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PLAY AS A FIELD FOR DEVELOPMENT OF CHILD'S COMMUNICATIVE ACTIVITY

Introduction

Play, apart from its explorative, cognitive and social function, can be seen as a form of activity typical of a pre-school age level (Muchacka, 2002). Play involves the following qualities: nonliterality, intrinsic motivation, process orientation, free choice and positive affect (Huizinga, 1998; Johnson et al., 1998). Play is started spontaneously by children themselves or is organized by an adult. The research has proved that play plays a significant role in the optimal development. According to the researchers (Johnson et al., 1998) the relations which occur between play and development can be analyzed in three aspects. Firstly, play enables an adult to observe developmental changes, play reflects development. This form of activity provides a child with an opportunity of behaving in a spontaneous and natural manner, of revealing its competences. Secondly, play reinforces development. It enhances developmental acquisitions, it is a context in which a child exercises and consolidates its skills. Thirdly, play activity can bring about qualitative changes in development, it may stimulate such changes. Play functions as a natural format in which development of communication competence takes place.

Interactions between an infant and its mother play a significant role in language development (Deleau, 1993; Schaffer, 1995). For a mother, her child's nonverbal behavior carries communicative intentions, which are treated by her as speech acts. According to J. Brunner (following Bornstein, 1995) it is during play that first complex grammar constructions and pragmatic forms appear. Language system structures get considerably reinforced during the preschool age. Language starts to be a means of establishing social relations, and acquired

text and interpersonal rules allow a child to adjust speech acts to the needs of an interlocutor. However, the inability to express thoughts in words in a precise way impede the process of message construction, causing the child to resort to nonverbal means. Gestures serve the purpose of the most intentional communication (Kendon,1986) and frequently accompany child's verbal behavior, especially in peer relations.

D. McNeills's language acquisition theory (1992) explains the emergence of the speech-gesture system, the elements of which evolve parallel to each other. According to the author of this theory, both codes coexist in child's speech performance and language development undergoes three stages. Until the age of two, a child either speaks or makes gestures, a word and a gesture exist separately. Child's pointing at objects, appearing at the age of one, is seen as an introduction to speech development. In due course, gestures are used for action or object descriptions. The next stage in language development, taking place at the age of 3.5, involves speech in iconic gestures. A child, while learning space, time and interpersonal relations, does not know how to express them by means of words and therefore reaches for gestures, which help to perform such a task. The final stage of the language acquisition process, starting after the age of five, is characterized by learning and applying discourse rules and developing metaphoric gestures (abstract, signaling metanarration). Functional changes in gesticulation take place. Gestures, so far an element of movement or means of expression, become significant for the course of an interaction. By means of gestures a speaker provides a visual representation for the aspect of discourse not presented verbally. In McNeill's opinion, focusing only on verbal skills development rules out the possibility of accounting for child's communication achievements.

This paper presents the process of communication between peers at play and the relation between child's age and communication activity. The previous research has revealed that during a construction play with their peers, four and six year old children use both verbal and

nonverbal codes. Both the codes are vital for achieving understanding (Grochowalska, 2002). The comparison of the number of communicative gestures observed, indicates considerable gesture intensification in case of older children (U. Mann-Whitney's test $U=99,00$; $p<0.00$). Moreover, older children are capable of using complex nonverbal messages (for example a combination of two or three gestures).

Taking into consideration the above mentioned results and literary studies indicating the importance of play for child's communication skills development (among others Deleau 1993; Schaffer, 1995) , the researchers were looking for an answer to the question how, during one play period, the intensification and function of child's gesticulation changed.

Method

Developmental changes within nonverbal messages are the reason why the maximum age difference of children in a study group cannot exceed six months. The study comprised two age groups: 4.4-4.9 years old (30 children) and 6.4-6.9 (30 children). Attending kindergarten from the age of three served as a criterion for choosing the sample group. No more than five children were selected from a given kindergarten group.

The children were involved in a construction play with a peer they chose themselves. The children were placed in a separate but well-known to them kindergarten room and a play with " Lego" blocks was suggested to them. An adult presenting the blocks encouraged the children to play and build a house using the blocks. An adult stayed in the room but did not participate in the play. It was the fact of entering upon the play and the progress of communication while interacting and not a kind of a construction built by the children that were substantial for the study. The session was recorded by a hidden camera.

