

## USE OF MOBILE GAMES IN THE FORMATION AND STRENGTHENING OF INTERPERSONAL AND INTERGROUP RELATIONS IN A GROUP OF SCHOOLCHILDREN

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**Abstract.** Motion and sports games remain an important factor in the social interaction of people since the early stages of anthropogenesis. For young people they are used as an institution in which mutual assistance is brought up, social consciousness and behavior are formed. Folk motion games which are closely connected with the traditions and culture of the people are also of educational importance. In the elements of games historical rituals, military and labor motion actions are reflected, and in their rules - national foundations, ideas of honor, courage and bravery. The article describes the characteristics of motion games as a pedagogical means of educating various moral, strong-willed and ethical features of the personality as a factor forming a sense of collectivism and skills of collective interactions among young people. The results of the use of motion games in the educational process and in extra-curricular activities for forming and strengthening interpersonal and intergroup relations in collectives of the 5<sup>th</sup> and 7<sup>th</sup> grades are presented. The article shows the evaluation of the influence of game interactions according to such characteristics of relations in the team as in-touch capability, cohesion, mutual support, organization and etc.

**Keywords:** collective of schoolchildren, mobile game, interpersonal relations, group cohesion, leading role of the teacher.

### 1 Introduction

The formation of positive interpersonal relationships in youth groups, whether a class or sports team or a student group, does not happen by itself, but becomes possible as a result of purposeful work of teachers realized through the organization of various forms of constructive joint activities of its participants. This can be preparation for a creative event, generally useful work, joint work, the implementation of socially significant instructions that contribute to the group cohesion, form the unity of goals and values, raise the level of mutual trust.

In junior and middle school age, one of the effective means is mobile group games. With competent guidance by adults, as the founder of the pedagogical science J.A. Komensky notes, the game can be used to "develop health or rest for the mind, or as a preparation for life activity, or for all this at the same time" (Komensky, 1939).

Each game has its own story and organization. Through the assimilation of and compliance with the rules of a certain type of game activity, the child is socialized by accepting and obeying the norms and laws of existence in a modern society. In addition, (this is already the other side of socialization), during playing activity, the child adapts to performing social functions: imitating adults, he learns to perform certain roles – a captain, a lead player, a judge, a game organizer, etc., which develops leadership and organizational skills in the participants, contributes to the development of social communication skills (Ermolaev,2002; Shmakov,1994; Brown Kathryn,1981; Don Morris,1999).

It should also be borne in mind that there are two characteristic and important types of relationships between people in mobile games: competitive struggle (confrontation with the rival) and coherence of actions between team members, which is associated, on the one hand, with the possibility of conflict situations and the need for their settlement, as well as the requirement to respect the opponent; and on the other hand, with the ability to interact with partners, assess their capabilities, understand and forgive mistakes, adequately respond to failure, and limit their own desires.

The game lays the foundation for the child's future character – he learns to overcome pain, fatigue, fear, and remain calm under emergency circumstances in the interests of his team. Mobile games with elements of competition form volitional qualities of the person such as stamina, vigor, perseverance, conscious discipline, which play an important role in the formation of positive interpersonal relations in the team. Thus, the game can be viewed as a system that helps to create a team with the right relationship and a moral-willed basis (Frost, 1979; Taysaev, 2000).

Unfortunately, in recent years, mobile games have been fewer used in children's life: in recent years, we no longer see a noisy running group of kids, group games with a rope or a ball in the yards, and children fulfill their need for the game with computer games. Today, much has been written and discussed about the resulting problems in different communities of teachers, psychologists and sociologists (Khalilova, 2007). However, the urgency of restoring the popularity of mobile games, their widespread introduction into leisure activities, in the educational and upbringing process, remains acute. There is also a need to search for new strategies and approaches to the practical realization of the potential of mobile games in order to form and develop interpersonal and intergroup relations in children's groups.

### 2 Methods

The research used the following scientific methods: the analysis of scientific and methodological literature, the pedagogical experiment, the evaluation of group cohesion of the class by Sishor-Khanin's method, the assessment of the emotional state and psychological atmosphere in the classroom by Fidler-Khanin's method, the socio-psychological self-assessment of the group as a collective method of psychological group self-assessment, and statistical methods for processing experimental data.

