

# Differences in Children's Play in Homogeneous and Heterogeneous Classes in a Kindergarten

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## Abstract

*Most of the things children do are learned by playing. Children's play is seen as intrinsically motivated. Active participation in playing allows children to develop different abilities and skills necessary for life in the community. Through playing, a child learns to establish satisfactory relationships with other children and becomes socially competent.*

*The research suggests that there are differences in social competence among children of the same age who attend kindergarten. Learning through playing is one of the ways to acquire social skills, so we were interested in finding out possible differences in children's play in these groups. The aim of the study presented in this paper was to determine whether there were differences, and if so, in which areas of play. For this purpose, a questionnaire was constructed on the basis of what teachers in both groups had observed and recorded considering the different aspects of playing behaviour of children aged 5-7 years. It should determine the way in which children organized play activities and how they participated in them. The areas in focus included the following: partnership in play, type of activity, characteristics of play, and communication during play.*

*The obtained results could contribute to determining the difference in children's play in homogeneous and heterogeneous kindergarten classes, giving us better insights into the differences related to children's social skills.*

**Key words:** heterogeneous classes; homogeneous classes; play; playing; social competence.

## Introduction

The main activity of preschool child is play. Play is a child's way of learning, developing and maturing. In some definitions, play is identified with *work* in children's world. Hughes (2010) refers to King's research (1979), in which children themselves experience play as "work" when they are offered with incentives by kindergarten teachers, but when the same incentives come from children themselves, they classify it as play. Rogers (2011) explains this as the evolution of play from play as contrary to work, play as work, and play as a learning process. To define play, it is necessary to state its main features. Play is intrinsically motivated and self-selected, it provides children with satisfaction leaving space for its upgrading where a child can actively participate through imagination (Hughes, 2010). Earlier studies were dealing with play from the perspective of adults, while more recent studies have been trying to explain what playing means for children. Thus, Sheridan et al. (2011) suggest that young children define playing as an activity that is self-selected and organized. Wood and Attfield (2005) describe it as a wide range of behaviours that are put in different contexts, having different meanings for children and different meanings for adults. They are among many authors who associate play with early childhood curricula, emphasizing learning through playing as the fundamental attribute of the curricula. Sheridan et al. (2011) point out that, in the environment of early education institutions, children's ability to experience play as a self-selected and voluntary activity is particularly prominent, where *non-play* is the one that is offered to children through structured and organized activities. Regardless of whether a child experiences play in one way or another, it is certain that, within these forms of communication, the child takes part in a variety of social encounters. Hughes (2010) states that, through playing, it is possible to experience competitiveness and cooperation at the same time, which is its exceptional social value.

Social development is the aspect of evolution/growth that is extremely important for the prosperity and well-being of any individual. Some authors (Chabot & Chabot, 2009; Greenspan, 2004; Weisbach & Dachs, 1999) cite studies which have proved that cognitive intelligence necessary for success in school is not crucial for success in life and that people with higher IQ are not significantly more successful at any scope in life than those with average IQ. These authors emphasize the importance of other competences - social and emotional - as rather important factors that affect later efficacy. The social environment in which a child is growing up is extremely important for the development of all aspects of one's personality.

Nowadays, life in the contemporary world has changed the dynamics of family life. The duration of a child's stay in early education institutions has been extended. Today, children arrive to preschool institutions much earlier and stay longer over the day than before. These facts accentuate the important influence that the institutions of early education have on the development of children. The environment in these institutions, where they actually grow up, provides them the opportunity to develop

their social competences due to many occasions where they can manifest what they have learned: within the environment of adults, but also within the environment of children, of the same or/and different age. In order to develop social competences, it is not sufficient only to have a role model from which a child would learn, it is also necessary to give a child an opportunity to test and practice what he or she has learned. Armstrong (2008) states that through playing with other children in a group of peers, a child is improving his or her social learning by actualizing social roles that are based on what he or she sees in society and by adjusting his or her own behavior during play with the needs and demands of his or her environment.

Many authors have defined the concept of social competence. Rodger (2012) determines private/personal competence as the one that shows how we feel about ourselves, including self-awareness, self-regulation, motivation, empathy, and social skills. He explains social competence as the ability to establish satisfying and reciprocal relationships with other people. Such definition of social competence is also given by Katz and McClellan (2005). One of probably generally accepted definitions of social competence could be the one that describes socially competent children as those who are engaged in satisfying activities and interactions with adults and other children and enhance personal competence through such interactions. That would mean that a socially competent individual is everyone who is able to achieve satisfying relationships with other individuals, without harming either his/her or someone else's personality. According to Katz and McClellan (2005), we distinguish two aspects of social competence: peer status or popularity and friendship. Peer status is one-way/ unidirectional and it measures the level at which the peer group sympathizes or accepts a child, while friendship is a relationship that presumes mutual selection of two specific children. It is possible that a child is very popular among its peers but fails to develop friendships. Also, it is possible to have a reverse situation where an unpopular child develops one or more friendships.

