Game Preferences of Modern Preschoolers (Based on Survey among Parents)

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The article is devoted to the parents' representations of the play activity of their preschool age children. Particular attention is paid to the joint parent-child play in the structure of family leisure time, parental involvement in children's play, as well as activity of the adult as an organizer of the role-playing game. The reasons why parents do not participate in joint play with their child of preschool age are addressed separately. The parental representations of toys and games, preferred by their child are analyzed. This paper gives a special structural analysis of the preschool children preferences of different kinds of toys in order to clarify the age dynamics of substantial changes in play preferences among boys and girls, as well as to determine the effect of various socio-demographic parameters. This work continues a series of studies conducted by the Institute of Sociology of Education, Russian Academy of Education addressing the problems of preschool education. The article contains material collected among parents whose children attend kindergartens in Moscow.

Keywords: preschool education, joint parent-child play, toys, play preferences of preschool children.

In this very article we have made an attempt in a special way to look at the problem of children's play, to consider those features of play from the point of view of parents of preschool children.

The basis of this article is represented by the materials received during a sociological poll of 1936 parents, whose children visit Moscow kindergartens. During the analysis of these materials we

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will try to estimate influence of various demographic and socially-stratification factors on the answers of parents about play activity of preschool children.

Place of joint play of parents with their child in the structure of family leisure time

In order to find out, what place is occupied by joint play of parents with their child in general structure of family leisure time, a special question was asked to respondents, concerning the usual way of spending free time with their child at home. The general average data on preferences of various kinds of joint activity at leisure time by parents of children of preschool age is resulted in Table 1.

Apparently from the data resulted in the table, among various kinds of activity preference to joint play with the child at leisure time is given by almost a half of interrogated parents (49,1 %). And significant distinctions in answers of fathers and mothers are not revealed. At the same time it is indicative that the gender of a child makes significant impact on the opinions of parents concerning play with him. So, parents of boys mark joint play more often, than parents of girls (accordingly: 52,2 % and 44,5 %; p = .001). It is peculiar both for fathers, and for mothers (Fig. 1).

Parents' preferences of play activity in leisure structure also depend on the age of the child (Fig.2). Thus, parents of the senior preschool children (5-7 year old children) mark the given type of
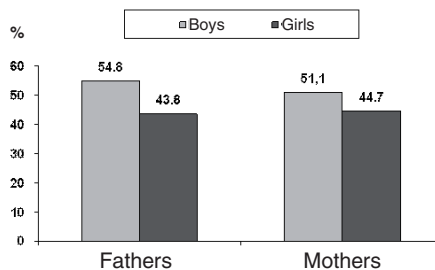

Fig. 1. Answers of fathers and mothers of boys and girls about joint play with their children (%)
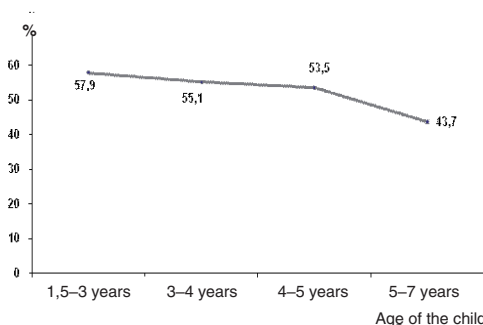

Fig. 2. Percentage of parents, preferring to spend a free time at home with the child in joint play in dependence of the age of the child (%)

Table 1

Joint activity of parents with their child at leisure time (%)

№ п/п	Types of joint activity	%
1	Reading of books	53,9
2	Joint play	49,1
3	Walks	44,5
4	Watching TV	25,5
5	Watching DVD, video	18,3
6	Involving the child into housework	16,8
7	Building, constructing	16,2
8	Modeling, drawing	15,2
9	Music listening, singing	10,2
10	Playing the computer	6,1
11	The child organizes his free time himself	9,3

activity much less often, than parents of younger children. It is important to underline that when the child reaches this age the general structure of joint leisure of parents with him also changes.

And finally, the material status of a family plays also an important role: needy parents mark joint play with their child essentially less often than prosperous (accordingly: 42,8 % and 51,6 %; p = .0004).

