

RESULTS OF EXPERIMENTAL TESTING OF SYSTEM OF FUTURE PHYSICAL CULTURE TEACHERS' TRAINING FOR ART PEDAGOGIC MEANS' APPLICATION IN PEDAGOGIC FUNCTIONING

Nizhevska T. V.

H.S. Skovoroda Kharkiv National Pedagogical University

Abstract. *Purpose:* the research is devoted to seeking of ways to rising of quality of future physical culture teachers. *Material:* in experiment 436 students and 29 teachers participated. *Results:* it was found that readiness of future physical culture teachers for application of art pedagogic means in professional functioning is achieved through realization of appropriate block system. Such system ensures mastering by students of the following: theoretical principles of art pedagogic; mastering of art pedagogic skills in teaching and quasi professional functioning; acquiring of practical experience of art means' application in period of pedagogic practice at schools. It was also determined that training system of future teachers includes the following three blocks: conceptual-target, knowledge-procedural; control-correcting. *Conclusions:* it is recommended to use such criteria of students' readiness for application of art means in pedagogic functioning: motivation-axiological, cognitive-active, personality's-reflexive.

Key words: teacher, physical culture, art pedagogic, vocational training, structure, system, training.

Introduction

On modern stage of society's progress ensuring of comprehensive education of rising generation is becoming more and more topical. Efficiency of this process to large extent depends on quality of physical culture teachers' professional functioning. Discipline "physical culture" is one of school disciplines, which is taught during all period of pupils' studying at school that confirms significant role and leading place of physical culture in formation of comprehensively developed personality, strengthening and preservation of person's health.

In this sense problem of increasing of future physical culture teachers' quality is becoming rather topical. One of ways to solution of this problem is ensuring of physical culture students' readiness for application of art pedagogic means in their future pedagogic functioning.

Scientists have already researched certain aspects of the mentioned problem [2, 12, 14, 15, 17, 18], though it is necessary to say that training of future physical culture teachers for application of art means in pedagogic functioning was not special topic of separate pedagogic research.

Purpose, tasks of the work, material and methods

The purpose of the research is to experimentally test system of future physical culture teachers' training for application of art pedagogic means in professional functioning.

The hypothesis of the research implies that future physical culture readiness for using of art pedagogic means in future professional functioning is achieved through realization of appropriate block training system. Such system ensures mastering by students of the following: theoretical principles of art pedagogic, mastering of art pedagogic skills in teaching and quasi professional functioning; acquiring of practical experience of art pedagogic means' application during pedagogic practice at schools.

Organization of the research: for testing of our assumption we conducted pedagogic experiment. This experiment was conducted in period 2009 – 2012 on the base of H.S. Skovoroda Kharkiv National Pedagogical University and Kharkiv State Academy of Physical Culture. For experiment we formed experimental (217 persons) and control (219 persons) groups of students. Besides, in experimental work 29 teachers participated.

In experimental work we used the following criteria of students' readiness for application of art means in pedagogic functioning: motivation-axiological, cognitive-active, personality's-reflexive as well as appropriate indicators. Experiment included three stages: initial, forming and control.

At initial and control stages of experiment we used the following methods of the research: observation over students' academic functioning; questioning (with application of author's questionnaire, questionnaire by N.Yu. Sergeyeva on determination of students' attitude to art; questionnaire by N.Yu. Sergeyeva on express diagnostic of efficiency of students' training for application of art pedagogic means). Besides, we also applied: testing (with the help of author's test for diagnostic of students' knowledge about principles of art pedagogic, "scales for assessment of affirmations" by N.Yu. Srgyeva) [13]; diagnostic with the help of diagnostic method for empathy assessment (V. Boyko) [11]; methodic of poly-motivational tendencies' diagnostic "Self-concept" of personality by N. Shumakova [18]; methodic of "unfinished sentence" for diagnostic of students' motives; method of experts' assessment.

At initial stage of experiment it was found that levels of the mentioned above readiness do not significantly differ in experimental and control groups. With it these level were insufficient for effective pedagogic functioning in the future.

At forming stage of experiment in experimental group we implemented the worked out (block) system of future physical culture training for application of art means in professional functioning. Experimental work covered in-class lessons, as well as pedagogic practice and students' extra-curriculum activity.

