

Psychological and Pedagogical Expertise of Board Games

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The article describes the role of board games in the cognitive and personal development of preschool and early school age children. The discussion questions about the genesis of board games and assigning them to a more general group of games – games with rules, are outlined. The specific characteristics of board games that distinguish them from other games are identified. A notion of board games' impact on the formation of metacognitive skills is proposed. The criteria for psychological expertise of board games are described and justified. The main and the additional criteria of psychological examination are outlined. The first group covers the following: the attractiveness of the game (a desire to play), the development sphere (which skills are formed in the game), the description of the main skill (its structure and sequence of operations), related skills and age that a game is designed for. Accessibility of the game material (determined by a number of conditions, consideration of which significantly affects the possibility of organizing a game activity by a child) and quality of the material are described as the additional criteria. The significance of the psychological and educational expertise of board games is discussed.

Keywords: play, board games, games with rules, psychological and pedagogical expertise, metacognitive skills, assessment criteria.

The Role of the Game in the Human Life

The role of the game in people's mental development has ever presented a real problem and

occupied one of the central places in psychological literature, the game being regarded as a peculiar form of sharing the experience which the society is able build in order to control children's

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development. The spectrum of items within the problem is really very wide, and many of them are heatedly discussed by the experts in the field, whereas some of other questions still remain neglected or disputable. The latter would include the analysis of table games on the subject of what their role in child's development actually is as well as how these games are connected with other games and activities of children.

The significance of the games in child's development has been repeatedly emphasized. The scientific discussion on the subject of what role the game plays in different periods of the human life is now in full swing. Alongside with the classical belief that games play the leading role in children's development during the whole preschool period, the influence of these activities on personal, cognitive, social and professional development at other stages of human lives is also under discussion now. School educational curricula as well as the whole system of professional training would more and more frequently turn to the game as one of the most effective form of sharing knowledge, skills, abilities and use for this purpose all kinds of business games, role playing, table and computer games. The spread of the games organized on the basis of fantasy books has become really wide. These games are played in the real space and in real time. While playing them a person would train different patterns of behavior, establishing contacts with other people, etc. Many people are involved into these games – children, teenagers, grown ups.

Interactive games played in virtual space are also becoming more and more popular. People would complete in becoming experts or champions in certain activities or train to establish relations with other people. The spread and role of various games in children's lives as well as in lives of adult people has become the topic of debate in many books as psychological, logical, etc. written by many famous scientists (Erikson, Piaget, Hasing, Zaporozhets, Leontiev, Schedrovitsky, Elconin, Davidov, Kravtsov, Kravtsova, etc.). Interactive virtual games where people compete in acquiring certain skills or train to establish certain relations are also quite popular. The spread and the role of various games in the lives of school children and grown up people have drawn the attention of many scientists speciali-

zing not only in the sphere of psychology but also philosophy, logics, etc. (Ericson, Peaget, Hasing, Zaporozhets, Schedrovitsky, Elconin, Davydov, Kravtsov, Kravtsova, etc.).

As for the Russian school of psychology the role of the game is considered to be the most significant one in the lives of children of preschool age by many famous experts (A. N. Leontiev, V. V. Davydov, D. B. Elkonin). By this they emphasize the principal role of the game in the process of transforming the child's personality and mentality. At present the thesis of a leading activity as of the explanatory principle for the stages of age development shifts is being argued by many psychologists. Thus E. E. Kravtsova advances the principle of understanding the age peculiarities through the prism of psychological "novelties". She supports her position by saying that the criteria of distinguishing leading activities (e.g. communication, role-playing, etc.) have not been elaborated yet. She doubts V. V. Davydov's statements that transition from one leading activity to another happens when every previous activity has been completely exhausted. E. E. Kravtsova believes that games playing activities can not only survive but also remain significant with junior school children, adolescents and grown up people as well. N. N. Veresov, in his turn, presents his own interpretation of D. B. Elkonin's views he advances a hypothesis that the notion of a leading activities can only be meaningful within the context of a certain set of activities which is formed at every concrete stage of human development. The change of the activity, therefore, is regarded as the result of a systematic reconstruction of activities. In this case the game can remain a leading activity not only with pre-school children but at other stages of personal development.