1. The assessment of group cohesion of the class (the integration degree of the group) according to Sishor-Khanin's method presupposes a survey of schoolchildren on 7 issues related to the relationship in the classroom. The respondent must choose from the proposed answers the one that most fully characterizes his opinion. The points scored for answers are summed up for each of the respondents. And the arithmetic average of these sums for the class characterizes the level of group cohesion in it: 21-25 points - high, 12-20 points - medium, 7-11 points - low.

2. To study the psychological atmosphere in the class, Fidler-Khanin's method was used. It implies that the survey participant should assess the degree of severity of the following signs characterizing the relationship in the group:

Table1. Degree Of Severity Of The Fol-Lowing Signs Characterizing The Relationship In The Group

No.	Feature	Points	Feature
1	Friendliness	7 6 5 4 3 2 1	Hostility
2	Agreement	7 6 5 4 3 2 1	Disagreement
3	Satisfaction	7 6 5 4 3 2 1	Dissatisfaction
4	Enthusiasm	7 6 5 4 3 2 1	Indifference

5	Productivity	7 6 5 4 3 2 1	Non-productivity
6	Warm-heartedness	7 6 5 4 3 2 1	Coldness
7	Cooperation	7 6 5 4 3 2 1	Lack of cooperation
8	Mutual support	7 6 5 4 3 2 1	Malice
9	Entertainment	7 6 5 4 3 2 1	Boredom
10	Success	7 6 5 4 3 2 1	Failure

The closer the respondent ticks a figure to the left or to the right (opposite in meaning) features given in the table, the more pronounced the given feature in the studied class. Then the average of the sums of points collected by each of the respondents is calculated. The results are interpreted as follows:

- 50-70 points - the psychological atmosphere in the class is good, and all the characteristics of empathic communication are positive.
- 30-50 points - the psychological atmosphere in the class is

neutral (atmosphere of indifference).

- 10-30 points - the psychological atmosphere in the class is negative, with prevailing hostility, disagreement, dissatisfaction with relationships, indifference, and lack of cooperation.

3. The study of the emotional state of the class was carried out with the help of a questionnaire survey of schoolchildren, suggesting the assessment of its certain features on a 7-point scale. Here is an example of one of their 14 questions:

Table2. An Example The Study Of The Emotional State Of The Class

	+3	+2	+1	0	-1	-2	-3	
The group has inviting atmosphere in relationships and mutual understanding								The group constantly shows pessimistic mood, apathy to everything, easily arising conflicts

4. The method of socio-psychological group self-assessment involves interviewing students using a large number of judgments (an example of one of 75 such judgments: "The members of your class rejoice at each other's successes"). For each of the proposed judgments, the degree of development of the class as a group must be assessed on a five-point scale. Next, we assess 7 types of relations in the group on 7 scales: responsibility, collectivism, solidarity, rapport, openness, organization, and awareness.

**3 Results**

The experimental part of our study was devoted to the introduction into the educational process (to physical education classes) and to extra-curriculum activities (extra-curricular collective walks, hikes, "Health days", mass competitions on vacations, etc.) of a large number mobile games with command-team interaction of participants with the purpose of revealing the degree of influence of this factor on the formation and strengthening of interpersonal and intergroup relations in the children's team. The experiment that lasted 5 months (September 2016-January 2017) included fifth-grade students (the period of formation of a new class group after the primary school) and seventh-grade students (the period when the interpersonal relations in the adolescent environment need to be adjusted).

For the comparative analysis of the experimental results, two groups of classes were formed – two classes of the 5th and 7th grades were assigned to the control group, where the educational and upbringing school programs were implemented according to the usual educational system; and three of the 5-th and 7-th grades – to the experimental group.

Before the beginning of the experiment, the homogeneity of the groups according to the initial indices, characterizing the class as a group, was checked. To do this, diagnostic interviews of schoolchildren were conducted: in 5th grades the methods of Sishor-Khanin and Fidler-Khanin were used, and in 7th grades – methods that provide questions of more complex nature and number, but considered more verified – this is what social-psychological self-assessment of the group and assessment of the emotional state of the group is. There were no significant differences ( $p > 0.05$ ) between groups, which was confirmed by statistical data processing using the non-parametric Wilcoxon test for unbound samples.

We would like to note that it is possible to characterize every

school class as a highly conventional group. Being a stable association of people with a permanent composition and interpersonal communication, the class as a whole has no common goals - the activity of each member (learning) is strictly individual. However, with the skilful leadership of adults, the creation of such common goals opens the possibility for the school class to become a group. Conventionally, this process is divided into three stages.