Mastering of motivation-value component of the mentioned above readiness by students envisaged their understanding of art means' pedagogic potential, development of their motivation for mastering these means, as well as formation of value attitude to development of pupils' physical culture on the base of art works' usage. For this purpose different methods and forms of work were used. In particular, in process of pedagogic interaction different problems of art pedagogic were discussed with students. Pedagogic potentials of art means' application in curriculum and extra-curriculum physical culture teacher's functioning were analyzed. Attending of theatres and museums, art exhibitions, sport competitions and different festivals were organized for future physical culture teachers. It permitted for young people to receive emotional-aesthetic enjoyment from art pieces, to better understand art influence on personality. Besides, on this stage of experiment we conducted meetings with specialists in art pedagogic: with teachers-innovators, who widely use art means in their work. For activation of motivation for mastering of these means students were able to attend the lessons of these teachers in school. Also the students convinced in practice in high efficiency of art masterpieces as means of pedagogic influence.

Mastering of cognitive-functional component of readiness for application of art means in professional functioning by future specialists envisaged acquiring of required knowledge and skills by them. In order to form students' art pedagogic knowledge of strategic level and appropriate analytical skills we enriched lectures and seminars with proper material of art pedagogic orientation. In particular, at classes questions about essence of art pedagogic, role and place of art in development of personality, main advantages of art means' application in pedagogic functioning were discussed. Besides, we conducted extra-curriculum measures on the mentioned problem.

For students' mastering of art pedagogic knowledge and analytical skills of complex level we practiced in-class: talks, disputes, "vernal duels", "round tables", quiz, oral magazines; imaginary travels, devoted to certain topic. Besides, students received information about pre-prepared collections of music master pieces, collections of reproductions, different didactic multi media materials for schools.

At practical classes students also mastered knowledge of local level about usage of art means during teaching of specific topics at physical culture classes as well as during extra curriculum work with pupils. Besides, at these classes formation of students' art pedagogic skills of local level happened. It was realized with the help of such methods; art-sport exercises, role games; complexes of aerobic exercises, shaping, etc; art-physical culture workshops; art pedagogic trainings; art sport competitions, exhibitions, festivals; competitions on pedagogic skillfulness. It should also be noted that during pedagogic practice students conducted lessons and extra curriculum measures with application of different art means' complexes. It permitted for them to acquire practical experience in such application. For example, within experimental work students organized with primary school pupils music sport exhibitions by motives of known tales.

The mentioned above methods and forms of work activated also students' mastering of personality's component of readiness for application of art means in professional functioning. It envisaged formation of students' appropriate professional-personality's qualities: creativity, artistry, empathy, reflexivity, as well as adequate self assessment of these qualities' readiness. Besides, for improvement of self-assessment's adequacy students were involved in different kinds of portfolio.

In control group formation of mentioned above readiness was realized with the help of traditional for domestic pedagogic HEEs methods and forms of students' educational functioning.

Results of the researches

On the base of comparison of different specialists' views [1, 4, 5, 6, 7, 8, 9, 10,] we determined that structure of physical culture teachers' readiness for art means' application in professional functioning includes the following elements: motivation-value, cognitive-functional and personality's [19].

In its turn, on the base of scientists' conclusions [3, 16] we made conclusion that system of training of future physical culture teachers for art means' application in professional functioning, as a kind of pedagogic system, includes the following three blocks: conceptual target (theoretical-methodological principles of research, purpose and task of the mentioned training, principles and realization), cognitive-procedural (content of training on strategic, complex and local levels, methods and forms of realization) and control-correcting (control over state and current results of this process as well as correction, if required) [20].

For determination of confidentiality of pedagogic experiment's results we used Pirson's criterion. The researched parameters were measured by scale of three levels: high, average and low (c = 3). Statistic value T_{exp} is calculated by formula:

$$T_{exp} = \frac{1}{N_1 N_2} \sum_{i=1}^3 \frac{(N_1 Q_{2i} - N_2 Q_{1i})^2}{Q_{1i} + Q_{2i}}$$

Where N_1 – quantity of experimental group's students;

N_2 – quantity of control group's students;

Q_{1i} i Q_{2i} – quantity of students, who are at certain level of the mentioned kind of readiness: at high (i = 1), average (i = 2), low (i = 3) in experimental and control groups accordingly.

