Н. В. Волынкина, В. В. Гладких, Т. В. Ларина

Интеллектуально-творческое развитие курсантов военного вуза в процессе иноязычного образования

Введение. Требования к профессиональной подготовке будущих офицерских кадров, способных принимать нестандартные решения профессиональных задач и необходимость формировать коммуникативную иноязычную компетенцию будущих военных специалистов в условиях активного международного сотрудничества актуализирует поиск эффективных педагогических технологий и условий интеллектуально-творческого развития курсантов военного вуза в процессе иноязычного образования. Сегодня не снято противоречие между объективной потребностью практики в научно-методическом обеспечении исследуемого процесса и недостаточной его технологической разработанностью на учебных занятиях по иностранному языку в военном вузе. Проблема исследования состоит в разрешении данного противоречия.

Материалы и методы. В исследовании приняли участие курсанты ВУНЦ ВВС «Военно-воздушная академия имени профессора Н.Е. Жуковского и Ю.А. Гагарина» (г. Воронеж), филиала ВУНЦ ВМФ «Военно-морская академия» (г. Калининград), Воронежского института ФСИН России. Результаты теоретико-эмпирических материалов основываются на понятийно-терминологическом анализе, педагогическом наблюдении, тестировании, экспертных оценках, количественно-качественном сравнении и методе математической статистики (критерий χ^2 -Пирсона).

Результаты. Количественно-качественный анализ статистических данных показал, что реализация авторской технологии посредством активации определенных механизмов на каждом ее этапе на основе коммуникативно-исследовательского подхода, реализующего принципы мотивационной творческой деятельности, проблемности, интеграции, праксеологической направленности и рефлексивности, а также создание педагогических условий способствует значительному повышению уровня интеллектуально-творческого развития курсантов военного вуза в процессе иноязычного образования ($\chi^2 = 23,021$).

Выводы. Авторами впервые предложена эффективная технология и выявлены педагогические условия интеллектуально-творческого развития как многокомпонентного процесса совершенствования интеллектуальных и творческих навыков и умений с целью самореализации и самоактуализации личности курсанта в военно-профессиональной деятельности. Развивающий потенциал иноязычного образования через диалог культур способствует формированию личности будущего офицера как субъекта родной культуры, владеющего системно-прогностическим мышлением на основе решения речемыслительных задач различной сложности, отражающих содержание профессионального общения.

Ключевые слова: интеллектуально-творческое развитие, иноязычное образование, курсанты военного вуза, системно-прогностическое мышление

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Military university cadets' intellectual and creative development during foreign language education

Introduction. Requirements to professional training of future officer personnel able to solve professional tasks in a creative way and necessity to develop the communicative competence including the foreign language one of future military specialists in the context of intensive international cooperation highlight the search for effective teaching technologies and conditions for military university cadets' intellectual and creative development during foreign language education. At present the contradiction between the objective necessity of practice in scientific and methodical ensuring the process studied and insufficient technological elaboration in the framework of foreign language education is not solved. The problem of the research is to solve the contradiction.

Materials and methods. Cadets of MESC AF "N.E. Zhukovsky and Y.A. Gagarin Air Force Academy" (Voronezh), the branch of MESC of the Navy "N.G. Kuznetsov Naval Academy" (Kaliningrad), VRI of the FPS of Russia (Voronezh) were involved into the research. The results of the theoretical and empirical materials were based on the terminology review, pedagogical observation, testing, expert assessment, qualitative and quantitative characteristics comparison, a mathematical statistics method (Pearson's χ^2 test).

Research result. The quantitative and qualitative analysis of the statistical data showed that the authors' technology implementation through activating the mechanisms at each stage on the basis of the communicative and investigative approach which implements the principles of motivating creative activity, problem, integration, practice-orientation, reflexivity and creating of the pedagogical conditions contributes to significant increasing military university cadets' development level during foreign language education ($\chi^2 = 23,021$).

Discussion and conclusion. For the first time the authors offer an effective technology and identify conditions of intellectual and creative development as a multi-component process of intellectual and creative skills improvement for a cadet's personality self-realization in the military professional activity. The developing potential of foreign language education through the culture dialogue contributes to future officer personality development as a subject of the native culture that possesses system and prognostic thinking on the basis of complex speech and thinking missions which reflect the content of professional communication.

Key words: intellectual and creative development, foreign language education, military university cadets, system and prognostic thinking

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Introduction

In the dynamically changing world active development of scientific and technological progress, globalization of the economy result in acceleration of change not only in social life of a state but in its defence capacity and political status. One of the safety criteria is a high degree of the military-industrial complex development. In this regard there is a need to develop intensively a military science as a priority in the development and management of new types of military equipment. Therefore, the most important task of military education is to train a specialist who possesses a high level of intellectual and creative development and is able to make effective use of the latest military technologies and solve professional tasks in a creative way and take responsibility for them.

According to the National education doctrine in RF for the period till 2025, the Education Act in RF № 273 FA in the content of which the idea of creating the most favorable conditions for the studying youth intellectual and creative development is highlighted, and the Order of the Ministry of Defence in RF № 670 work programmes on the discipline "Foreign language" regulating cadets' language training is worked out.