Different Kinds of Games as They Appear and the Role They Play in the Child's Development

Besides that role which the games play in people's lives, the topics of what kinds of games appear in different age periods and what roles they play in human development is also widely discussed in psychological literature. Thus Safer doubts Russian psychology's belief that the role-games usually appear as a result of manipulative and investigational activities of the child, as

well as do their further transformations into the games which are played according to a set of rules by junior-school students. By this time the situation has already gradually become implicit rather than imaginary. The natural result of the transformation mentioned above is that the leading role is now played by a certain rule (set of rules) which in several kinds of games tend to become explicit (we mostly mean table and active games). Saifer's view is that there exist two lines of games development and that these lines cross. One of the two lines is that of forming a well-developed role-game as the result of investigational activities of a small child. The results consist in the child's growing abilities both of abstract thinking and imagination. The other direction of the game development is that from manipulative activities towards game development, which includes all kinds of exercises, sport games and games based upon certain established rules. Saifer shows that the first line is not really transformed into the second one but has its own independent development. In the Russian school of Psychology this position is supported by G.G. Kravtsova and some other scientist. While discussing different kinds of games and their peculiarities ("role-games" vs. "rule-games") Saifer singles out existing differences in some characteristic features of the games. Thus, he believes that the "rule-games" including table games, do not presuppose any imaginary situation and, therefore, appear irrespectively of manipulative activities as well as "role-games" development. In this article we are not aiming at a detailed discussion of the relationships between different kinds of games because we are fully convinced that it is to become the subject of a further independent analysis and investigation. We would rather prefer to investigate the thesis that "rule-games" do not require the imaginary (fake, false) situation, which we do not believe to be quite correct.

The recent research has shown that a child of 2-3 is quite capable of observing certain elementary rules while playing some simple table games (e.g. to find a necessary image of an object or its part, etc). This is on the one hand. But on the other hand children of pre-school age are still in need of certain elements of a role play (e.g. pave the path for a rabbit who is to visit his friend hedgehog, etc) while playing some table games.

That is why table games for pre-school children quite often contain the above elements (including some images, pictures of animals, people, objects). In other words, the child's interest to the table game initially explained by the presence of a "role-game" component rather than by the necessity to observe certain rules or by the possibility of (getting a prize) the end of the game. This thesis is supported by the fact that a child tends to include some substituting elements into the game instead of the real objects of real life (pictures, images similar to the original objects in this or that way). This observation corresponds with J. Piaget's belief that the child of 2,5 has already had an ability to play symbolic games in which symbolic actions as well as toy-images (of animals, people, fairy-tales characters) are used.

Thus, a child from the earliest childhood has already had at his/her disposal quite different kinds of games – imaginative games, active games and table games, too. All of them are then being further developed into their higher forms.

The fact that the game influences the child's mental development is supported by almost all contemporary psychologists. But are there any differences in how various kinds of games influence the development? Many researches would notice the significance of the role-game for developing human imagination. This kind of game is believed to support the development of motivation, as well as formation of communicative models (patterns), and, lastly, the abstract thinking development. The "rule-games" (both table and active), in their turn, would mostly support human regulative skills development (control of emotions, behaviour), as well as concrete academic skills (the ability to count, etc.) and the ways of interacting with other people.

The role-game influence is, therefore, connected with the possibility to form concepts, images, etc. while playing it, whereas "rule-games" are related with regulative and social skills development as well as with those involved in concrete mental academic activities. A separate group is formed by the games aimed at developing children's skills and abilities to be oriented in the situation of novelty and uncertainty.

On the whole the game promotes and supports human abilities to fulfill certain tasks typical of every age which become more concrete and

exact and which are materialized at every stage of human development in the form of different kinds of games and toys. Each type of the game is supported by corresponding playing materials and toys.

Peculiarities of Table Games

Table games belong to a broader category of "rule-games". If psychological significance of these games is to be estimated in accordance with the "rule-game" norms, the most important peculiarity of these games should become the necessity to observe certain rules and follow certain instructions. Therefore, the central characteristic of table games is that of the ability of a player to follow the rules which lie in the basis of the games. This obviously excludes possibility of developing human imagination, creativity, investigating skills and self-sufficiency. The ability to observe certain rules requires producing quite concrete actions which supports the development of the child's abilities to develop concrete skills and regulating operations needed for playing the game. All instructions having been given, all roles having been set, the game's role of supporting initiative, imagination and self-sufficiency is restricted by the set frames of game's rules. These characteristic features determine the function of table games which make them different from the role-games where the material stimulates a child to produce independent actions, creative activities, development of the plot, etc.

