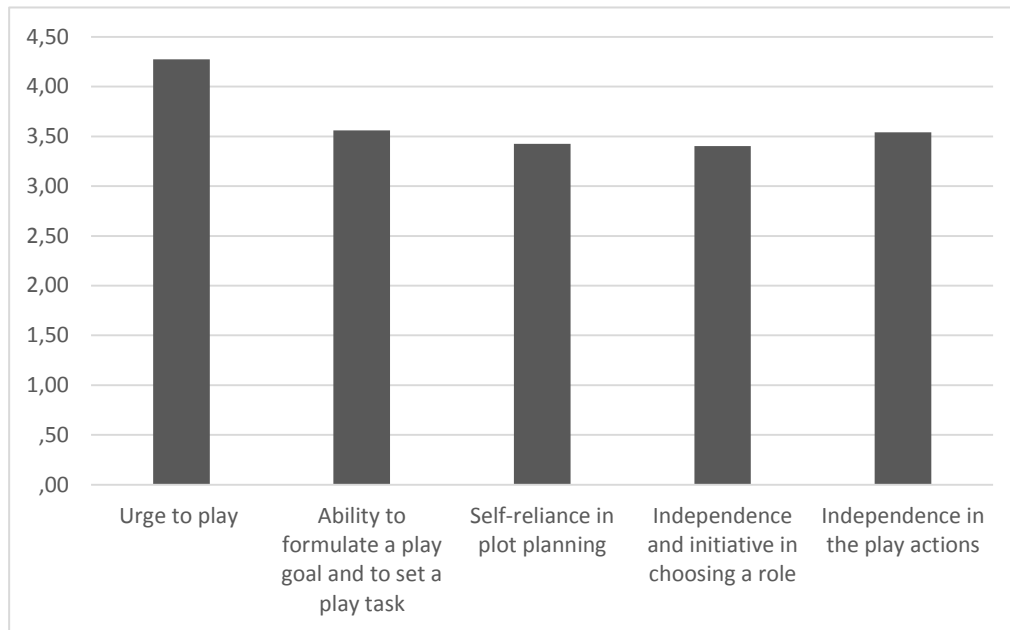
The average value of play competency development in children of senior pre-school age is 3.78 points, which relates to the 'sufficient' level.



**Fig. 1.** Average values of the main components of play competencies for children of senior pre-school age

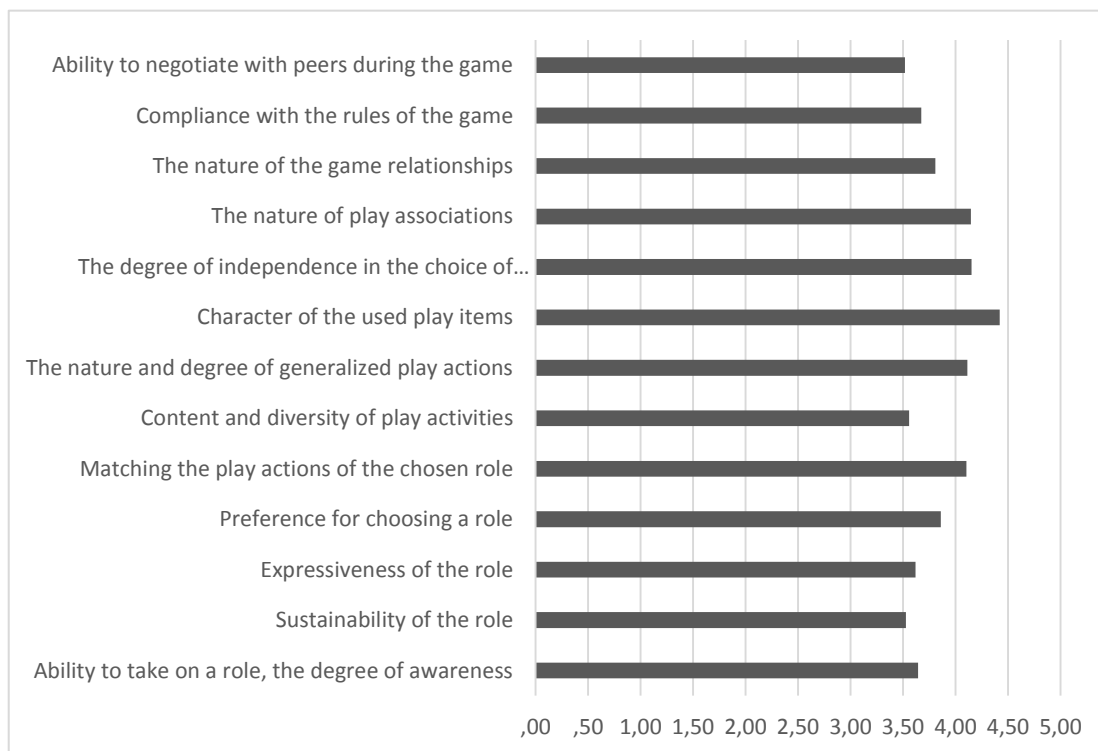
The smallest values for the development of play competencies are revealed in the cognitive component. The obtained data is confirmed by results of the observations of the children's play activity, which show that children do not sufficiently use the ideas about the surrounding world (physical properties of objects, geographical representations) in their play, only occasionally supplementing traditional games with their own ideas about reality, the monotony of plots and play actions.