Involvement of parents in play with their child

In order to find out the degree of parental involvement in play activity with their child, a special question has been offered to the respondents: "Do you play together with your child?". It is necessary to notice that answers allow to find out not only the inclusiveness of parents in play with the child, but also to distinguish those reasons in connection with which parents don't take part in joint play, for example: child's preference of independent, separate play, inaptitude of parents to play with their child, lack of free time for joint play. Distribution of parents' answers to this question is given in Table 2.

The analysis of the received answers shows that the involvement of parents in joint play depends on the child's age (Fig. 3). Thus, with children of 4–5 years play 65,1 % of parents, whereas with children of 5–7 years – 59,1 % (p = .04). What is more parents of the senior preschool children (5–7 years) more often, than parents of 4–5 year-old children notice that their children prefer to play independently (accordingly: 25,1 % and 20,1 %, p = .04).

The figure shows that up to the senior preschool age there is gradual withdrawal of parents from joint play with their child and child's orientation to independent, separate play increases. In other words, at the stage of senior preschool age child's play activity becomes more self-dependent.
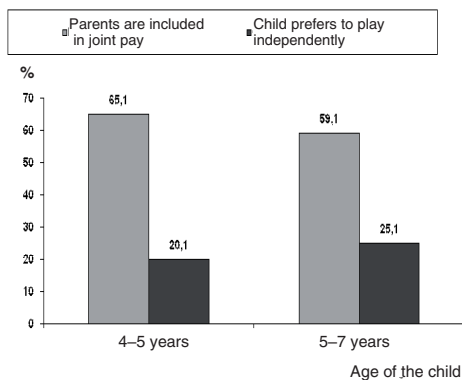

Fig. 3. Involvement of parents in joint play depending on the age of the child (%)

Also those distinctions of degree of parents' involvement in joint play depending on child's gender which we have already mentioned prove to be true. Thus, parents of girls mark their lack of free time for joint play more frequently than parents of boys (accordingly: 11,7 % and 9,0 %; p = .04). Gender of parents also has a significant impact on their involvement in the play with the child. So, mothers answer that they play with their child in 65,7 % of cases, and fathers – in 58,3 % (p = .001).

Also influence of socially-stratification factors is traced. So, parents with higher education mark their involvement in joint play with the child more often than parents with secondary education (accordingly: 66,5 % and 60,6 %; p = .02). In turn, parents with secondary education mark independence of their child in play more frequently than parents with higher education (accordingly: 25,7 % and 20,6 %; p = .01). It is remarkable that unmarried mothers, in comparison with married, more often mark their inability to play with the child (accordingly: 4,6 % and 1,7 %; p = .004).

Table 2

Distribution of answers of parents to the question on their involvement in joint play with the child (%)

№ п/п	Answer to the question	%
1	Yes, I play together with my child	63,7
2	No, my child prefers to play by himself	22,5
3	No, I am not able	3,0
4	Unfortunately, I don't have enough time	10,2

Activity of adult as an organizer
of a role-playing game

For the analysis of adult's activity as an organizer of a role-playing game for the child a question on whether parents invent plots for play or fairy tales for their child was asked (Table 3).

The received results show that parents invent plots for games to children till 5 years much more often, thus organizing their play activity. For example, for children of 4–5 years 31,9 % of parents think out fairy tales and plots for games, and for children of 5–7 years – only 22,9 % (p = .001). Age dynamics is resulted in Figure 4.
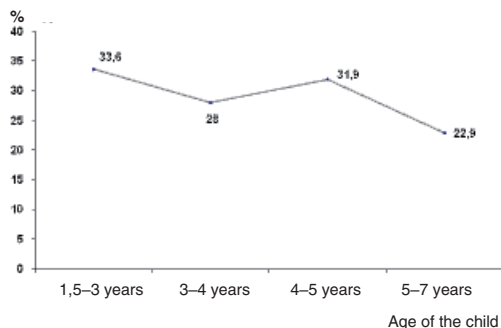
Fig. 4. Percentage of parents who regularly invent for their child fairy tales and plots for games, depending on the age of the child (%)