For level of significance $\alpha = 0.05$ and quantity of degrees of freedom $\nu = c-1 = 2$ critical value of statistic $T_{cr} = 5.99$. Distinctions in distribution of experimental and control groups' students by level of readiness for art means'

application are statistically significant ($p < 0.05$).

Analysis of presented in table 1 generalized results of experiment permits to make conclusion that by all specified criteria and indicators experimental group's students demonstrated more substantial positive changes in readiness for art means' application in professional functioning than control group's students.

Table 1

Generalized data about levels of students' readiness for art means' application in professional functioning

Levels of readiness	Experimental group (n=217)		Control group (n=219)	
	Initial stage	Control stage	Initial stage	Control stage
1	2	3	4	5
High	6.9 % (15 students)	23.8 % (52 students)	6.7 % (15 students)	8.9 % (19 students)
Average	40.8 % (89 students)	65.4 % (142 students)	41.4 % (90 students)	44.5 % (98 students)
Low	52.3 % (113 students)	10.8 % (23 students)	51.9 % (114 students)	46.6 % (102 students)

Discussion

Fragmented ideas about art means' application in school pedagogic process were expressed by scientists in different time [2, 3, 9, 13, 15]. Though, recent time scientists' interest to this problem has noticeably increased. In spite of many years development of art pedagogic ideas the term "art pedagogic" itself was used for the first time in 1997 in teaching-methodic manual "Principles of art therapy and art pedagogic in work with children and adolescents" (authors: Yu. Shevchenko and A. Krepytsia). However, this concept became widely spread only after publishing of work "Art pedagogic and art therapy in special education" [2]. Scientists researched different aspects of this problems but training of future physical culture teachers for art means application in pedagogic functioning was not the topic of separate research.

In our work on this problem we specified criteria and indicators of readiness levels of future physical culture teachers for art pedagogic application in professional functioning, worked out and experimentally tested block system of appropriate training.

Conclusions:

Experimental realization of the worked out system has proved its effectiveness. Practical significance of the received results implies possibility of their application in process of vocational training of future physical culture teachers, increasing of pedagogic staff qualification, creation of manuals and scientific-methodic recommendations, writing of course and magister works and diplomas.

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Conflict of interests

The author declares that there is no conflict of interests.

1. Azhippo OIu. *Pidgotovka majbutnikh uchiteliv fizichnoi kul'turi do profesijnoi diial'nosti v zagal'noosvitnikh navchal'nikh zakladakh* [Training of future physical culture teachers for professional functioning in comprehensive educational establishments], Kharkov; Digital printing N 1, 2012. (in Ukrainian)
2. Medvedeva EA, Levchenko Iu, Komissarova LN, Dobrovolskaia TA. *Artpedagogika i arterapiia v special'nom obrazovanii* [Art pedagogic and art therapy in special education], Moscow; 2001. (in Russian)
3. Bondarevskaia EV, Kul'nevich SV. *Pedagogika: lichnost' v gumanisticheskikh teoriiakh i sistemakh vospitaniia* [Pedagogic: personality in humanistic theories and systems of education], Moscow, Rostov on Don, Uchitel; 1999. (in Russian)