The analyses included verbal elements and gestures. In accordance with the empirical requirements (Scherer, Walbot, 1985) the chosen categories of hand, shoulder and head movements were clearly defined and easy to observe and record. The type of construction

play was selected on the basis of its great popularity among kindergarten children. What is more this type of play, when happening during an interaction, enhances children's communication skills.

Results

The analyses aimed at determining the changes in the type of gestures used by children during verbal interchanges accompanying the construction play and at observing the changes in gesticulation related to the subsequent stages of the play session. Multifunctionality of gestures discussed in the literature dealing with the topic (Kendon, 1986, 2000; McNeill, 2000) was, for the sake of the study, narrowed down to two types of behavior: autonomous gestures, completely substituting words, independent in meaning of speech or gestures, completing , repeating or illustrating words and as such making the meaning conveyed by words even more precise.

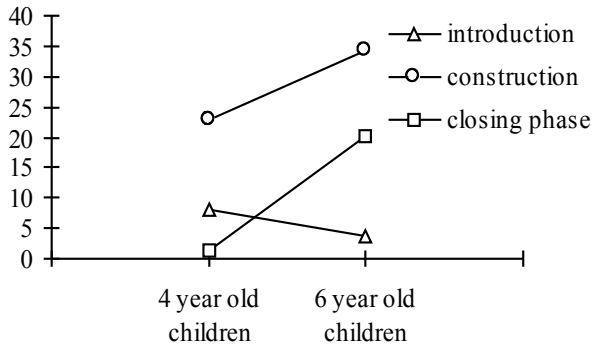
Out of 60 play sessions recorded, only those which were characterized by the presence of the three stages namely: *introduction, actual construction, end* , were selected for the analyses. At each stage the children aimed at different objectives. The introduction served the purpose of verbal repetition of the topic of the task, of getting acquainted with the toy and of reestablishing the willingness for common play. The next stage involved discussing the shape of the construction and the act of building. At the final stage, the children discussed the appearance of the construction, assessed it and presented its functionality. Eventually 58 play sessions, which complied with the described stage pattern ,were selected (30 plays of 6 year old children and 28 of 4 year old kids).

The children in both age groups communicated applying gestures. The use of a non-verbal channel is directly related to children's general verbal activity at play. Children who do not get involved in a verbal exchange with their play mate not only use very few words but

also the number of gestures used by them is limited. This regularity is very conspicuous in case of younger children. It is worth noticing that children at the age of four not always take up a diad format of play, in four cases parallel play could be observed, which however got included in the study due to the presence of great communicative activity of the children involved. Although they did not cooperate, each built a separate construction, they communicated in a nonverbal manner.

The analysis of the communication gestures revealed clear-cut differentiation in the frequency of their appearance, depending on the stage of play (graph 1). The members of both groups used this code most often while constructing a building, however 6 year old children resorted to this code more frequently than their 4 year old friends. The average number of gestures at the closing stage of play decreases in relation to the construction stage more considerably in case of 4 year old children than in case of 6 year old kids. 4 year old children resorted to the use of nonverbal code only occasionally. It is only during the introduction stage that this interaction is of a different type. With older children the average number of gestures is the lowest at this phase, while with 4 year old children the average number of gestures used during the introduction is bigger than in the closing phase ($F(1.56)=11.11;p<.0015$).

Graph 1. The relation between the average number of communication gestures and the play phase

