

Football as a part of the Process of Development of Competence of Personal Growth in Students by means of Physical Education

Leonid A. Zelenin*, Evgeniy V. Kudryashov, Anatoliy A. Opletin, Valeriy D. Panachev,
Yulia A. Korepanova and Marat T. Fazleev

Perm National Research Polytechnic University, 614990, Perm, Russian Federation; zelenindoz48@mail.ru,
kudryashov-e-v@mail.ru, opletin.@yandex.ru, panachev@pstu, yu.korepanova@ro.ru, m.fazleev@ro.ru

Abstract

Background/Objectives: Modern open educational space of the high school implies the system of the educational processes offering conditions for independent development of personal education environments. **Methods/Statistical Analysis:** The article considers approaches to the phenomenon and essence of the shaping of competencies of personal development with the help of football. Use of football in scholastic process of school for students' physical education and shaping of athletic competency and competencies of personal development. Theoretical analysis of scientific and scholastic-methodical literature on football. Study and journaling of self-sentiment and personal development, organization of students' health cards. Testing a level of development of physical qualities. Experiment. **Findings:** Studies and testing confirmed close liaison between development, speed-power qualities, technical evaluation of health, shaping of athletic competencies and personal development of students practicing football. Presented observations may be used to control the level of development of certain physical and technical qualities in student practicing football, to adjust the process of training changing its direction for formation of physical, sports and self-development competences. We observe positive increase of physical standards of students taking part in experimental program. Students practicing football, are less prone to catarrhal diseases (ARD, ARVI, influenza) and have higher motivation for physical activity. Regular practice of football teaches students discipline, self-confidence, partnership, team spirit; promotes normalization of fitness, shaping of athletic competency and competency of individual development. **Applications/Improvements:** It is one of ways of physical shaping and development of physical qualities in personality within the process students' self-realisation in their professions of choice.

Keywords: Football, Personality, Physical Condition, Self-Development, Technical Qualities of Students Practicing Football

1. Introduction

1.1 Thematic Justification

Modern trends of development of Russian education condition shift of priorities in education process: Importance of internal determinants for personal and professional development increase and an individual with his need for self-realisation, self-development and realisation of his

potential becomes the biggest value¹⁻³⁷. New objectives of education suggest establishment of a new education environment promoting maximum personal fulfilment under a process of shaping of personal development competences^{3,4}. Football athletics class represents one of possible education environments for personal development within our research.

Regular football trainings teach students discipline, self-confidence, partnership, team spirit. Football fosters

*Author for correspondence

awareness of physical qualities (strength, speed, stamina, springiness, etc.), as well as mental qualities (confidence, persistence, resolution, ability to make correct decisions fast). This is one of components of shaping of self-development competences. Complex use of football training provides positive influence upon dynamic pattern of physical, psychic and mental performance of students. Football increases possibilities of aesthetic influence upon students, developing drive for physical beauty, creativity and aesthetically conditioned behaviour in students. At present the beauty of football lies in not only the skill demonstration, technical mastery of individual players and effective close of play. The process of game, its composition, team spirit and interaction of players also create a feeling of aesthetic sensitivity. Game and training produce various complex effects upon the body, help to develop basic physical qualities (speed, agility, strength, stamina), increase functional opportunities and shape different motor skills. Year-round football classes under different weather and environment conditions promote physical conditioning, increase resistance to diseases and boost body's adaptive capabilities. At this the classes also help students get important habits as permanent compliance with mundane, work, study and sport schedule. This promotes establishment of healthy lifestyle and creative longevity. Competitive nature, high emotionality and independence of activity make football an effective type of active recreation. Systematic training promotes physical development and health. Students acquire regular build and high figures of physical fitness: Stature above average, corresponding weight, vital capacity and high chest amplitude, lifting force, well developed musculature (especially in lower limbs, development of rotator cuff and upper limbs falls back in comparison, which should always be under attention). As football is a universal means of physical education, some exercises from its set are in some ways used within a complex program of physical education classes. Knowledge of principles of training pattern and methods of technical skills learning allows to evaluate the scheme of training session, to correctly choose methods and tools for sessions with focus on technique^{2,6}. To teach the technique of football, coaches apply individual-group method of training, which is more efficient than team training. Obviously, the organisation of training process should be adapted, but efficacy of certain exercises and whole technique-oriented session increases⁷. Several researches revealed favourable prerequisite for advancement of technical game skills

in students. At once, there are no researches aimed at revealing of efficacy of specially designed methods using football as one of the basic tool of professional shaping.