Discipline and order in the class at the first of them are supported by the efforts of teachers, and in our case we also add observance of the rules in mobile games, controlled respectively by the judges and the game organizers. The second stage begins when an organizational group (the core is the leader and its supporters) is formed in the class, actively supporting the requirements of teachers and joining the management of class activities, including game ones. At the final stage, the demands on the individual are already presented by the established group.

In our study, the problems solved at each of the stages of the formation of the class group served as the basis for the integration of a unique set of mobile games, which content, goals, rules, motor actions and methodological features of the conduct directly corresponded to the tasks of each particular stage.

The games were selected not only subject to the tasks to be solved, but also taking into account the age interests of schoolchildren; they were carried out with the implementation of the main methodological principles of their use - accessibility (compliance with the level of physical fitness of the players), gradualness (in increasing the level of physical exertion), and consistency (in the complication of motor actions and game situations - from simple to complex). The content of the games provided for elements of cooperation and competition between players, groups of players or teams, which made it possible to plan and purposefully implement upbringing and adjustment in dealing with certain strong-willed and moral qualities of a person (Arnold, 1975; Foster, 1992). Games that require the coordination of collective interactions, alternated in a certain sequence with games that create favorable prerequisites for the manifestation of individuality and independence in action.

The composition of the teams was constantly changing in different games in order to develop uniform and stable positive interpersonal relationships among class members. Mobile games conducted during the lessons and extra-curricular activities

require direct leadership of the teachers (Kalina,2007) - they grouped the players in commands, changed the rules of the games (depending on the conditions of their conduct and the number of participants), assigned roles taking into account the individual characteristics of the players with the obligatory reasoning an explanation of why this particular student is assigned the role of a leader or referee in this game.

Considering the results of widespread use of mobile games, one should not forget about their importance as a means of active recreation, physical development and recovery (Strakovskaia,1994; Opie,1969; Kalina,2016).

#### 4 Conclusion

By the end of the experiment, there were no significant ( $p < 0.05$ ) changes – either positive or negative – in the indices characterizing the class as a group in the 7th grades of the control group; the changes observed in the 5th grades were insignificant: the level of group cohesion increased from 8.9 to 10.1 points and remained low, while the psychological atmosphere in the class remained neutral, having increased only from 33.0 to 33.9 points, which is confirmed by statistical verification of the data.

The experimental group, on the contrary, (for the period from September 2016 to January 2017) showed a statistically significant improvement in the indices characterizing interpersonal relations in the classes and the overall assessment of the classes as a group. We shall consider the analysis of the changes that occurred in the 5th and 7th grades in more details.

A comparative analysis of the results of the study showed that (with equal initial indicators with the control group) the widespread use of mobile games in the teaching and educational process in the 5th grades of the experimental group affected group cohesion – its score increased from 8.9 to 13.8 points, which corresponds to the medium level (only for 5 months of the experiment); the psychological atmosphere in the class improved in general (from 32.8 to 46.2 points), and its individual characteristics such as mutual support, friendliness, success, satisfaction, and cooperation increased by 31% on average.

The overall assessment of the class as a group in the 7th grades changed from low (1.8 points) to medium (2.7 points); some of its aspects such as the attitude of class members to teamwork, to common goals and objectives (i.e. responsibility) increased by 46%; the desire to jointly solve all questions, preserving and strengthening the class as a whole (collectivism) - by 21%; unity of opinions of members of the class in important issues (cohesion) - by 34%; mutual sociability, personal emotional-direct relations between members of the class (rapport) - by 41%; the attitude of the members of the class to its newcomers or members of other classes (openness) - by 29%; ability to quickly create and change the organizational structure of business relationships necessary for effective group work (organization) - by 32%; and accessibility of the most important information about the state of affairs or about each student to all members of the class (awareness) - by 30%.

These results are confirmed by another similar technique - the emotional state of the class is assessed as favorable (there is mutual understanding in the relationship; schoolchildren like to be together, participate in joint activities, support each other in failures).

#### 5 Discussion

Thus, the conducted practical-oriented research allowed us to develop, experimentally test and confirm the effectiveness of using mobile games in the educational process with team-group interaction of participants in terms of improving interpersonal and intergroup relations in groups of the 5th and 7th grades. The experiment also showed high interest of modern school students in events with significant motor activity – their proper

organization ensured attendance of various activities involving outdoor games amounting to an average of 93% of the total number of students, which enabled teachers to help them both realize their need for play and get away from computer games through physical activity.

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