Studies (Glavina & Višnjić Jevtić, 2010) show that children in age-heterogeneous groups are socially more competent (age 3-7 years) than children who attend homogeneous groups (children aged within the range of 12 months). Katz and McClellan (2005) state that, in groups of mixed ages, children are given more opportunities to give and receive help. In this way, they come in the position to practice different social behaviours and increase their social competences. According to the same authors, there is evidence which proves that development, including social development, is considerably faster in mixed age groups. Petrović-Sočo (2007) also highlights the importance of mixed age groups explaining that children are proactive beings who by themselves and in interaction with others develop their knowledge/ skills and, in order to be able to do that, they need younger children who will help them and older children with whom they will share actions and suggestions/comments and revise what they have already partially learned (Petrović-Sočo, 2007, p. 95).

Alternative pedagogical concepts also emphasize the benefits of mixed age groups. Highlighting the importance of the development of each individual in cooperation

with others is found in the Freinet concept (Matijević, 2001), where the importance of cooperation is being emphasized: among students in class, between students in the same group, between schools, local communities, which indirectly leads to the conclusion that it is important for a child's individual development to interact with individuals of different chronological age in order to achieve cooperative learning. In her pedagogical work, Maria Montessori (as cited in Petrović-Sočo, 2007) also highlights the importance of mixed age groups, pointing out that different stages of a child's development allow older children to take over the role of a teacher to younger children. Steiner (as cited in Jaffke, 2006) emphasizes the structuring of age groups, comparing them with a large family where not all children are of the same age.

As it has been already pointed out, children acquire and learn their social skills in different ways. Learning through playing is one way. Given that, according to numerous studies, social competence of children in age-heterogeneous groups is more developed than social competence of children who attend homogeneous groups, the aim of this study is to determine whether there are differences in play/ing between these two groups of children.

## **Methodology**

### ***Participants***

This study included 14 teachers from a kindergarten in Čakovec. They filled out a questionnaire about play experiences considering 163 children (76 girls and 87 boys) who were attendees of the above-mentioned kindergarten and were aged from 5 years (the youngest child was aged 5 years and 9 days) to 7 years (the oldest child was aged 7 years, 1 month and 6 days). Eighty-four (51.5%) of them attended heterogeneous groups (8 heterogeneous groups) and 79 (48.5%) of them attended homogenous groups (4 homogeneous groups).

### ***Procedure***

Preschool teachers filled out the questionnaires individually, according to instructions previously given in the written form, also a part of the questionnaire. The researchers were present during the procedure in order to answer possible questions and concerns of teachers. All teachers who completed the questionnaires had been also working as Group leaders for the targeted/evaluated groups of children for at least 6 months (from the beginning of the school year). All children, who were evaluated in this study, had been attending these groups for at least 6 months (from the beginning of the school year). The assessment did not include children who joined the group during the current school year 2012/2013.

### ***Means of Verification***

The given questionnaire "Children's experience in play" contained some basic information about every child: date of birth, age, gender, and the group he or she

attended (homogeneous/heterogeneous); it was anonymous for both children and teachers who filled it out. It consisted of 14 questions/items, among which there was one question about the type of activity spontaneously chosen by the child when playing in which educators could choose more than one answer, while for all the other questions, they could choose just one answer. The teachers evaluated the following areas: partnership in play, type of activity, characteristics of play and communication during play. As a basis for the preparation of this questionnaire, the questionnaire "Circle of friends and social skills" (Wolfberg, 2003) was used (with the permission of the author).

## Results

The obtained results on some items/questions in the questionnaire were analyzed by using the PASW Statistic 18 software. Along with descriptive analysis, the analysis with *non-parametric* test for independent samples – *Mann-Whitney U test* – was performed for each item/question, concerning whether a child attended a heterogeneous or a homogeneous group.