1.2 Objectives

Using football at classes of physical education in high school to shape competence of self-development in students.

1.3 Research Tasks

- To analyse and generalise data on physical and functional condition of students of first-fourth years.
- To develop a method of usage of game and competition methods for physical education on the basis of football within a process of shaping of competence of self-development in students.
- To normalise mental state of students with the help of football.

2. Materials and Methods

The research methods are analysis of methodical literature on football. - Study and journaling self-sentiment and self-development, health card. Testing - Experiment.

2.1 Object of Research

High school student education process.

2.2 Subject of Research

Football practice by students within health and fitness process of high school.

Training games and football competitions help students improve the whole complex of background needed at physical education classes, as well as technical, tactical, mental, physical and cognitive abilities¹. To achieve efficient learning of game technique, special equipment should be widely used: Reflect walls, stands for ground moves, movable aims, suspended balls, movable woodwork.

3. Results and Discussion

At the research stage we have made an evaluation of the level of technical qualities we are interested in. For this purpose we used tests: Dribbling, precision kicks, distance kicks, getting around stands, distance ball throws. To define the level of technical background we used muscular

endurance test allowing to estimate precision, production and surety of technique. Within the research we have tested the level of technical background of students (Table 1).

Test program included evaluation of speed technique of ball possession and special coordination. Pedagogic tests allowed us to evaluate level of technical background and reveal gaps in the structure of sport mastery of students. Difficulty of tests corresponded to 6 points according to P.F. Yezhov's scale of evaluation of technical difficulty of training exercise. After each test we settled the result corresponding to maximum points, basing on the expert opinion. Errors and inaccuracies led to lost points. Flawless performance guaranteed maximum points. In Tests No. 1, 2, 3, 6, 7, 8, 9, 10 quantity of points was calculated by the formula $x = \frac{n}{m} y$, where x is points a students got, n is maximum points, m is a result

corresponding to maximum of points, y is the achieved quantity of points.

In Tests No. 4 and 5 points were calculated by formula $x = n - h - k$, where:

x – points received,

n – maximum points,

h – penalty seconds,

k – errors during test performance.

Test analysis revealed that level of students' technical mastery is around 70%. Majority of students had troubles with first touch, with long passes, with trapping. These exercises showed level of technical skills. One-touch juggling revealed the level of coordination of action. Long passes in a set square with resistance showed precision

Table 1. Students' technical background tests

Formula $x = \frac{n}{m} y$	Test 1. One-touch juggling in pairs, distance 4-5 meters						Test 2. Overhead passes in pairs, distance 25-30 m., trapping of a ball without contact with the ground					
Quantity	60	50	40	30	20	10	20	16	12	8	4	2
Points	6	5	4	3	2	1	6	4,8	3,6	2,4	1,2	0,6
Formula $x = \frac{n}{m} y$	Test 3. Handling of a ball into a set square from the distance of 30-40 m with resistance						Test 6. Ball trapping at high speed with a following shot on target					
Quantity	20	16	12	8	4	2	10	8	6	4	2	1
Points	6	4,8	3,6	2,4	1,2	0,6	6	4,8	3,6	2,4	1,2	0,6
Formula $x = n - h - k$	Test 4. Groundmoves around 10 stands with limited number of touches, 10 th touch is a shot on target						Test 5. Shuttle run with a ball, 6*9 m., with a touch to a cone					
Seconds+errors	7	8	9	10	11	12	17	18	19	20	21	22
Points	6	5	4	3	2	1	6	5	4	3	2	1
Formula $x = \frac{n}{m} y$	Test 7. 30 m. run with dribbling (sec.)						Test 8. Distance kick: a total distance for both legs (m.)					
Time, quantity	4,6	4,7	5,0	5,1	5,3	5,6	82	78	72	66	63	51
Points	6	5	4	3	2	1	6	5	4	3	2	1
Formula $x = \frac{n}{m} y$	Test 9. Kicks from penalty area (number of goals)						Test 10. Distance shots of a ball (m.)					
Quantity	8	7	6	5	4	2	25	22	20	18	17	15
Points	6	5	4	3	2	1	6	5	4	3	2	1

of players' actions under time pressure and resistance. Shuttle run with a ball revealed motion coordination, agility, swiftness and physical fitness. Distance shots revealed strength and accuracy of throws, which is quite important in football.