4. Vas'kov IuV. Koncepciia (proekt) reformuvannia fizkul'turnoi osviti v zagal'noosvitnikh navchal'nikh zakladakh [Conception (project) of formation of physical culture education in comprehensive educational establishments], *Pedagogics, psychology, medical-biological problems of physical training and sports*, 2009;2:40-46. (in Ukrainian)
5. Deminskij AC. *Nauchnye osnovy konstruirovaniia didakticheskikh modelej trenera-prepodavatel'ia k rabote v sisteme obrazovaniia* [Scientific principles of construction of didactic models of coach-teacher in educational system], Kirovograd, GLAU; 1998. (in Russian)
6. Demins'ka LO. *Mizhpredmetni zv'iazki u procesi profesijnoi pidgotovki majbutnikh uchiteliv fizichnoi kul'turi. Cand. Diss.* [Inter disciplinary connections in vocational training of future physical culture teachers. Cand. Diss.], Lugansk; 2004. (in Ukrainian)
7. Dragniev IuV. *Tvorcha samorealizaciia osobistosti majbutn'ogo vchitel'ia fizichnoi kul'turi u procesi profesijnogo rozvitku* [Creative self-realization of future physical culture teacher's personality in process of professional progress]. *Pedagogika i psikhologii profesijnoi osviti*, 2012;1:158-164. (in Ukrainian)
8. Iefimenko PB. *Pedagogichni umovi zabezpechennia riznorivnevoi profesijnoi pidgotovki majbutnikh fakhivciv fizichnoi kul'turi. Cand. Diss.* [Pedagogic conditions of ensuring future physical culture specialists of different levels. Cand. Diss.], Kharkiv; 2002. (in Ukrainian)
9. Zhelezniak IuD. *Podgotovka specialistov po fizicheskoi kul'ture i sportu v sisteme pedagogicheskogo obrazovaniia* [Training of physical culture and sport specialists in system of pedagogic education]. *Teoriia i praktika fizicheskoi kul'tury*, 2002;5:47-53. (in Russian)
10. Zubchenko L V. *Formuvannia pedagogichnoi tvorchosti majbutn'ogo vchitel'ia fizichnogo vikhovannia pri vikonanni tvorchikh pedagogichnikh igor* [Formation of future physical culture teacher's pedagogic creativity for pedagogic games]. *Visnik Lugans'kogo nacional'nogo universitetu imeni Tarasa Shevchenka*, 2010;8:44-48. (in Ukrainian)
11. Rajgorodskaia DIa. *Prakticheskaia psikhodiagnostika. Metodika i teksty* [Practical psycho-diagnostic. Methods and texts], Samara, Bahr-M; 2002. (in Russian)
12. Roters TT. *Teoriia i metodika razvitiiia lichnosti shkol'nika. Dokt. Diss.* [Theory and methodic of schoolchild personality's development. Doct. Diss.], Lugansk; 2001. (in Russian)
13. Sergeeva NIu. *Art-pedagogicheskoe soprovozhdenie professional'noj podgotovki budushchego uchitel'ia. Dokt. Diss.* [Art pedagogic support of future teacher's vocational training. Doct. Diss.]. Cheboksary; 2010. (in Russian)
14. Sushchenko LP. *Teoretiko-metodologichni zasadi profesijnoi pidgotovki majbutnikh fakhivciv fizichnogo vikhovannia ta sportu u vishchikh navchal'nikh zakladakh. Dokt. Diss.* [Theoretical-methodological principles of future physical education and sport specialists' vocational training at higher educational establishments. Doct. Diss.], Kyiv; 2003. (in Ukrainian)
15. Taranova EV. *Nravstvennoe vospitanie doshkol'nikov sredstvami artpedagogiki. Cand. Diss.* [Moral education of pre school children by means of art pedagogic. Cand. Diss.], Stavropol; 2003. (in Russian)
16. Shamova TI, Davydenko TM. *Upravlenie obrazovatel'nym processom v adaptivnoj shkole* [Management of educational process in adaptation school], Moscow: Teaching search; 2001. (in Russian)
17. Shaposhnikova II. *Personalizaciia procesu navchannia majbutnikh fakhivci z fizichnoi kul'turi i sportu. Cand. Diss.* [Personalization of future physical culture and sport specialists' teaching process. Cand. Diss.], Kharkiv; 2009. (in Ukrainian)
18. Shumakova NIu. *Artpedagogika: gumanizaciia obrazovaniia v oblasti fizicheskoi kul'tury* [Art pedagogic: humanization of education in field of physical culture], Moscow: Ileksa; Stavropol: Service School; 2010. (in Russian)
19. Nizhevska TV. *The Structure of Readiness Future Teacher of Physical Culture to the Use of Artpedagogy in Professional Activities. Teoriia ta metodika navchannia ta vikhovannia*, 2014;36:104-110.
20. Nizhevska T. *The system of training of future teachers of physical culture for use of means of art pedagogics in the professional activity. Slobozhanskyi herald of sciense and sport*, 2015;4(48):66-69. <http://dx.doi.org/10.15391/snsv.2015-4.012>

Information about the author:

Nizhevskaya T.V.; <http://orcid.org/0000-0002-1161-6658>;
nizhevski@gmail.com; H.S. Skovoroda Kharkiv National Pedagogical
University; Artema str. 29, Kharkov, 61002, Ukraine.

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