The role of table games is usually considered to be not a very important one as compared with other kinds of games. As soon as table games are to be placed in the same group as "rule-games", their contents as well as the role they play in developmental processes become underestimated and limited. We believe that, therefore, the real significance of table games for establishing basic intellectual structures (meta-cognitive abilities) and for the whole mental development of a child still remains unclear. Thus, the developmental effect of meta-cognitive by oriental table games is hardly restricted by that of establishing regulations but is also spread over forming basic cognitive abilities as well.

"Rule-games" (including table games) may differ radically from the point of view of their contents and structures as well as those skills and

abilities which they help to develop. It's a well-known fact that dynamic games contain a series of rules which restrict the child's freedom of actions, self-dependence, creativity and imagination. This happens because they are aimed at developing motor activities and are closer in this respect to those table games which are aimed at developing some concrete academic skills. At the same time, however, it would be wrong if we neglected the fact that even in case of existing strict rules which are to be observed in "rule-games" these games still help to develop quite concrete skills which can be fairly useful for the work of imagination and creativity (e.g. the intellectual plan of actions). Besides, it is necessary to mention that games aimed at developing certain academic skills form a really small part in the whole variety of table games, most of which are based upon quite concrete rules regulating the succession of actions to be fulfilled and being at the same time not as important, as the very content of the game is. The latter usually contains a system of tasks which are to be solved against an exciting background based upon a certain collision. Games may include the tasks, which are aimed a developing space orientation, or logics, or regulating activities, or strategy developing abilities, etc.

Logical, space, symbolic and other skills and abilities form the content of meta-cognitive abilities necessary for solving any possible academic task of every possible academic subject. They, however, do not form the item to be included into the students' curriculum of pre-school institutions or even schools. This frequently becomes the cause of certain academic difficulties experienced by the children. Thus, Jakimanskaya, Kaplunovich, et al. have already tackled the problem of student's difficulties while solving the tasks based upon realizing once own well-developed space intellect. Many Russian and foreign researchers have already written their papers on the subject of difficulties which arise when children have to solve various logical tasks. This is mostly the reason why so many school students and graduates are so poor at solving mathematical tasks as well. Other researchers would point out the low level of symbolic type of thinking which hampers the students while working with schemes and scheme-containing devices.

The analysis of table games which are available both in Russia and abroad has shown that their major part is aiming at developing various meta-cognitive skills. It is important that developing these skills through playing games would really change children's attitude towards the very necessity of solving problems and, therefore, raise the motivation. Meta-cognitive skills development while playing table games is accomplished in an exciting form of reaching the final goal. And this is really important for a child who becomes proud of himself to have learnt something new and entertaining.

Alongside with developing meta-cognitive skills table games allow children to develop some concrete intellectual abilities as well (e.g. to count, to some up, to enrich the vocabulary, etc.), which, however can be trained while solving a lot of academic tasks and doing lots of exercises, too. On the contrary, meta-cognitive skills are mostly developed while playing table games. Thus the task of the game can be, for example, to pave an uninterrupted path in a labyrinth which leads to a hidden treasure ["Labyrinth-Junior", Ravensburg, Germany-Check Republic, age: 5–8, participants: 2–4]. Each child in the game is given a card. The card is to be used so that to shift a set of other cards which form a labyrinth. The player must do it in such a way as to be able to finally pave a path, leading to a treasure. The rules of the game do not presuppose a possibility of making just another attempt with the card. In case the playing child was not a success, he/she is to imagine a possible change in the structure of the labyrinth when he/she is going to continue paving the path. This game is obviously useful for developing children's abilities to visualize space structures as well as their possible transformations in the course of reconstructions. Thus, meta-cognitive skills form the basis for developing quite concrete abilities, including the academic ones.

Besides cognition, table games help in developing regulative and social skills because they are mostly played by the children in a group where they have to communicate (insist on following the instructions, defend once own position, etc.). Strict rules, situations of failure, loss – they all support developing the ability to control one's actions and emotions which is absolutely

necessary if one wants to continue playing. The above observations prove that table games play an absolutely unique role in developing children's skills of self-regulation.