High level of technical skills, inherent to footballers of a certain role, presupposes high level of development of special functional structures, which are directly formed

by teaching and training process. During training sessions we intentionally worked upon elimination of errors in groups, using individual and group methods. It resulted into significant improvement of valuable aspect of game from technical and physical point of view. Performance in such exercise as shuttle run, 30-meter run, 1-kilometer run, 3-kilometer run, sit-ups, rope skipping, ground moves and kicks, dribbling and throwing, juggling, long

Table 2. Results of test of physical fitness and functional conditions in midgets: Beginning in 2011, intermediate in 2013, check in 2014

Test		Experimental group				Control group				Significance value -a		
		X ⁻	δ	m	V(%)	X ⁻	δ	m	V(%)	Edp (Эдп)	Kdp (Кдп)	E-K (Э-К)
1.30 m, run, sec	Beg. exp.	5.48	0.6	0.05	11.0	5.47	0.5	0.04	9.14			>0.05
	Interm.	4.47	0.6	0.05	11.1	5.41	0.5	0.04	9.14			>0.5
	Control	5.42	0.7	0.06	12.9	5.45	0.8	0.06	14.7	>0.05	>0.05	>0.05
2.1000 m, run, sec	Beg. exp.	4.18	0.57	0.05	13.6	4.17	0.61	0.05	14.6			>0.05
	Interm.	4.16	0.59	0.05	15.8	4.18	0.61	0.05	14.6	>0.05	>0.05	>0.05
	Control	4.20	0.62	0.05	14.8	4.24	0.65	0.05	15.0	>0.05	>0.05	<0.05
3.3000m, gallop walk, mins	Beg. exp.	19.3	2.2	0.17	11.4	19.37	2.8	0.23	15.0			>0.05
	Interm.	19.29	2.4	0.19	11.6	19.39	2.6	0.21	14.0	>0.05	>0.05	>0.05
	Control	19.15	2.8	0.22	14.6	19.72	2.1	0.17	10.7	>0.05	>0.05	<0.05
4.Standing long jump. m	Beg. exp.	2.15	0.32	0.03	14.9	2.13	0.32	0.03	15.0			>0.05
	Interm.	2.14	0.31	0.03	14.8	2.13	0.32	0.03	15.0			>0.05
	Control	2.12	0.3	0.02	14.2	2.08	0.31	0.02	14.9	>0.05	>0.05	<0.05
5.Rope skipping, times in 20 sec	Beg. exp.	38.83	5.2	0.41	13.4	38.56	5.5	0.44	14.5			>0.05
	Interm.	38.85	5.3	0.40	13.0	38.0	5.4	0.41	14.3			>0.05
	Control	38.98	2.6	0.21	6.7	37.61	2.6	0.21	6.9	>0.05	>0.05	<0.05
6.Flexibility. Angle body, cm	Beg. exp.	10.43	1.6	0.13	15.0	10.38	1.58	0.13	15.0			>0.05
	Interm.	10.45	1.5	0.12	14.0	10.35	1.56	0.11	13.0			>0.05
	Control	11.1	0.95	0.08	8.6	10.12	0.82	0.07	8.1	>0.05	>0.05	<0.05
7.Sit-ups, times in 1 min	Beg. exp.	41.54	4.3	0.34	10.4	41.59	5.35	0.76	12.9			>0.05
	Interm.	41.56	4.5	0.37	10.6	41	5.37	0.74	13.1			>0.05
	Control	42.47	6.3	0.5	14.8	40.93	6.2	0.49	15.2	>0.05	>0.05	<0.05
8.Arm-pumping exercise, times	Beg. exp.	33.59	4.2	0.33	12.5	33.67	4.8	0.38	14.3			>0.05
	Interm.	33.7	4.0	0.31	12.3	33.69	4.6	0.36	14.1			>0.05
	Control	35.5	2.65	0.21	7.5	33.79	3.15	0.25	9.3	>0.05	>0.05	<0.05
9.Ruffier-Dickson Test, c.u.	Beg. exp.	9.34	1.32	0.1	14.1	9.30	1.42	0.11	15.3			>0.05
	Interm.	9.32	1.30	0.1	13.9	3.32	1.40	0.9	15.1			>0.05
	Control	8.94	0.88	0.07	9.8	9.91	0.67	0.05	6.8	>0.05	>0.05	<0.05