A more detailed analysis of the play competence indicators - characterizing the 'motivational and need' component - shows that the 'urge to play' indicator (4.27 points) is the most pronounced (Figure 2). The lowest indicators are found in the areas of 'self-reliance in plot planning' (3.42 points) and 'independence and initiative in choosing a role' (3.40 points).



**Fig. 2.** Average values of the ‘of the motivational and need component’ of play competences

Next we turn attention to the analysis of the behavioral component of the play competencies (Figure 3).



**Fig. 3.** Average values of indicators of the behavioural component of playing competencies

The overall average value for the ‘behavioural component’ is 3.86 points, with deeper analysis showing that the most significant indicator within this block is ‘Character of the used play items’ (4.42 points). This indicator is the closest to the values of the ‘excellent’ level of development of playing competencies. It reflects well on the ability of children to select game items in accordance with the role. Other aspects which are indicated to top the 4-point threshold are ‘The degree of

independence in the choice of substitute items and attributes for games' (4.15 points), 'The nature of game associations' (4.15 points), 'The nature and degree of generalized game actions' (4.11 points) and finally 'Matching the game actions of the chosen role' (4.10 points). These indicators suggest a fairly high level of development of play competencies, in terms of the formation of game actions, the use of play items and the development of game relationships.

Next, we attempted to identify the specific details of play competencies in groups of boys and girls. The data obtained from both groups, characterizing the playing abilities of the children of the study group, are reflected in Table 1. The level of development of play competencies in groups of boys and girls achieves 'sufficient' level (3.67 and 3.91 points, respectively). It should be noted that, in the case of the girls' group, higher values for all indicators of play competencies are revealed (Table 1). The one exception was the indicator for 'The degree of independence in the choice of substitute items and attributes for games.'

In terms of reliability in the average points differences between the boy and girl groups, we settled upon the 'Student's T-criterion'. As can be seen from Table 1, significant differences are revealed in the averages for 'The duration of unfolding game scenes' ( $t = 2.437$  for  $p < 0.016$ ), which indicates that girls are characterized by a preference for playing longer games. They have the ability and desire to play a game for several days and, as a rule, are able to resume the interrupted storyline each day. The trend is established that the results of girls are higher for the parameter 'Stability of the role' differ ( $t = 1.965$  for  $p < 0.051$ ). This demonstrates that a group of girls will tend to project more stable role behaviour throughout a game, than an equivalent group of boys.

**Table 1.** The average values of the playing competencies in the separate girl and boy groups, showing the variances in their differences, according to the Student's T-criterion.

Indicators of play competence	Group		Student's T-criterion	The Importance of Diversity
	of girls	of boys		
Urge to play	4,32	4,24	-,425	,672
Ability to formulate a play goal and to set a play task	3,61	3,52	-,367	,714
Self-reliance in plot planning	3,63	3,26	-1,515	,132
Independence and initiative in choosing a role	3,54	3,30	-,956	,340
Independence in the play actions	3,70	3,42	-1,193	,235
Simulation of the plot	3,30	3,07	-1,023	,308
Duration of unfolding game scenes	3,81	3,27	-2,437*	,016
Ability to take on a role, the degree of awareness	3,72	3,58	-,708	,480
Sustainability of the role	3,76	3,34	-1,965*	,051
Expressiveness of the role	3,81	3,46	-1,627	,106
Preference for choosing a role	3,94	3,80	-,643	,521
Matching the play actions of the chosen role	4,32	3,93	-1,914	,057
Content and diversity of play activities	3,77	3,40	-1,734	,085
The nature and degree of generalized play actions	4,27	3,99	-1,543	,125
Character of the used play items	4,57	4,30	-1,572	,118
The degree of independence in the choice of substitute items and attributes for games	4,12	4,18	,371	,711
The nature of play associations	4,21	4,10	-,526	,600
The nature of the game relationships	4,00	3,65	-1,742	,083