Regarding partnership in play, there was no statistically significant difference between children in the age-heterogeneous and homogeneous groups in terms of gender, nor in terms of socializing in play with one or more children. We could say that this study showed that children in age-heterogeneous and homogeneous age groups equally selected their play-mates among children of the same and of the opposite gender. Besides, children in both groups played with just one child or more children. There was a statistically significant difference in play within large (more than 5 children) or small groups (2-5 children) ( $t=.005, p<.05$ ). This difference showed that children who attended homogeneous groups often played in larger groups (more than 5 children), while children who attended heterogeneous groups preferred small groups (2-5 children). Also in heterogeneous age groups it was shown that children often chose younger children for their partners in play ( $t=.002, p <.05$ ).

As for the types of activities spontaneously required in play, there was no statistically significant difference between children in the heterogeneous and homogeneous age groups, between different types of chosen activities (face to face interaction, physical activities, sensor activities, imitative plays, dramatizations, music activities, art activities, and playing at the table), nor regarding the developmental level of play (manipulative-sensory, functional and symbolic). However it was found that children in age-heterogeneous groups significantly more often chose play managed by adults than children in homogeneous groups ( $t = .005, p <.05$ ).

A statistically significant difference was found in some of the specific characteristics of play. Children in age-homogeneous groups were more often focused on one toy ( $t=.003, p<.05$ ) than children in heterogeneous groups. However, children in these two groups did not differ in the appearance of stereotyped behaviours in play, aggression towards others, and destruction of toys. In both groups, an equal number of children

enjoyed only one play activity, as well as several or many different activities. Also, there was no difference in the style of playing between children in these two groups (behaviour in playing of an equal number of children in both groups was active, passive and isolated).

Communication during playing did not differ in age-heterogeneous and homogeneous groups. An equal number of children used complex speech-sign language, simple speech-sign language, and sign language only. Also, an equal number of children in both groups was determined by using the following communication models in playing: isolation, observation, participation in parallel play, active participation and co-participation. There was no statistically significant difference concerning the dominant role throughout playing, thus, an equal number of children in both groups had a dominant and non-dominant role during play time activities.

## **Discussion**

Play is an important factor in physical and mental development of children, an activity that prepares children for effective social communication (Tahmores, 2011). According to many studies, play, play therapy, even the type of toy, have beneficial effects on children's mental and social development (Tahmores, 2011). Starting from this premise and previously mentioned studies showing that children in heterogeneous groups are socially more competent than those in homogeneous groups, we designed this study to determine differences in playing between children attending heterogeneous and children attending homogeneous groups. Thereby, we tried to cover different aspects and characteristics of children's play in these groups: type of activity preferred by children during play, partnership in playing, characteristics of the play itself, and communication during the playing process.

Results showed that children in heterogeneous groups often chose to play with younger children. Reasons for that would perhaps lie in the possibility given in such situations where they could more often be in a role of a socially more competent individual, what gives them more space to practice and experiment with their social skills. Additionally, they perhaps did so because they felt more competent and ready to start and plan activities, and also to provide meaningful guidance, to recognize needs and emotions of others, as well as to show interest in another person and other indicators related to social skills. Within such behaviour, they show much greater sensitivity towards the needs of others (Glavina, Višnjić - Jevtić, 2010). This result is in accordance with the reflections of Rubin, Bukowski and Parker (2006), who state that children of age three to five years more frequently play with their peers. However, they also point out that the main link for achieving partnerships in playing is mutual interest they share for playing and similarity of character. Consequently, it is possible to conclude that younger children show interest in older children's play, which is recognized by older children as mutual interest and, because of this, they choose them as their co-players.

Children who were in heterogeneous groups were more likely to play in small groups (2-5 children), while children in homogeneous groups more often chose to play in larger groups (more than 5 children). We assume that a small number of children in the group require much greater mutual focus and, because of that, a wider range of social behaviours, but at the same time provides more opportunities for the development of social skills. Also, in heterogeneous groups there is overall a smaller number of children because of the prescribed/given standards.

Children in heterogeneous groups were much more focused on play guided/led by adults than children in homogeneous groups. This finding is surprising since we expected that children in heterogeneous groups would have more opportunities to choose a partner in play because of different age and related developing status due to which they would less often choose activities led by teachers. However, we cannot disregard the competences of teachers who work in these groups. Considering how different the needs of children of different age are, we can assume that educators organize a great number of activities in order to facilitate satisfaction of so many different needs, and this is recognized as an activity led by teachers. But if we look at the curricula performance in Croatian early education institutions, which is based on an individual approach to each child, then this explanation may not be sufficient, since individual approach is required for every child regardless of his or her age or group that he or she attends. This result can be observed in the context of the confirmation of Parten's study into social participation (Rubin, Bukowski and Parker, 2006), which says that children under the age of five spend less time playing with their peers but play next to them.