passes, trapping and handling improved by more than 1.5 times, which increases value of strong individual players and assumes their advantageous use in technical and tactical aspect of inter academic football competitions. Within teaching of technical skills we evaluate efficiency of mastery of technical game skills and their realisation within competitions³.

Within an academic year of 2011-2014 we conducted an experiment to evaluate the level of physical fitness and functional condition of midgets practicing football. Experimental group – 15 students, control group – 16 students (undergoing traditional program of physical education). Significant differences in control group of students before and after the experiment are observed in one of 9 tests: Angle body (Test No. 6). Thus, independent efficiency of increase in performance within existing (common) teaching techniques is 11%. Significant differences in control group of students versus experimental group after the experiment are observed in 6 out of 9 tests, namely: 3-kilometre gallop walk, rope skipping, angle body, sit-ups; arm-pumping exercises, Ruffier-Dickson Test (Tests No. 3, 5-9). Thus, efficiency of increase and improvement in performance within new techniques is 67%. The biggest increase of performance in physical fitness in midgets of experimental group was observed in flexibility tests: Angle body (8.6%), arm-pumping exercises (7.5%) and Ruffier-Dickson Test (9.8%). In control group only one index increased: angle body (8.1%) (Table 2).

4. Conclusions

In the research period of 2011-2014 we have observed positive increase of physical conditions in both experimental and control groups, though in experimental one the increase in more pronounced. Students visiting football club are less prone to catarrhal diseases. Regular football training teaches students discipline, self-confidence, team spirit, partnership, promote normalisation of psychic conditions and shaping of self-development competence.

5. References

1. Golomazov SV, Chirva BG. Football: General attack technique. Moscow: Physical Culture and Sport; 2010.
2. Kudryashov EV. Modern approaches to the students knowledge assessment system on the basis of use of modules and rating teaching technique (case study Volleyball Tactics).

- The 2nd International Applied Research Conference of young Scientists. Current Issues of Theory and Methods of Physical Culture, Sport and Tourism; Minsk, Belorussia. 2006. p. 443–5.
3. Mangeley IV, Potapov VN. Subjects and environment of physical education and sport. Moscow: TPFKiS; 2010.
4. Opletin AA. Formation of the competence of self-development of an individual in students by means of physical culture. Theory and Practice of Physical Culture. 2013; 10(1):13–7.
5. Opletin AA. Potential of physical culture as one of the leading incentives of individual development. Theory and Practice of Physical Culture. 2009; 5(1):25–31.
6. Petukhov AV. Formation of principles of individual technical and tactical football mastery. 2015. Available from: http://www.e-reading.club/bookreader.php/44608/Petuhov_-_Formirovanie_osnov_individual'nogo_tehniko-takticheskogo_masterstva_yunyh_futbolistov.html
7. Seluyanov VN, Shestakov MP, Dias S, Ferreira M. Issues of technical training in football. Moscow: TVT Division; 2009.
8. Vilenskiy MY. Physical education and healthy lifestyle in the student's life. Moscow: Gardariki; 2007.
9. Panachev VD. Physical culture and sports as means of social and pedagogic development of an individual. Monitoring of Health in the Practical Establishment of a Safe and Healthy Educational Environment. Russia-wide Applied Research Conference; Volgograd, Russian Federation. 2011. p. 28–32.
10. Panachev VD. To the evaluation of healthy lifestyle of college youth. Physical Culture and Sport within the Structure of Health Protecting System of High School. Conference to the 80th anniversary of the Stavropol State University; Stavropol, Russian Federation. 2011. p. 67–71.
11. Panachev VD. Analysis of physical culture and healthy lifestyle. International Journal of Experimental Education. 2013; 4(2):40–5.
12. Wulfson BL. The strategy of development of education in the western countries into the 21st century. Educational strategy in the West: Into the XXI century. Moscow: Publishing House of the University of the Russian Educational Academy; 1999. p. 207–14.
13. Mukhin O. Knowledge representation by formal model language and its automatic interpretation by computer modeling environment stratum-2000. Building the Knowledge Economy: Issues, Applications, Case Studies, IOS Press; 2003. p. 1259–64.
14. Bondin VI. School health teacher in higher education. Theory and Practice of Physical Culture. 2004; 10(1):15–8.
15. Zhitnitskaya EA, Berkowitz AV. Education priority attention to health as a basis for promoting the formation of healthy lifestyle of students. PH: Irkutsk; 1991.
16. Aghajanian NA. Health of Students. Moscow: Izd Rund; 1997.