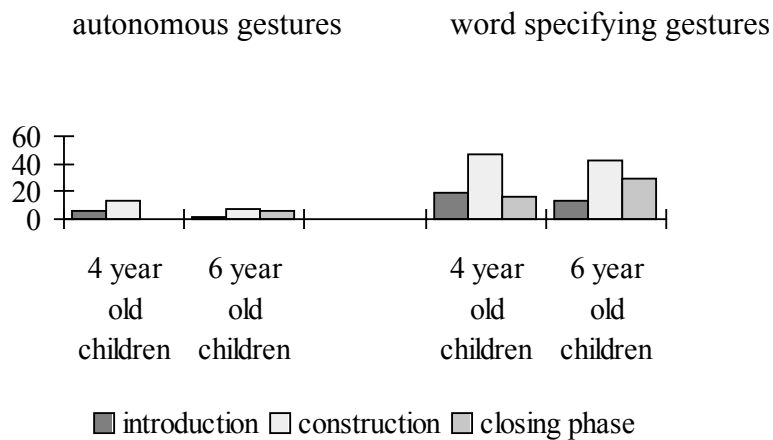


At play the gestures performed two complex functions: they were an autonomous, speech independent means of transmission as well as a form of verbal message specification. Specifying gestures dominate children's communication activity. The comparison of the proportions of the types of gestures used, indicates the similarity of their distribution in both groups. In case of 4 year old children the specifying means accounted for 80.9% of all the gestures recorded at the play time and for 6 year old children they accounted for 86.0%. The older the children the bigger the number of such gestures ($p,0.000$). Taking into consideration the average results of the autonomous gestures applied by younger and older children such a difference did not show ($p,0.183$). Here are some examples of autonomous gestures performed as an answer to the following questions: *Shall we make a garden?*- head movement *What is this?*- shoulder lifting. By using those specifying gestures the children created two-element messages, which made sense only when used together with words. For example: by a hand gesture they explained the way something moved- *It goes like this and next like that*.

Next it was tested what types of gestures appeared during the introduction, actual construction and final stages. The results are presented in graph number 2. The 4 year old children resorted to the use of both types of gestures more often than their older friends during the introductory stage, when establishing the interaction. In case of 4 younger children, who did not get involved in the interaction with their peer, only autonomous gestures were observed. However, at the closing stage the younger children, when assessing the final construction, did not use autonomic gestures and less frequently than the older ones specified words nonverbally. They finished the play when they were of the opinion that it was ready or when they did not want to continue. Whereas the older children in every fourth case treated the closing phase of one game as the beginning of a next one, which could be called : *What is happening in our house?* And it was at that stage that they applied both types of gestures to illustrate an imaginary action.

Graph 2. Autonomous gestures and word specifying gestures at the consecutive play stages.

(data expressed in %)



Summary and conclusions

It was found that at constructive play children often convey information using various codes, by which important affective and representational information can be added to speech. The presence of numerous gestures creates a kind of communication procedure suitable for a construction situation. Age is an important factor in communication activity. Communication by means of words and gestures is more intensive in case of 6 year old children than 4 year old ones.

Children's nonverbal communication activity changes according to the phase of a play session. The differences in language activity between younger and older children account for the differences in the proportions of gestures used at several stages of play. The tendency of 4 year old children for using autonomous gestures substituting words at the introductory stage, may result from the character of the situation. While planning the shape of a constructed building, children find nonverbal messages very helpful for a space description. 4 year old children already have the knowledge about ways of expressing spatial relations by means of language but this knowledge is not put into practice yet (Kielar-Turska, 1989, p.70). The

block construction play determines the use of deictic expressions (Wales,1986) and as shown by the research , frequent, especially among younger children, appeal to gesture. Older children have already partly acquired the ability to provide conscious space description thus diminishing the number of autonomous gestures replacing words. During the construction play situation gestures help define the position of objects in space and therefore an utterance becomes more precise and complete (Kendon, 2000).

The differences between the age groups can also be observed at the closing phase. None of the construction tasks performed by the younger children finished with the presentation of the functionality of a constructed object. Seldom did they use any word specifying gestures, autonomous gestures were not present. The older children (25%) while finishing the task commenced, in a diad, a new game, the beginning of which was marked by one of the participant's narration ,describing what might happen in a newly built house. It is likely that the introduction of animation called for the use of nonverbal word specification. These results are in accordance with N. Furuyama's (2000,p.116) suggestion that “ gesture is very sensitive not only to intrapersonal factors but also to the interpersonal factors in the communication situation”. The cooperation between the older children resulted from well developed verbal and nonverbal communication. A gesture, used at this stage of play could help regain peer's attention (Vila,1994) and encourage him to continue the play.

A preschooler has already learnt to speak and that is why we often neglect the nonverbal communication, which develops parallel. The analysis of preschoolers' non-verbal activity suggests, following some researchers' opinions (Kendon,1986, McNeill, 1992), that words and gestures constitute two elements of the same communication system. Play as a means of unrestrained expression should be perceived as a natural context in which children build communication competence.

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