It once again confirms those results of the analysis of age features of play activity, described above. At the age of 5–7 years great changes in the structure of play activity of preschool child occur, and also the role of an adult in this activity changes. If earlier an adult played an important role for the organization of children's play, then since 5 years, the child becomes more independent in play activity. Let's add that the answer "I am not able to invent plots for games" more often give parents of children senior then 4 years (Fig. 5). Thus, if parents of children of 3–4 years mark inability to think out plots for games of their children in 1,7% of cases, then among parents of children of 4–5 years this answer is chosen by 5,4% of parents (p = .04).
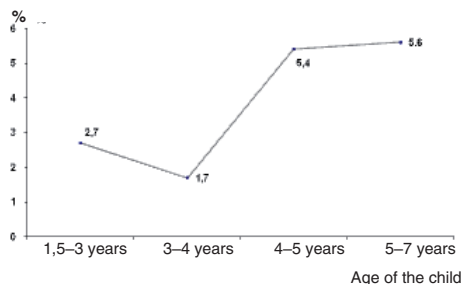
Fig. 5. Percentage of parents who have noted inability to invent fairy tales and plots for games for their child, depending on the age of the child (%)

Thus, at the age of 5–7 years the structure of organization of play activity changes that, first of all, is characterized by increasing self-dependence of the child, escalating independence from the adult in his play activity. The withdrawal of parents from joint play with their child is observed. Also we see that by the age of 4 years parents often show uncertainty in the ability to participate in play of the child and to become the organizer of a role-playing game. In other words, at a transition stage to a role-playing game, the adult often appears incapable of its organization.

Game preferences of children

During the poll parents marked what of the listed types of games their children usually prefer to play (Table 4).

Table 3

Distribution of answers of respondents to the question "Do you invent fairy tales for your child, interesting stories, plots for the game?"

№ п/п	Answer to the question	%
1	Yes, but it is rare enough	60,1
2	Yes, regularly	26,9
3	No	5,0
4	I am not able	4,5
5	Unfortunately, I don't have enough time	3,5

Table 4

Game preferences of preschool children (%)

Types of games	%	Parents	
Mobile games, sports games		of boys	of girls
Board games	52,3	53,8	51,6
Building, constructing	42,2	39,2	44,5
Games in "family"	41,7	50,8	31,2
Computer games, game console	24,7	9,7	39,9
Games in characters from books, films, cartoons	23,0	28,4	17,4
Military games	12,3	21,4	3,1
Games in different professions	7,3	4,6	**10,5**

From the data resulted in the table it is visible that game preferences differ depending on the gender of a child. So, boys much more often, than girls prefer to play computer games (accordingly: 28,4 % and 17,4 %; p = .0001), military games (accordingly: 21,4 % and 3,1 %; p = .0001) and also to build and construct (accordingly: 50,8 % and 31,2 %; p = .0001). Girls more often, than boys prefer board games (accordingly: 44,5 % and 39,2 %; p = .01), games in "family" (accordingly: 39,9 % and 9,7 %; p = .0001) and in different professions (accordingly: 10,5 % and 4,6 %; p = .0001).

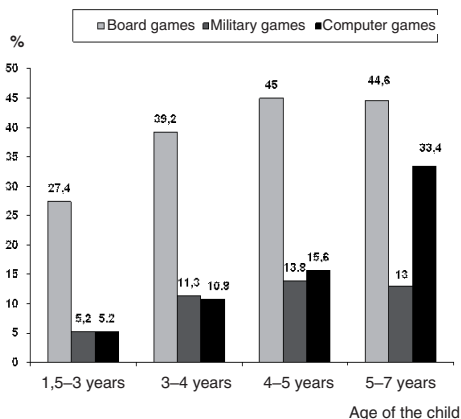Also age distinctions in game preferences of children are observed (Fig. 6 and 7).

