Symbolic Play and Analogy: A Way to Foster Children's Creativity

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Abstract

The author discusses the relationship between symbolic play, abstract thinking, and divergent and associative thinking based on analogies, and finally connects symbolic play with the creative process. Play and the creative act are seen as similar by definition, since they are characterized as divergent, regulative, expressive and autotelic processes. Symbolic play is not only a product of the animistic and concrete logical way of thinking in childhood but also represents a mode of abstract thinking at the fictional symbolic level, which provides different options important for creativity development. Symbolic play is based on analogies with reality, and in this way reality is transformed in the imagination to be comprehended by the child. This transformation, which takes place in the nest of analogy at the symbolic level, is a key for creative production. Analogies in symbolic play are created through the divergent associative thinking process, also basic for any creative activity. The author has already used play as a tool to enhance creative behavior among young students in primary schools, and currently one project is being implemented in Serbia by the Institute for Educational Research with the intention of promoting initiative, cooperation and creativity by using play among other learning methods.

In order to analyze the function of symbolic play in creativity development among children of various ages we will try to answer the following three questions: (1) Why is symbolic play an abstract phenomenon? (2) Why is symbolic play based on the analogy mechanism characteristic of associative divergent thinking possesses? (3) Why is the analogy process a framework where creativity may appear more often?

In the seventh and eighth decade of the 20th century a number of researchers analyzed the multilateral relationship between play and creativity (Bruner, Jolly & Sylva (eds.) 1976, Smith, 1984, Dansky & Silverman, 1973, Eljkonjin, 1978, Piaget, 1972 etc.) continuing the ideas developed at the beginning of the century and providing inspiration for us today. Coming from that background we will try to answer the previous questions.

Play as Abstract Thinking

We think that symbolic or pretense play in childhood is a concrete as well as an abstract thinking phenomenon. It is a concrete phenomenon because symbolic play starts from perceptual data, which are collected through explorative, research and environmentally oriented play activity, focused on discovering the visible external world. Symbolic play also appears to be concrete for viewers since the play action is visible. However, symbolic play is also an abstract phenomenon. This means that children in play function at the higher level of thinking in order to understand/assimilate the perceptions collected in the environment. For that purpose children use imagination to spontaneously transform perceptions into new mental constructions, reflecting personal meanings in congruence with previous experience. Although the transformation process takes place through the concrete play action, it is distant from the concrete outside reality and belongs to the abstract phenomenon due to its symbolic character. We want to emphasize that symbolic play is not only a childish action, but also an activity which is connected with abstract thinking processes. By abstract thinking we do not consider only thinking based on logical rules and concepts in the narrow sense, which young children are not able to achieve. Abstract thinking also refers to the cognitive process which helps to express reality at any symbolic level, including those levels of which children are capable. We can, for example, say that art is also a symbolic and abstract phenomenon, although it is not a product of conceptual logical thinking. We hypothesize that by facilitating symbolic play among children we may stimulate their abstract thinking development. This correlates with the idea of Vygotsky who thinks that fictional plan is necessary for the development of abstract thinking in science, for example (Vigotski, 1996), and symbolic play definitely operates at fictional level. Abstract thinking is also important for creativity development because both phenomena are based on multi-perspective approaches.

Play as Divergent Associative and Analogical Thinking

A child can transform concrete data about the world into its playful internal unique representations using free associative thinking (Mednick, 1963), which is by definition divergent. Fluency, flexibility, and the originality and elaboration of ideas define divergent thinking (Guilford, 1967), and analogies are the implicit mechanism of the associative flow. Divergent thinking means thinking in different directions starting from one point, but also appears in the form of an alternative simultaneous parallel thinking approach, connecting what previously was not connected or functioning on levels never seen together.

We know that the associative process often follows the principles of contrast, similarity (perceptual, functional...); contacts in time and space, a unique experiential or knowledge context. Each idea in the series is somehow connected with the previous one, or any other association that can comes to our mind. Even the first one in the flow comes from a pre-existing mental setting, which the individual may not even be aware of. However, the criteria for making analogies in the divergent process quickly change into new directions. To divergently associate means to create a new, unexpected and distant analogy using the entire recourses of existing ideas already stored in the mind (memory). If there are no fixed criteria (no limits, logical for example), the flow of ideas is open for creating various analogies. The list of possible characteristics of the ideas that may trigger the associative process is endless. In this situation each person can express its maximum potential for creative behavior, although the real creative ideas which go beyond the statistics of rarity are expected from those who have higher creative potential. More creative individuals have the ability for the intuitive creation of new meaningful insights beyond the simple trial and error associative approach, and the free associative process as play, for example, is just a good opportunity to display such potential.

In the case of pretense play the process of making analogies is activated so as to connect the perceptions of things, beings and events from the real environment with the internal world of a child's comprehension, symbolically recreating the perceptions of reality in the imagination. Since one thing symbolically represents another, there is an analogy between them. This means that symbolic play activities thinking in analogies and we can use play at preschool level and later to develop analogy thinking. So, what is symbolic play in the cognitive domain other than making believe instead of being, looking like instead of looking – making analogies in fiction? Only in the emotional domain, the child feels a profound identification with a make-believe scene in aplay situation and experiences it as real. The stronger the feeling that the play activity is real, the more authentic the play situation is, just as it is in good theatre (Stanislavski, 1982).

