

Developing students' social and communication skills through gaming sports

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Abstract

Objective of the study is to identify the educational potential of team sports in developing the social and communication skills of university students and to experimentally demonstrate the effectiveness of their use in the university educational process.

Methods and structure of the study. The study was conducted over two semesters at the university's sports facilities and involved 68 first-, second- and third-year students. The students were divided into an experimental and a control group of 34 students each, who were identical in terms of physical fitness and lack of regular experience in team sports, ensuring their initial homogeneity. The experimental group followed a specially designed programme based on the systematic use of five-a-side football, volleyball and basketball, with the structure of the sessions aimed at developing skills in teamwork, rapid information exchange and coordination of actions in dynamic game situations. Sessions took place twice a week and combined training and game-based activities.

Results and conclusions. Analysis of the data revealed the dynamics of the development of students' social and communication skills under the influence of systematic participation in team sports. The results of the study showed that the systematic use of five-a-side football, volleyball and basketball has a marked positive effect on the development of students' social and communication skills. During the experiment, participants in the experimental group demonstrated significant improvements across all key indicators, including communicative tolerance, the level of group inclusion and the effectiveness of team interaction.

Keywords: *team sports, students, teamwork, interpersonal communication, education, soft skills.*

Introduction. The modern higher education system requires students to possess well-developed social and communication skills – the ability to work in a team, interact within a group, make decisions under pressure, and take responsibility for the outcome. However, research shows that many students experience difficulties in interpersonal communication, which manifests itself in reduced communicative activity, a lack of constructive behavioural models, and difficulties in collaborative work. This makes the search for effective pedagogical tools that enable the development of these qualities in natural and emotionally rich environments particularly relevant [2, 4, 5].

The most effective means of developing social and communication skills are team sports – five-a-side football, football, volleyball and basketball. Team

sports place high demands on participants: the need to analyse situations quickly, coordinate actions, take partners' interests into account, take responsibility and maintain emotional stability [1, 3, 6, 7]. Such a dynamic environment for interaction creates natural conditions for the development of communication and social skills, which distinguishes sports games from formal training sessions.

In global educational practice, team sports have long been used to develop soft skills; however, in Russian higher education, such approaches have been implemented to a limited extent, which underscores the significance of this research. Given the growing demands on graduates – the ability to work in a team, communicate and make decisions under conditions of uncertainty – team sports can be regarded as a promising tool for developing socially



significant qualities in students. Their potential requires further scientific analysis, experimental testing and wider implementation in university physical education practice.

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Methods and structure of the study. The study was conducted over two semesters at the university's sports facilities and involved 68 first- to third-year students, divided into an experimental group and a control group of 34 students each. The groups were identical in terms of physical fitness and lack of regular experience in team sports, which ensured their initial homogeneity. The experimental group followed a specially designed programme based on the systematic use of five-a-side football, volleyball and basketball, with the structure of the sessions aimed at developing skills in teamwork, rapid information exchange and coordination of actions in dynamic game situations. Sessions took place twice a week and combined training and game-based activities.

The control group followed a traditional physical education programme, comprising general physical training without a specific focus on games. To assess changes in social and communication skills, questionnaires, pedagogical observation, sociometry, expert assessment and self-assessment methods were used. Measurements were taken at the begin-

ning and end of the experiment, which made it possible to identify changes both within and between the groups, and thereby determine the influence of team sports on the development of students' communication skills.

Results of the study and discussion. Analysis of the data obtained revealed the development of students' social and communication skills under the influence of regular participation in team sports. At the initial stage, the experimental and control groups demonstrated comparable indicators, as confirmed by similar values for the overall level of social and communication skills (58.3 ± 1.4 and 57.6 ± 1.5 points, respectively, $p=0.68$), communicative tolerance (112.5 ± 2.8 and 114.1 ± 2.6 points, $p=0.54$) and the group inclusion index (0.48 ± 0.03 and 0.46 ± 0.03 , $p=0.61$). This indicates the initial homogeneity of the sample and creates appropriate conditions for analysing the impact of the game programme (Table 1).