Compliance with the rules of the game	3,73	3,63	-,488	,626
Ability to negotiate with peers during the game	3,58	3,47	-,472	,637
Accompaniment of independent game speech	3,89	3,87	-,085	,933
Speech activity during the game	4,00	3,73	-1,339	,182
Features of role-based speech	3,91	3,62	-1,424	,156
Emotional attitude to the game	4,30	4,04	-1,200	,232

Here: \* –  $p < 0,05$

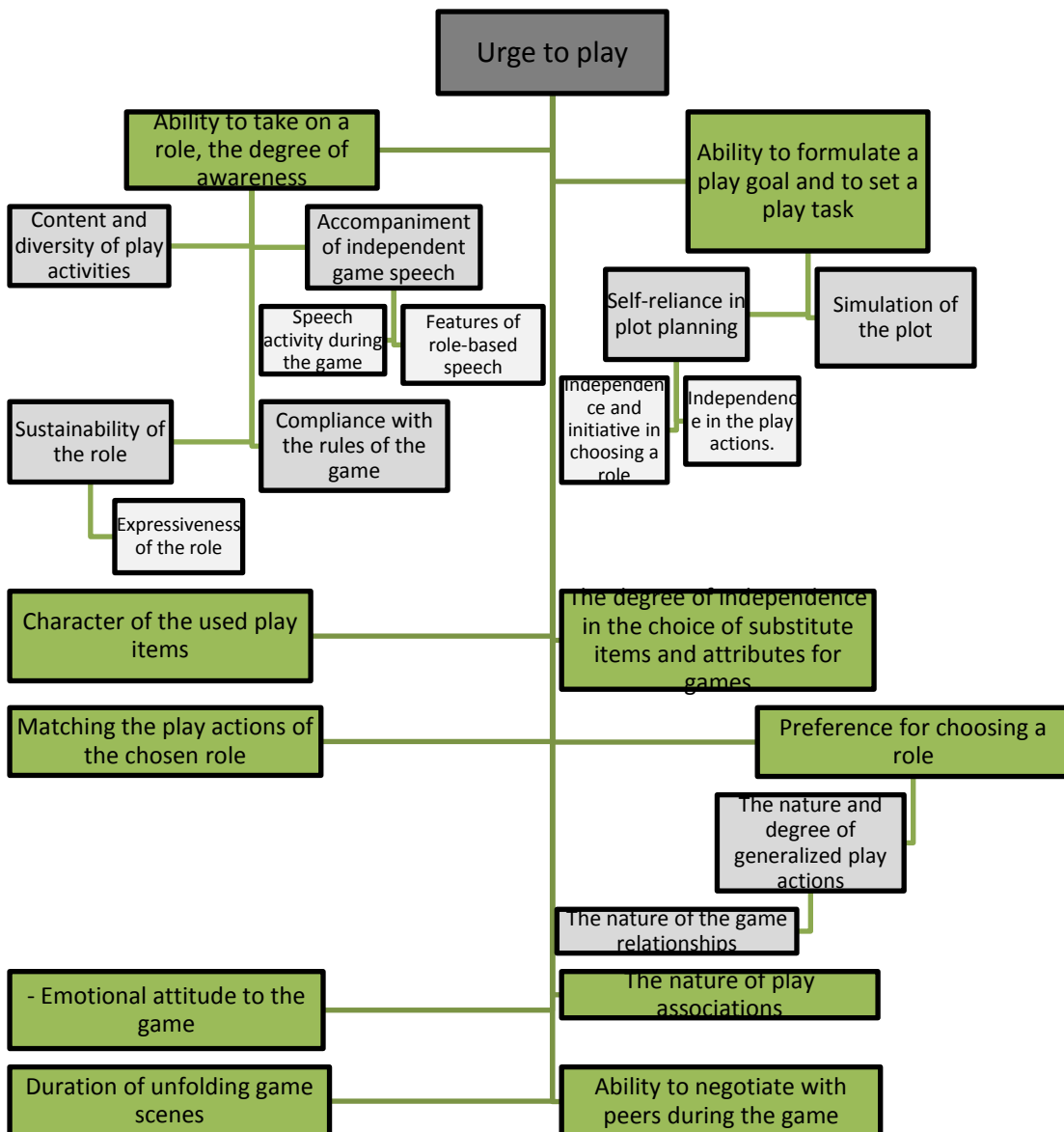


Fig. 4. Hierarchical structure of play competences of children of senior pre-school age

When considering the specifics of the development of play abilities at senior pre-school age it is important to identify the algorithm that drives their manifestation and development. To this end we carried out a hierarchical cluster analysis. On the basis of hierarchical clustering, we created a structural diagram of the play competences of children of senior pre-school age (Figure 4).