Fig. 6. Growth of popularity of different types of games depending on the age of the child (%)
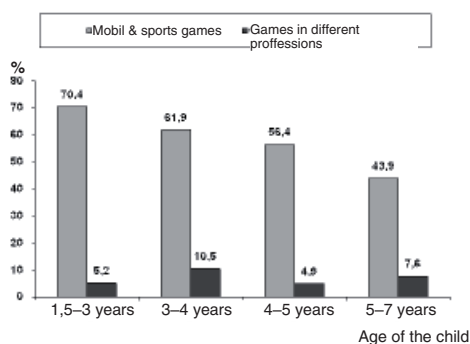
Fig. 7. Falling of popularity of different types of games depending on the age of the child (%)

From the results presented in Figure 6 is clear that different types of games are preferable during the different age periods. So, children of 1,5–3 years play board games much more rare, than older children (27,4 % at 1,5–3 years and 39,2 % at 3–4 years; p = .01). War games are also much less often preferred by children of 1,5–3 years in comparison with children of 3–4 years (accordingly: 5,2 % and 11,3 %; p = .04). Among the parents of children of 1,5 – 3 years computer games are marked only in 5,2 % of cases whereas among parents of children of 3–4 years their quantity already reaches 10,8 % (p = .04). Further with growing of the child parents' mention of computer games gradually increases.

From Figure 7 it is visible that the preference of sports games decreases with the years (children of 4-5 years – 56,4 %, children of 5–7 years – 43,9 %; p = .0001). Games in different profes-

sions are more often preferred by children of 3–4 years in comparison with children of 4–5 years and children till 3 years (accordingly: 10,5 %, 4,9 % and 5,2 %; p = .01).

Representations of parents about game preferences of their children depend on demographic and socially-stratification factors. So, fathers more often, than mothers, mark among the game preferences of their children games in characters of books, films, cartoons (accordingly: 16,1 % and 12,4 %; p = .02). Mothers more often, than fathers point preference of their child of games in "family" (accordingly: 27,0 % and 18,8 %; p = .0003) (Fig. 8).
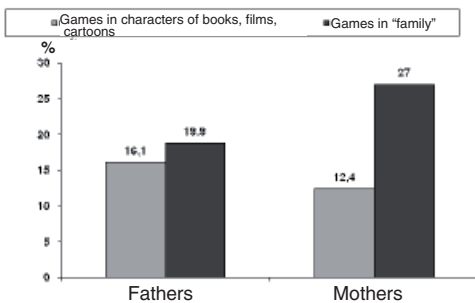

Fig. 8. Representations of fathers and mothers about game preferences of their child (%)

We should pay attention to the fact that parents with higher education mark games of their children in characters of books, films and cartoon films more often than parents with secondary education (accordingly: 17,1 % and 8,3 %; p = .0001). Parents with secondary education mark games in "family" more often than parents with higher education (accordingly: 28,5 % and 23,4 %; p = .007).

Income level in a family also influences parents' representation of game preferences of their child. So, computer games are less often marked by parents from needy families (18,8 %) in comparison with prosperous parents (24,6 %; p = .006). The similar parity concerns such type of game as building and constructing (37,1 % in needy families and 44,1 % in prosperous; p = .006). Games in different professions are more often marked by parents from needy families, compared with the more prosperous (accordingly: 10,1 % and 6,4 %, p = .003).

Dependence of game preferences of children from family structure is also observed. Table 5 shows significant distinctions in preferences of different types of games by children from complete and incomplete families (answers of married and unmarried mothers were considered).

These results show that children from incomplete families, according to their mothers, prefer sports games, while children from complete families prefer board games, constructing and computer games.

Preference of different types of toys

In the research, parents of preschool children were asked: "What is your child's favorite toy?". Obtained answers were grouped into 12 categories:
- Animals.
- Traditional dolls.
- Modern dolls (Barbie, Baby Born, Baby Annabelle).
- Traditional characters of children's subculture (Winnie the Pooh, Piglet, Pinocchio, Carlson, etc.).
- Modern characters of children's subculture (Spider-Man, Batman, Ninja Turtles, robots, etc.).
- Military toys (toy soldiers, tanks, guns, etc.).
- Transport toys (cars, motorcycles, etc.).
- Games with rules (dominoes, bingo, puzzles, etc.).

Table 5

Dependence of game preferences of children from family structure (%)

Types of games	Mothers		p =
	Married	Unmarried	
Mobile games, sports games	50,5	60,8	,003
Board games	44,2	42,6	,02
Building, constructing	43,7	33,6	,003
Computer games, game console	23,8	17,8	,03

• Materials for productive game (building kits, Lego, blocks, etc.).