Other aspects and characteristics of play did not show statistically significant differences between children in homogeneous and children in heterogeneous groups. The reasons for such results can be found in the organization of the kindergarten in which the study was conducted. Namely, the curricula of that specific kindergarten include spacious and playing openness, as well as the possibility to choose activities according to children's interest. Also, during their stay in the institution, children are given the possibility to communicate and play with children of different ages. This way of organization optionally allows all the children to spend a certain part of the day in heterogeneous groups, which can be the reason for these small differences in the characteristics of free playing.

Play is a tool that enables children's emotional, social, and mental development (Tahmores, 2011). Functional and constructional play becomes rare in this period of a child's life, while symbolic play is developing and thriving. The main task of childhood is to enable children to easily get into this kind of social activities. Children's ability to participate in symbolic play is the key factor in child's development (Baron - Cohen, 1987). Symbolic play is positively connected with the development of social competences and social skills (Westby, 2000). Programmes for improving social competences of preschool children, based on playing, are more successful (Aksoy,

Baran, 2010). Kernan (2011) points out that it is precisely in this type of activity that children have to find a satisfactory way of entering a relationship in which there are differences in opinions, relations and criteria that determine membership in this group. The aforementioned are just some results of studies and notes of authors who are in favour of playing as an important factor of social skills development. Therefore, we can assume that children who are more competent in playing, in this case children in heterogeneous groups, can organize and implement different play than children who are less socially competent. However, within detailed analysis of the mentioned papers/studies, it can be seen that play on which those authors focus has elements of *leadership* and structure managed by adults. The aim of this study was to assess children in free playing situations, in no way managed by adults. This is a possible reason why the survey did not confirm the earlier mentioned ones.

Our findings could also be heading towards thinking that there are no differences in playing of children who attend heterogeneous or homogeneous group, but that differences in their social competence come as a result of some other factors that are not taken into account in this study. We can assume that educators, working in heterogeneous groups, are socially more competent and therefore a better role model for children and their social skills development. We can also assume that parents of children attending heterogeneous group are themselves socially more competent, and that because of that they can better understand the benefits of such group in terms of social development, and as such provide a good example and encouragement to their children in their social skills development (Glavina, Visnjić - Jevtić, 2010). So, all these can be the reasons for a slightly higher social competence of children attending heterogeneous groups.

## **Instead of the Conclusion**

This study was aimed at scrutinizing just one of the possible aspects of learning social skills, and that is free playing. Future studies could address other aspects of learning social skills, such as: play led by adults, learning from a model, interaction of children during daily activities; all in order to get better insights into the bigger social competence of children attending heterogeneous groups in preschool institutions.



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# Razlike u igri djece u homogenim i heterogenim dobnim skupinama u dječjem vrtiću

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## **Sažetak**

*Većinu onoga što znaju i umiju djeca su naučila igrajući se. Igru djece obilježava intrinzična motivacija. Aktivno sudjelovanje u igri djeci omogućuje razvoj različitih sposobnosti i vještina koje su nužne za život u zajednici. Kroz igru dijete uči ostvarivati zadovoljavajuće odnose s drugom djecom i tako postaje socijalno kompetentnije.*

*Istraživanja govore o razlikama u socijalnoj kompetenciji između djece iste dobi koja pohađaju homogene i djece koja pohađaju heterogene skupine. S obzirom na to da je učenje kroz igru jedan od načina usvajanja socijalnih vještina, zanimalo nas je da li se igra djece u navedenim skupinama razlikuje. Cilj istraživanja prikazanog u ovom radu bio je utvrditi postoje li te razlike i ako postoje na koja se područja igre odnose. Zbog toga je konstruiran upitnik na temelju kojeg su odgojitelji u jednim i drugim skupinama opažali i bilježili različite aspekte ponašanja za vrijeme igre djece u dobi od 5 do 7 godina, kako bi se utvrdio način na koji djeca organiziraju aktivnosti u igri i kako u njima sudjeluju. Područja koja su promatrali bila su: partnerstvo u igri, vrsta aktivnosti, karakteristike igre i komunikacija tijekom igre.*

*Rezultati istraživanja doprinose utvrđivanju razlika u igri djece u homogenim i heterogenim skupinama u dječjim vrtićima, što nam daje bolji uvid u razlike u socijalnim vještinama.*

**Ključne riječi:** *heterogene skupine; homogene skupine; igra; socijalne kompetencije.*