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

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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 competences3,4. 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
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. To teach the technique of football, couches apply individual-group method of training, which is more efficient then team training. Obviously, the organisation of training process should be adapted, but efficacy of certain exercises and whole technique-oriented session increases. 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 co-native abilities. 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. Yežhov’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 | 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 |
|---------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| \( x = \frac{n}{m} y \) | Quantity 60 50 40 30 20 10 | Points 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 | 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 |
|---------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| \( x = \frac{n}{m} y \) | Quantity 20 16 12 8 4 2 | Points 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 | Test 4. Ground moves around 10 stands with limited number of touches, 10th touch is a shot on target | Test 5. Shuttle run with a ball, 6*9 m., with a touch to a cone |
|---------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| \( x = n - h - k \) | Seconds+errors 7 8 9 10 11 12 | Points 17 18 19 20 21 22 |
| Points | 6 5 4 3 2 1 | 6 5 4 3 2 1 |

| Formula | Test 7. 30 m. run with dribbling (sec.) | Test 8. Distance kick: a total distance for both legs (m.) |
|---------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| \( x = \frac{n}{m} y \) | Time, quantity 4,6 4,7 5,0 5,1 5,3 5,6 | Points 82 78 72 66 63 51 |
| Points | 6 5 4 3 2 1 | 6 5 4 3 2 1 |

| Formula | Test 9. Kicks from penalty area (number of goals) | Test 10. Distance shots of a ball (m.) |
|---------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| \( x = \frac{n}{m} y \) | Quantity 8 7 6 5 4 2 | Points 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 \( \bar{X} \) | \( \delta \) | m | V(%) | X \( \bar{X} \) | \( \delta \) | m | V(%) | Edp (\( \mathcal{E}_d \)) | Kdp (\( \mathcal{K}_d \)) | E-K (\( \mathcal{E}-\mathcal{K} \)) |
| 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          |                      | >0.05 |
|                                        | Interm.           | 4.47          | 0.6  | 0.05 | 11.1          | 5.41          | 0.5  | 0.04 | 9.14 |                      | >0.05          |                      | >0.05 |
|                                        | 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          | >0.05          | >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          |                      | >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          | >0.05          | >0.05 |
|                                        | Interm.           | 2.14          | 0.31 | 0.03 | 14.8          | 2.13          | 0.32 | 0.03 | 15.0 |                      | >0.05          | >0.05          | >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          |                      | >0.05 |
|                                        | Interm.           | 38.85         | 5.3  | 0.40 | 13.0          | 38.0          | 5.4  | 0.41 | 14.3 |                      | >0.05          | >0.05          | >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          |                      | >0.05 |
|                                        | Interm.           | 10.45         | 1.5  | 0.12 | 14.0          | 10.35         | 1.56 | 0.11 | 13.0 |                      | >0.05          | >0.05          | >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          | >0.05          | >0.05 |
|                                        | Interm.           | 41.56         | 4.5  | 0.37 | 10.6          | 41.5          | 5.37 | 0.74 | 13.1 |                      | >0.05          | >0.05          | >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          |                      | >0.05 |
|                                        | Interm.           | 33.7          | 4.0  | 0.31 | 12.3          | 33.69         | 4.6  | 0.36 | 14.1 |                      | >0.05          | >0.05          | >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          |                      | >0.05 |
|                                        | Interm.           | 9.32          | 1.30 | 0.1  | 13.9          | 3.32          | 1.40 | 0.9  | 15.1 |                      | >0.05          | >0.05          | >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 competitions.

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.

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