• Sport toys (ball, hockey, soccer, etc.).

• Didactic toys.

• Not toys (game console, GameBoy, PSP, computer, bicycle, etc.).

General average data on preferences of different types of toys of preschool children are shown in Table 6.

The obtained data shows a significant difference in preferred types of toys for boys and girls. So, boys more often, than girls prefer such types of toys as transport toys (accordingly: 43,3 % and 6,0 %; p = .0001), materials for productive game (accordingly: 15,0 % and 8,0 %; p = .0001), modern characters of children's subculture (accordingly: 7,2 % and 2,1 %; p = .0001), and also military toys (accordingly: 6,6 % and 0,5 %; p = .0001). Girls more often, than boys prefer such types of toys as animals (accordingly: 41,5 % and 20,2 %; p = .0001), traditional dolls (accordingly: 34,8 % and 1,6 %; p = .0001), modern dolls (accordingly: 14,8 % and 0 %; p = .0001), and also traditional characters of children's subculture (accordingly: 4,9 % and 1,3 %; p = .0002).

It is important to pay attention to the age changes. Figure 9 presents those types of toys which preference increases with the age of the child.

Thus, children of 4–5 years are more likely than younger children prefer modern dolls (accordingly:
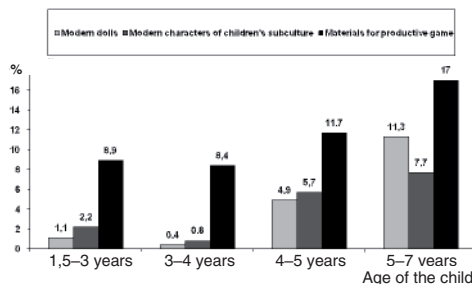
Fig. 9. Increased preferences of various types of toys with the age of the child (%).

4,9 % and 0,4 %, p = .002); among the parents of children of 5–7 years the percentage of those who point to a doll as a favorite toy for the child grows up to 17 % (p = .003). Modern characters of children's subculture are more often preferred by children of 4-5 years than children of 3–4 years (accordingly: 5,7 % and 0,8 %, p = .002). Children of 5–7 years are more likely than children of 4–5 years, prefer for their play materials for productive games (accordingly: 17,0 % and 11,7 %, p = .04).

The Figure 10 shows the decrease of child's preferences of several types of toys with the years.

So, children of 4–5 years are much more rare, than children of 3–4 years play traditional dolls (accordingly: 12,0 % and 24,9 %; p = .0001). Children of nursery group is much more likely than older children prefer to play traditional characters

Table 6

Types of toys preferred by preschool children (%)

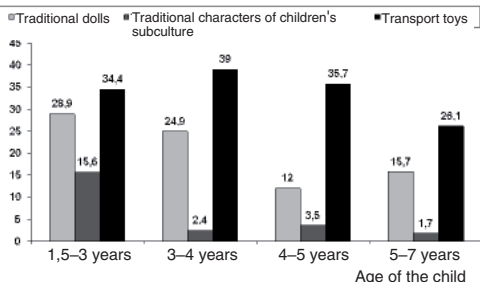| №	Types of toys	%
1	Transport toys	31,1
2	Animals	30,5
3	Traditional dolls	17,5
4	Materials for productive game	13,6
5	Modern dolls	7,0
6	Modern characters of children's subculture	5,7
7	Military toys	4,6
8	Not toys	3,2
9	Traditional characters of children's subculture	3,1
10	Sport toys	2,2
11	Games with rules	1,4
12	Didactic toys	0,5

Fig. 10. Reduction of preferences of various types of toys with the age of the child (%)

of children's subculture (accordingly: 15,6 % and 2,4 %, p = .0001). Transport toys are often preferred by children of 4–5 years than 5–7 year-old children (accordingly: 35,7 % and 26,1 %, p = .003).