Play as an Explorative or Experimental Process

An analogy, however, may be more or less subjective/unique (based on personal experience) and more or less original/unique (distinct from reality, unexpected). The longer we play, associate, elaborate one idea, the greater the possibility that we will create original ideas is (Mednick, 1963). If children have the courage to explore they will express their own opinions, be unique and able to go beyond the limitations of reality in play. The childhood and play situation naturally have a potential for that. The function of symbolic play is to elaborate what is seen and explored. Originality in that process depends on how much the child is open to improvise, and how far he/she is able to go in changing perspectives and experimenting with various options, in spite of mental early age limitations. Some children like to change play in their own way (divergent types) more than others who prefer to follow rules and copy (convergent reproductive types). However, if a child believes that changing perspectives is acceptable and even recommended, there is a greater chance that it will happen. We hypothesize that if we motivate children to look from different perspectives and search for new alternatives, particularly in a symbolic play action where experimenting is crucial, they will end up as more flexible and capable of transformations and the production of unusual ideas. If we teach them to always try the other way, it will prolong their associative process in play, which is important for original production to come after the first automatic stereotyped convergent reactions. Children will be on the way to increasing their creative behavior by prolonging the associative divergent process in play while experimenting with multi-solutions constructed on analogies.

Finally, play does not always include physical activity. Play can also be used to encourage children to view different perspectives and gain personal insights into the world. It is interesting to note the responses you ask small children to express what they see, for example, in modern art. If they are relaxed and confident, and if our question takes place in a playful setting, children may provide answers which can be compared with sophisticated metaphorical adult expression.

Play as a creative process of making analogies

Play by definition is directly connected with the creative process, particularly symbolic imaginative play, since both acts are divergent, regulative, expressive, and autotelic (based on an intrinsic motivation). Therefore, play needs to

be seen as a form of creative practice in education (Mateic-Djuricic, according to Vygotsky, 1984). However, the divergent production of children in play may sometimes be more a result of the regular early age way of thinking based on trial and error, than actual proof of children's creative potential.

As far as we know from reviewing the literature, the established theories and well-known research, play seems connected to creative behavior. There is considerable evidence from creative adults about how play is connected with divergent thinking and creative outcomes. The evidence among children, however, still remains open for discussion, since the criteria for creative production are fluent and difficult to define for such an early age. Nevertheless, there are indications in research studies that children who are involved in symbolic play activities tend to think divergently and are more successful in open-ended creative tasks in different domains, for example creating stories (Smith, 1984, Dansky & Silverman, 1973).

What seems not elaborated enough in literature in the domain of research about creativity and play, is their connection with unstandardized analogies created in a free associative divergent process. Experimental studies which directly prove the connection between play practice and the production of analogies would be useful to investigate. Connecting imaginative/symbolic play with creative responses later on provides only an indirect indication of make-analogy practice.

Longitudinal Research of Play, Divergent Thinking and Children's Creative Behavior – Results from Serbia

At this point we are planning to find out how the play situation promotes creative analogies in an experimental study analyzing the thinking process - micro level, while our current project in the Institute for Educational Research is dealing with creativity, initiative and cooperative behavior among students and teachers including all segments of school - macro level. This project is based on our previous results from long term longitudinal research.

The goal of this study was to verify whether play and group research activities in class affect the development of children's creative behavior and cooperation. The research was conducted in Serbia, and followed up over a five-year period (Šefer, 2000, Šefer, 2005, Šefer, 2008, Šefer, 2012). The sample consisted of students in an experimental and controlled urban class (each class N=33). The research was repeated in an experimental rural class (N=35). The focus was on following the process in class by analysing time samples of the children's activities, but the pre-post evaluation of the children's production was also conducted in each class, every year, from the first to the fourth grade. The mixed-method approach was used for collecting qualitative (narratives) and quantitative data (behavior and production evaluation on scales). This approach was chosen because it was difficult and inappropriate to follow- up divergent creative thinking in class, such as symbolic and explorative play and research activity, using tests and other types of examinations based on measuring.

The results of this longitudinal study in primary classes are as follows. The children were more creative when they had an opportunity to be involved in play-like imaginative school activities, such as drama play and multimedia associative exercises. The objective of these activities was to open their minds to unreal and imaginative, unusual ideas. The student group research, as an extension of explorative play-like activity, affects developing various approaches to data collection, classification, and interpretation. The idea of changing the criteria for data classification and analyses was seen as playing with different options and developing flexibility of mind. The truth was considered as relative and open for discussion. The outcomes were children's creativity expressed in pre-post individual visual and language art production, and in the constructions of an imagined world made by various second hand materials.

Staying on the track of children's authentic curiosity, we have developed an atmosphere in class where the initiative behavior and staying on task beyond the school period, was natural evidence of children's intrinsic motivation and persistence. Nowadays, when we are facing the problem of the lack of student learning motivation in schools worldwide, it is crucial to stay with students' curiosity and the divergent associative process of idea production through play-like activities in class. It helps to develop their interest in school, which is one of the major benefits and even a precondition for dealing with creative potential, and in that scope, with their divergent/analogical thinking process.

Furthermore, many activities organized in small groups extend individual imaginative play and tremendously develop social skills of cooperation and the understanding of their own and others' ideas and emotions.

The interesting long term effects were discovered in narratives based on the observation of the student's behavior after the fourth grade, when the primary experimental program had been completed. The data were collected from the new teachers who were the student's instructors after the fourth grade. Although they were not innovative and taught in a classical way, they discovered that the students from the previously described study expressed their opinions more than others. These students fought for their way of thinking and behaving, provided a reasonable explanation for their choices which were more atypical than those of their schoolmates, and displayed independence, unstandardized ideas, and maturity in social and cultural judgment and in understanding different perspectives, searching for quality and humanity in life values. What we

did not expect was social and historical, developmental understanding of social and natural phenomena. This was the effect of learning about historical events in time perspective by focusing on „why" questions.

This discussion was intended to provide arguments and contributes to the definition of symbolic play as an abstract thinking action with creative characteristics, based on the mechanism of diverse analogical thinking which is an imaginative and symbolic thinking process.

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