Table games as well as other kinds of games are really attractive for children of different age groups, but differently for each of them. Pre-school and primary school children are mostly interested in the plot of the game (e.g. to save the three pigs from the wolf; to help the mice in finding cheese; etc.). As soon as competitive motivation has been developed as well as aiming at success has been formed, the most important goal for the players is just to win and, for this sake, to follow the instructions and observe the rules in a proper way. It is motivation that involves a person into the very process of playing games. If we share the view of several scientists who believe that the human will is nothing more but a derivative from motivation, we'll understand why a person is not tired of making efforts to develop new skills while playing the game. The fact is that the game can accelerate skills' development and lead to better results.

Criteria for Table Games Psychological and Pedagogical Expertise

It has become very important nowadays to be properly oriented in the really enormous variety of games, toys and playing materials for the sake of proper understanding of their roles for the child's development. To do this one can rely upon the results of psychological and pedagogical expertise of games and toys which determines their roles in cognitive and personal development of the child on different age levels as well as cultural experiences they bring to the child.

To elaborate and establish criteria for estimation has become in our case a really complicated psychological problem as far as it requires, on the one hand, the analysis of tasks typical of every concrete age of children's development and, on the other hand, of those properties of games and toys which help children to solve the corresponding tasks.

Psychological and pedagogical expertise of toys and games has its own peculiarities which are understood through the prism of cultural experiences which are acquired while playing games of different types and it is to be reflected

while elaborating basic criteria used in the expertise.

When we deal with the “role-games” and toys the main criterion here is to estimate how far adequately it is oriented for the role-play to be started, the skill to be developed and certain relationship to be established. E. O. Smirnova and E. A. Abdulaeva single out just another criterion, that of how far often the orienting is for setting different kinds of relations (with the dolls, for ex., you can play “parents-and-children”, friends, “bride-and-groom”; etc).

When we deal with games and toys aimed at developing inquisitive and investigating behaviour it is important to estimate how well the novelty and uncertainty of a situation is set with them, for the above type of behaviour is best developed in situations like these. A. N. Poddiaikov believes that it is important here to estimate how independent and self-sufficient a child could be while playing with these toys and these games. The examples of these games are “hide-and-peek”; “find an object”; “mafia”; etc.

Taking the above peculiarities of table games into consideration one can single out several criteria for their proper estimation. The most important one among them is that of how attractive the game (toy) seems to a child. Thus, if a certain game does not seem interesting and attractive to a child, it immediately turns to become an ordinary task which is to be solved, an exercise to be fulfilled and, therefore, loses the very status of the game. A table game can be of a child’s interest for a number of reasons, including the “plot” of the game (races; animals playing hide-and seek; etc.) and types of toys as well (cars, animal figures, fairy tales characters, etc.). Aesthetic aspects of playing material (colors, design, quality, etc.) can also make the game attractive for a child. The older a child grows, the more interest is shown to the very task of the game. At this stage the fact of the victory over other partners as well as the character of the prize can become important and, therefore, raise the lively interest to the game. It shows that the competitive motivation has already been there. The degree of interest can become either larger or smaller depending on how well is the level of complexity can be regulated – too complicated

as well as too simple tasks of the games can lead to a lower level of interest to it.

Table games are based upon some rules and instructions which are to be observed and followed while playing them. As the result, certain playing skills appear to be developed. This is what we call “a developmental effect of the game”. It seems to be really important, therefore, to analyze the activities which are to be accomplished while playing the game in order to understand what kinds of skills are really formed at the end.

The fact is that producers would usually supply the game with a descriptive explanation of a certain sphere (memory, cognition, etc.) which the game can develop, telling nothing, however, about what concrete skills are developed as the result of playing activities. If the skills are mentioned by producers our task is to see what is there in operational composition of a game which enables it to support the development. For example, the task of the game is to find the way out of the labyrinth. This activity is supposed to develop the child’s ability of forming a visual picture of a certain figure (form): one has to go step-by-step so that to find the way out and not be hampered by any obstacles. To do that one has to be able to predict possible obstacles and try to avoid them. If the game of this kind gives a child an opportunity to go step-by-step and make several attempts, the child would not need to develop the skill of predicting either steps or obstacles. Among the skills which are developed as the result of playing this game logical skills are necessarily to be mentioned. These include the abilities to single out an important characteristic feature, selecting objects in accordance with these characteristics, bringing objects together to form the groups, generalizing. Psychological analysis of games has shown that, in fact, there is always just one concrete operation (seldom – 2) out of the whole set which is really learnt while playing. It is important, therefore, to point out that very operation and tell the users that actual results of playing the game may differ from those mentioned by producers.