Structural analysis of the age preferences of various types of toys

In order to clarify the age dynamics of those changes in game preference of boys and girls, as well as to analyze the impact of socio-demographic parameters, we carried out a special factor analysis. For this purpose, a data matrix which fixes the particular preferences of toys for boys and girls of different age groups in terms of their fathers and mothers (for data analysis, we also differentiate the position of married and unmarried mothers) was formed. Thus, factor analysis was subjected to a matrix dimension of 12x12: where strings – different types of toys preferred by children, and columns – view of fathers and mothers (married and unmarried) of the preferred types of toys of their children, taking into account age and gender of children. Factorization of this matrix by principal component analysis followed by rotation on the criterion "Varimax" Kaiser allowed to construct a simplified three-dimensional factor model, which describes 75,5 % of the total variance. As a result, were divided three bipolar factors.

The first bipolar factor F1 (44,2 %) has the following structure:

Transport toys	0,850508
Military toys	0,818520
Materials for productive game	0,724199
Animals	-0,923507
Traditional dolls	-0,868932
Modern dolls	-0,768501

The structure of this factor is quite interesting. As we see, on the positive pole of this factor are grouped together such kinds of toys as transport (cars, motorcycles, etc.), military toys (toy soldiers, special equipment) and various types of building kits. Thus, we can say that at the positive pole toys which serve as materials, means for children's play were grouped. Playing with these types of toys children are not attached to certain roles, but basically manipulate, manage them as the means of play. At the negative pole of this factor animals (soft toys) and dolls were grouped. It should be noted that, in contrast to the positive pole of this factor, here we see together such types of toys that encourage the adoption of roles in children. Playing with animals and dolls, children learn a role position.

The second bipolar factor F2 (18,5 %) – "games with rules – sport toys" has the following structure:

Games with rules	0,796055
Not toys	0,650056
Sport toys	-0,825868

In the structure of this factor on the positive pole are games with rules and not toys. As we have noted, under the concept "not toys" we mean first of all computer games and video game consoles, which also can be called games with rules, because these games also mean abidance by rules. Thus, we believe that the positive pole captures the assimilation of game rules. At the negative pole grouped sport toys, meaning in the first place, the manipulation of certain objects (e.g. ball). Also we should note that the use of these toys can mean a moment of competition (the agonist desire to defeat an opponent).

The third bipolar factor F3 (12,7 %) "didactic toys – traditional characters of children's subculture" has the following structure:

Didactic toys	0,595263
Modern characters of children's subculture	0,509810
Traditional characters of children's subculture	-0,872255

This factor is of particular interest for our study. Thus, we see that at the positive pole of the factor didactic toys combine with modern characters of children's subculture. At the negative pole are traditional characters of children's subculture. This result seems very important to us. The fact is that the theoretical didactics of educational games and toys emphasizes the importance of using the characters of traditional children's subculture. It is believed that through such traditional models children are better able to perceive and understand the proposed problems and, therefore, successfully cope with them. But our results, in contrast, show that educational games and toys are not based on traditional characters of children's subculture, and are based on the use of modern heroes of children's subculture. In our view, a possible reason is that the developers of modern didactic toys actively use the modern context of children's subcultures: fashion heroes and characters provide, from their point of view, the attractiveness of educational games and toys.

Of special interest to us is the placement of the views of parents (married mothers of boys and girls of all ages, as well as unmarried mothers and fathers of boys and girls) in the space allocated to factors. Let's pay attention to the features of placing of different groups of parents on the axes of factors F1 and F2 (Fig. 11).

Figure 11 shows that all parents of girls grouped at the negative pole of factor F1, and parents of boys – on its positive pole. Thus, we can conclude that parents of girls fix that their child prefers to play with dolls and animals, learning a role position. Parents of boys fix that their child prefers toys-means (transport and military toys and materials for productive game). If we turn our attention to the placing of opinions of parents of preschool children on the axis of factor F2, we may note the characteristic age pattern in the changing of toy preferences of children. Thus, we see that in general with age there is a transition from manipulation (sport games) to games with rules. The older the child is, the more his play activity is focused on conformance to certain rules and norms.