Upon completion of the educational experiment, a marked increase in the overall score for social and communication skills was observed in the experimental group. Its value increased from 58.3 ± 1.4 to 72.5 ± 1.3 points ($p < 0.05$), reflecting a qualitative improvement in the students' readiness to engage in interaction, take responsibility when solving group tasks, and demonstrate initiative and flexibility in communication. The control group also demonstrated a slight improvement from 57.6 ± 1.5 to 61.4 ± 1.4 points ($p < 0.05$); however, the extent of the changes was significantly less pronounced. The final inter-

Table 1. Trends in students' social and communication indicators

Indicator	Group	Before the experiment	After the experiment	p, after the experiment
		M ± m		
Comprehensive indicator of social and communication skills, points	EG	$58,3 \pm 1,4$	$72,5 \pm 1,3$	< 0,05
	p	< 0,05		
	CG	$57,6 \pm 1,5$	$61,4 \pm 1,4$	
	p	< 0,05		
Communicative tolerance, points	EG	$112,5 \pm 2,8$	$97,3 \pm 2,6$	< 0,05
	p	< 0,05		
	CG	$114,1 \pm 2,6$	$109,8 \pm 2,7$	
	p	≥ 0,05		
Sociometric index of group inclusion, standard units	EG	$0,48 \pm 0,03$	$0,63 \pm 0,03$	< 0,05
	p	< 0,05		
	CG	$0,46 \pm 0,03$	$0,50 \pm 0,04$	
	p	≥ 0,05		
Expert assessment of teamwork, points	EG	$2,9 \pm 0,1$	$4,1 \pm 0,1$	< 0,05
	p	< 0,05		
	CG	$2,8 \pm 0,1$	$3,2 \pm 0,1$	
	p	≥ 0,05		



group comparison confirms the advantage of the game-based methodology. Thus, the difference in the level of skill development reached statistical significance ($p < 0.05$), indicating a direct influence of sports games on the intensity of the development of social and communicative qualities.

An important indicator was the dynamics of communicative tolerance. In the experimental group, a decrease in the indicator was observed from 112.5 ± 2.8 to 97.3 ± 2.6 points ($p < 0.05$), which signifies an increase in tolerance towards partners' individual characteristics, a reduction in the number of conflictual reactions, and a strengthening of the desire for compromise. In the control group, the changes were trend-like (from 114.1 ± 2.6 to 109.8 ± 2.7 points), but did not reach statistical significance ($p \geq 0.05$). An intergroup comparison of the final scores revealed a noticeable advantage for the experimental participants ($p < 0.05$). In essence, this is explained by the nature of team sports, which regularly place students in situations of micro-conflicts and necessitate rapid coordination of actions. The format of team interaction in five-a-side football, volleyball and basketball encourages the habit of quickly defusing tension, supporting teammates and maintaining a business-like tone in communication.

Positive changes also affected the sociometric structure of the student groups. The group inclusion index among participants in the experimental programme rose from 0.48 ± 0.03 to 0.63 ± 0.03 ($p < 0.05$), indicating an increase in their social status within the group and an expansion of their interpersonal relationships. In the control group, the improvement was minimal and statistically insignificant (0.46 ± 0.03 to 0.50 ± 0.04 ; $p \geq 0.05$). The final differences between the groups also reached the level of significance ($p < 0.05$). This result confirms that game-based activities not only develop individual communication skills but also alter the very system of intra-group relations, making it more integrated and emotionally healthy.

Expert assessment of team interaction reinforced the overall picture; thus, the teachers observing the process noted a significant increase in coordination, mutual support and the effectiveness of role distribution among students in the experimental group. The average score increased from 2.9 ± 0.1 to 4.1 ± 0.1 points ($p < 0.05$), whereas in the control group it rose only from 2.8 ± 0.1 to 3.2 ± 0.1 points ($p \geq 0.05$). The significant superiority of the final scores in the ex-

perimental group ($p < 0.05$) demonstrates that systematic team-based game activities foster sustainable models of productive interaction, in which each group member takes on an active role and participates in the joint resolution of game-related and organisational tasks.

Overall, the study's results confirm the high effectiveness of team sports as a means of developing social and communication skills among students. The observed dynamics indicate that mini-football, volleyball and basketball, with their high level of emotional intensity and requirement for constant interaction, create natural conditions for the development of communication skills, joint decision-making, mutual responsibility, developed empathy and the ability to work under pressure. At the same time, the influence of team sports extends beyond physical training, becoming part of students' overall personal development and contributing to their professional and social adaptation.

Conclusions. The results of the study showed that the systematic use of five-a-side football, volleyball and basketball has a marked positive effect on the development of students' social and communication skills. During the experiment, participants in the experimental group demonstrated significant improvements across all key indicators, including communicative tolerance, levels of group inclusion and the effectiveness of team interaction. The results of the experiment suggest that team sports can be considered an effective tool for developing soft skills within a university educational environment. Their inclusion in the teaching process helps to strengthen interpersonal relationships, enhance the cohesion of student groups and create conditions for more successful social and professional adaptation among students.

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