To reiterate: the most significant criterion for psychological analysis of table games is that of singling out the key skill (or a set of key abilities) which are really developed by the child while playing a certain game (following concrete

instructions and accomplishing correspondent activities). This is what we call “a developmental effect of table games”.

There exist, however, a series of secondary skills which are also developed by a player, besides the main skill (abilities). The development of secondary skills is not regarded to be the objective of the table game but can be necessary for reaching certain intermediate goals and for the main tasks of the game to be solved at the end. Thus, remembering several instructions (rules) at a time and following them while playing is a *conditio sine qua non* for playing the table game and, hence, for developing cognitive skills which are significant and necessary for the success to be achieved (including: cognitive activities, logical operations, etc.). It is interesting to mention that those skills which are regarded as secondary in just one type of the games can become the key ones in the games of some other types. There are, for example, games of the type “wondering-walking” where the task consists in the necessity to reach a certain point of destination by properly moving some items. That player who is the first to come to the final point becomes the winner. According to the rules, all players should move their items one after another in a strict succession and make the number of steps corresponding to the number of spots on the playing cube; pictures would show the player where to stop, where to turn, where to turn back, where to miss one’s turn.

Having singled out both the key and the secondary skills which are developed while playing the game, we can then determine that very **sphere of the development** which the game is actually aimed at. This is going to become just another criterion for the game’s estimation. Among the central spheres the following ones are to be mentioned – a cognitive one, a regulative one, a communicative one and a personal one, each of these being characterized by a separate set of constituents. Let’s dwell upon them in greater detail now.

A cognitive sphere includes a rather wide range of those skills which are the target of playing a certain table game. It includes such skills as *perception* (space orientation, background perception, singling out structural aspects of objects, logical operational thinking, strategic thinking, etc.); *speech* (monological and dialogical

speech acquisitions, abilities to use proper syntactic constructions and grammatical forms, etc.); *semiological and symbolic sphere* (abilities to understand symbols and signs which the games contain, to use them properly while organizing playing activities); *memory* (development of direct and indirect abilities to memorize).

A regulative sphere includes an ability to remember and make use of instructions; to plan the activities; to organize strategical activities; to foresee the results of one’s own activities as well as the activities of other players; to follow a certain succession of operations; to control one’s own emotions; to organize attention; etc.

A communicative sphere consist in developing abilities to understand positions of other players; to raise a team spirit; to sympathize; to establish relationships; to find a way out of conflicts; to set agreements, etc.

A personal sphere contains a cognitive motivation; aiming at achieving success; self-sufficiency, etc.

It should be noted that age of players who are to play a certain game can be referred to most significant criteria for carrying out the research aimed at estimating toys and games, understanding how well a certain game and its tasks are coordinated with the tasks of a certain stage of a child development, explaining the necessity of developing concrete skills and abilities of children of certain age (e.g. singling out some characteristics is to be developed at an early stage, ability to plan activities – at a preschool and primary school stage; etc.)

Alongside with main criteria of toys/games estimation (attractiveness; key skills; secondary skills; age of players) some other additional criteria can be singled out. They include those parameters of the game (toy) which make it safe, convenient, simple and can be, therefore, determined as **quality and availability** of playing material. Availability is provided by an adequate style and content of rules and instructions which the game includes (they are to be brief, clear, exact, correct); a number of rules, instructions, parts of a game; possibilities to change rules and parts regarding age development of players; adaptation of activities to be easy for a child of certain age group who have a certain degree of understanding sizes and forms, signs and symbols and whose motor activi-

ties also depend on their age group. The quality of playing material is provided by its safety for children of different age groups, the fact they can be not immediately damaged, etc.

The Significance of Psychological and Pedagogical Expertise of Board Games

The fact is that the games expertise gives psychologists and opportunity to adequately estimate which exactly skills and abilities the child can develop while playing and children of what age group (groups) can play the game. By this we help interested people (parents, teachers, psychologists) to properly organize children's development and correctly influence it.

The problem of quality of games control also seems to be a very important one.

Expertise can suggest certain models for a good game (toy) which becomes a starting point for adult people (parents, teachers, psychologists) to form a public view of what a good game (toy) should be, and, as a result, a stimulus for producers to improve their products in such a way as to satisfy the needs and meet the requirements of their customers.

To conclude: psychological and pedagogical expertise of games (toys) with a certain degree of promotion would be able to become a means of changing public views and shaping a collective demand in this field.

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