Thus, the figure shows the results of the peculiarity of age dynamics of play activity of boys and girls. Pay attention to quadrants I and IV. As we see the boy's parents (fathers of boys and married mother of boys of 4–5 and 5–7 years) fix the orientation of their child to the toys-means and abidance by rules in play. Parents of girls (married mother of girls of 4–5 and 5–7 years, unmarried mothers and fathers of girls) along with abidance by rules in play of their child fix an orientation on the development of the role-playing position. Such differences, in our opinion, determine the gender-specific development of role-playing game: for girls through the development of the role relationships, and for boys through the development of gaming facilities (using toys-means).

Let's consider a particular gaming preferences of preschool children placing married mothers of boys and girls of all ages, unmarried mothers and fathers of boys and girls on the axes F1 and F3 (Figure 12).
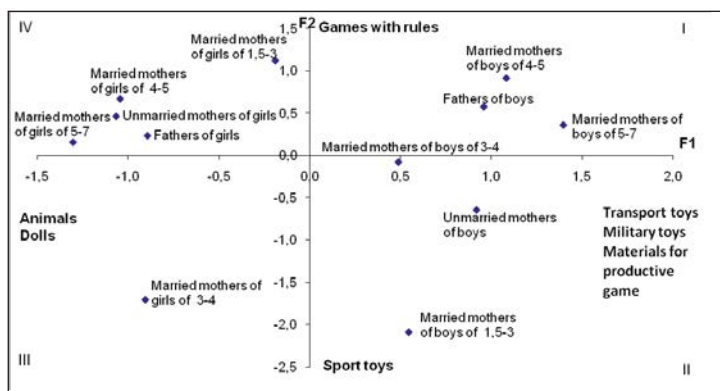

Fig. 11. Placing of married mothers of boys and girls of all ages, unmarried mothers and fathers of boys and girls on the axes of factors F1 and F2.
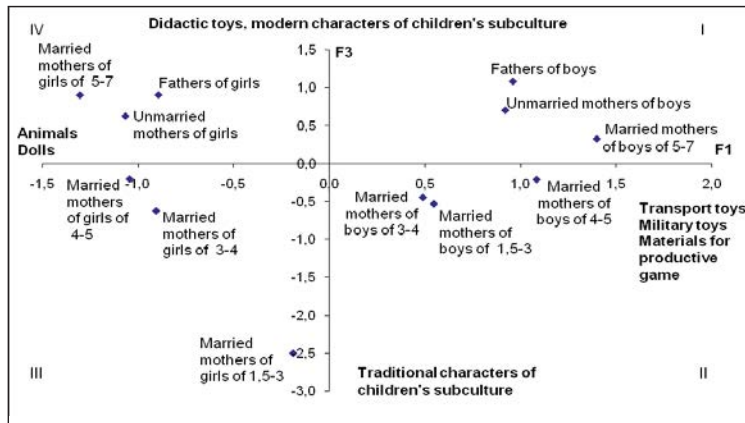
Fig. 12. Placing of married mothers of boys and girls of all ages, unmarried mothers and fathers of boys and girls on the axes of factors F1 and F3

Figure 12 shows that the certain age dynamics of children toy preferences exists. If young children prefer games with traditional characters of children's subculture, then in the age of 5–7 years an abrupt shift in preference for didactic games occurs. These changes in the selection of toys mark the stage of preparation for school. At the same time, gender differences – focus on the role for girls and orientation to the facility for boys – is also stored in didactic games.

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On the basis of the conducted research the following conclusions are made:

In the structure of family leisure time play activity of parents with their child takes a leading place. Parents' involvement in joint play with the child depends on the child's age. In the age of 5–7 years the structure of play is much changing that is primarily characterized by its greater au-

tonomy, increasing independence from the adult in play. Adults' suspension from the joint play with a child is observed.

The study highlighted a number of age and gender characteristics in the game preference of preschool children. Boys significantly more likely than girls prefer such types of games: computer games, building and construction, military games. Girls are significantly more likely than boys prefer board games, playing in "family" and in various professions. With age in preschoolers is growing interest for board games, computer games and military games and reduces interest for outdoor games and games in various professions.

Didactic games in the structure of children's play are related with modern characters of children's subculture. This testifies to the consideration of social factors and cultural context by the developers of contemporary didactic games.

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