Figure 4 shows that, in the hierarchical structure of play competencies, in children of senior pre-school age, the indicator for 'Urge to play' occupies the lead position. It therefore follows that, in the development of play competencies, it is necessary to accept and support that there is a natural need in children to play.

#### **4. Discussions**

Analysis of the practices of pre-school educational organizations and establishments indicate that there is a contradiction, with, on the one hand, recognition of the role of 'the game' in the development of a child of pre-school age, yet, on the other, an insufficient utilization of its potential to enhance the lives and activities of children of this age. In this case, the pre-schooler's play patterns determine the formation of the main foundation of their age and establishes the personal meanings that motivate the activity. An important component in play involves the formation of play competencies that allow children of pre-school age to socialise successfully and build relationships with peers and adults. This situation creates a need to consider the features of the play activities of modern pre-school children and to search for opportunities to use the potential of these activities in the formation of play competencies for pre-school children.

As the results of our study show, the 'emotionally-evaluative' component is the one which displays the highest average value from play competence indicators. This is characterised in the manner by which children demonstrate a positive and stable attitude to the game, are generally able to control their emotions during the game, plus can sympathise and empathise with the characters and other participants of the game. The lowest rating values for the development of play competencies are revealed in the cognitive component area. According to the studies of E. Lasley, L. Haas and D. Nabors, when playing, children ask more analytical questions, weigh up their choices, build new schemes, structure, and restructure, cause-effect relationships (Lasley et al., 2016). In this case, we consider it necessary to use the potential of children's play in the cognitive development of children of senior pre-school age.

Analysis of the indicators of play competencies show that it is the 'Urge to play' that proves to be the most significant indicator. As B. K. Olofsson suggests, the children "can, for a long time, keep playing an activity if others do not interrupt them and do not force the child to grow prematurely" (Olofsson, 2015).

In this case, the 'need' for the game play is what determines the development of the capabilities of the lower level. Namely, this involves the ability to take on a role, to develop an ability to formulate a game goal, to set a game task, as well as a number of other indicators that involve behavioural, cognitive and emotional-valuation components. We can assume that the urge to play, stipulating the development of the underlying play competencies, develops to a higher level, which in turn ensures an even higher level of progress in play abilities with children of senior pre-school age. Thus, some kind of inter-dependent system for the development of play competencies of children of senior pre-school age is determined by the urge to play.

The least sign of improvement tend to be found in the areas of 'Self-reliance in plot planning' and 'Independence and initiative in choosing a role'. This may be due to the fact that, quite often, playing activity in an educational organization is a purposeful process, organized by an adult. "In their desire to provide for all the potential threads for child development, adults leave little time for play activities... "Children do not enter into the life of adults, they create their own worlds, ones that, whilst extremely saturated, are nevertheless isolated, within which children exist" (Avdulova, 2009). In this regard, in the early pre-school period, children from an under-developed form are presented with an opportunity to independently plan the plots of games, and use their initiative, when choosing a role. Children of older pre-school age often develop and expand upon the stories that were initiated by adults. They are, however, not always able to choose the role themselves due to the process of role allocation generally being controlled by an adult.

## 5. Conclusion

The conducted research allowed us to conclude that the following features of play competences of children of the senior pre-school age are fact:

1. The development of play competencies in children of senior pre-school age is at a 'sufficient' level.

2. The most significant element in the average values of the play competence indicators is the 'emotionally-evaluated' component, as characterised by the fact that children who demonstrate a positive and stable attitude to game play, are, in most cases, able to control their emotions during such games, and also can sympathise and empathise with the characters and participants that they engage with, within the game.

3. Analysis of the average values of the various indicators of play competencies have revealed that the most pronounced indicator of all is that of the 'Urge to play'. The importance of this pointer in the structure of play competencies is confirmed by the results for 'Cluster analysis' and offers grounds to argue that the development of the system of play competences for children of senior pre-school age is determined by the 'Urge to play'. This urge influences and determines the ability to take on a role, affects the degree of awareness and the ability to formulate a game goal, enables the setting of game tasks, as well as a number of other indicators of behavioural, cognitive and emotional-valuation components.

## 6. Recommendations

The materials and conclusions of this article can be useful in the decision as to which practices might be employed by pre-school organizations and establishments, and also for the training and development in professional qualifications for teachers of pre-school organizations who are engaged in the practice of family education.

## 7. Acknowledgments

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