17. Iseman RI. Russia's health crisis: Medical, social, psychological and pedagogical principles of its formation. Novosibirsk: Publishing House NGPU; 1997.
18. Kazin TM, Kasatkin NE. Scientific-methodological and organizational approaches to the establishment of the regional education and health program. *Valeology*. 2004; 4(1):15–9.
19. Aleshina LI. Building motivation for healthy lifestyle in the future teachers within the process of professional shaping. [Doctoral Thesis]. Volgograd; 1998.
20. Bezrykhih NA. Formation of setting students on a healthy lifestyle in the educational process of professional schools. [Doctoral Thesis]. Saratov; 2006.
21. Vasilyeva O. Psychology of human health: Standards of presentation of the students. Moscow: Academia; 2001.
22. Malyarenko TN. Valeological aspects of higher education. *Valeology*. 1996; 2(1):20–4.
23. Apanasenko GL. Valeology: First results and future prospects. *The Theory and Practice of Physical Culture*. 2001; 6(2):13–7.
24. Valiulina OA. Healthy lifestyle of students in the studying process by means of adaptive physical education. [Doctoral Thesis]. Ufa; 2006.
25. Ovchinnikov SA. Personal physical culture as a leading factor in the formation of a healthy lifestyle of a student. [Doctoral Thesis]. N. Novgorod; 2006.
26. Salov VY. Theoretical and methodological foundations of a healthy lifestyle of students by means of physical education. [Doctoral Thesis]. St. Petersburg; 2001.
27. Punzet NW. Das Kuatsu-Buch. Kuatsu-Akademie: Brauenburg; 2001.
28. Obodynski K, Cynarski WJ. Reflections on methodological and epistemological problems in sport sciences. *Research Yearbook. Studies in the Theory of Physical Education and Sport*. 2003; 9(1):37–43.
29. Krutsevich TY. Management of physical fitness of adolescents within a system of physical education. Kyiv: National University of Physical Education and Sport of Ukraine; 2000.
30. Pristinskiy VN, Pristinskaya TN. Humanistic value of physical culture and sport as a facility of the shaping of moral and aesthetic culture of the person. Kharkiv: Kharkiv State Academy of Design and Arts; 2008.
31. Hapacheva SM. Program on the development of communicative competence in younger students through game activity. *Austrian Journal of Humanities and Social Sciences*. 2014; 9(10):134–7.
32. Kubashicheva LN. Seniors resistance to stress as one of tools for development of mental health. *Austrian Journal of Humanities and Social Sciences*. 2014; 9(10):171–3.
33. Marchuk MV. Problems of social care for children and youth in Bukovina social, political and educational publications (end of the 19th century – 30s of the 20th century). *Austrian Journal of Humanities and Social Sciences*. 2014; 8(9):141–6.
34. Aleshina MV. Research activities as a form of multicultural education of students. *Austrian Journal of Humanities and Social Sciences*. 2014; 8(9):118–24.
35. Mihailova SV. Personal development of students in physical training as a result of humanization of education. *Austrian Journal of Humanities and Social Sciences*. 2014 Sep-Oct; 9(10):104–7.
36. Karelina MY. Several aspects of humanitarization of the professional education of students at a technical university. *Austrian Journal of Humanities and Social Sciences*. 2014; 9(10):117–20.
37. Shakhanova A, Kuzmin A, Grechishkina S, Khasanova N, Kalnaya E. The effect of sports physical loads on the somatic development and physical performance of young football and basketball players. *Indian Journal of Science and Technology*. 2015 Dec; 8(10):1–8.