However, a reproductive component weakly aimed at creating real conditions for learning new ways of professional activity and thinking models keeps on prevailing in the process of military higher education. In this context it's obvious for the pedagogical science to turn to search for effective teaching technologies and conditions for military university cadets' intellectual and creative development during foreign language education.

Outstanding Russian scientists A.V. Brushlinskyi [1], S.L. Rubinshtein [2], M.A. Kholodnaya [3] and others developing theoretical framework and psychological mechanisms of personality intellectual and creative development focused on the essence, dialectics and logics of the creative thinking formation. In the context of the problem studied creativity conceptions developed by J.P. Guilford [4], Y.L. Karlson [5] et.al. are very interesting. The conceptual term "creative talent" is revealed in the papers of D.B. Bogoyavlenskaya [6], B.M. Teplov [7], J.S. Renzulli [8], R. Sternberg [9] and others.

At present the impact of interdisciplinary methods and technologies on personality intellectual and creative development development has intensively being studied by G.S. Altshuller [10], N.V. Volynkina [11, 12] et.al. It is proved that implementation of interdisciplinary tasks in the educational process is an effective means of educational process optimization (I.Ya. Lerner [13], A.M. Matyshkin [14] et.al.) which allows to reveal the potential of creative thinking development and creative skills formation (V.N. Maksimova [15], A. Mateiko [16] et.al.). The problems of theoretical and practical aspects of military university cadets' intellectual and creative development were studied by I.A. Alyohin [17], A.V. Barabanschikov [18], O.G. Pozdnyakov [19] et.al.

The problem was investigated in terms of problem and activity (V.N. Gulyayev, V.I. Marchenkov [20]), axiological (B.A. Fedulov [21]), akmeological (A.V. Menshikov [22]), system and dynamic (I.L. Zheleznyak [23]), technological (O.N. Ovsyanikova [24]) approaches.

However, the problem of military university cadets' intellectual and creative development from the position of a contemporary conception of the communicative foreign language education has not been sufficiently considered. It's purposeful to

consider the problem not within the term “foreign language teaching” but – from the culture dialogue viewpoint - during foreign language education. According to Ye.I. Passov [25] the purpose of foreign language education is not only teaching (communicative skills, communicative competence mastering) but educational (education of a spiritual person («homo moralis»), who is sure to be intellectually and creatively developed.

The analysis of scientific sources and theses (T.E. Vavilova [26], N.V. Mamedova [27], N.B. Fomashina [28]) showed that the technological aspect has not been sufficiently worked out. The purpose of the article is to present an authors’ technology and identify pedagogical conditions for university cadets’ intellectual and creative development during foreign language education.

The problem solution was carried out in several steps. The first step was to study the contemporary situation of the question in educational theory and practice on the basis of scientific literature analysis. The second step was devoted to a pedagogical experiment (ascertaining and formative) and studying the peculiarities of future officers’ intellectual and creative development during foreign language education. The third step dealt with processing the results on the basis of mathematical statistics and drawing conclusions.

Materials and methods

The object of the investigation is the process of foreign language education in a military higher school. The subject is military university cadets’ intellectual and creative development during foreign language education. The methods used were a terminology review, a pedagogical experiment (ascertaining and formative), pedagogical observation, testing, expert assessment, qualitative and quantitative characteristics comparison, a mathematical statistics method (Pearson's χ^2 test). MESC AF “N.E. Zhukovsky and Y.A. Gagarin Air Force Academy” (Voronezh), the branch of MESC of the Navy “N.G. Kuznetsov Naval Academy” (Kaliningrad), VRI of the FPS of Russia (Voronezh) were the experimental bases. 212 cadets at the age of 17-20 participated in the research.

Taking into account the structure of the military university cadets’ intellectual and creative development we worked out a criteria apparatus including criterion and their indicators which reflect the essence of each component and three levels – high, average and low. Monitoring the level of intellectual and creative development was carried out on the basis of five criterion (motivation, cognitive, competence, active, reflexive) before and after the experiment.

The level of the motivational component development was evaluated according to motivation criteria indicators on the basis of a questionnaire and diagnosis creative potential and creativity tests by E.E. Tunik and E.N. Tryakina. The levels of the informative (cognitive criteria indicators) and procedural (competence criteria indicators) components development were evaluated on the basis of specially designed by the authors’ control questions and theoretical and practical tasks and the method of expert assessment. The level of operational component (active criteria indicators) development was diagnosed with the questionnaire “Diagnosing peculiarities of self-organization” by N.G. Miloradova and A.D. Ishkov. The level of reflexive component development was evaluated according to reflexive criteria indicators with preparing reflexive portfolio, the test “Creativity” by N. Vishnyakova and A.V. Karpov’s questionnaire.

Research result

The terminology analysis of the concept “intellectual and creative development” allowed the authors to specify the content of the term “military university cadets’ intellectual and creative development”. Military university cadets’ intellectual and creative development is considered to be a multi-component process of intellectual and creative skills improvement for a cadet’s personality self-realization in the military professional activity. The process includes motivational, informative, procedural, operational and reflexive components.

The results of the test in the experimental and control groups at the ascertaining stage were approximately identical. A high level of intellectual and creative development (in total for all components) in both experimental and control group was found in 5,1% cadets. An average level was demonstrated by 25,3 % cadets of the experimental group and 27,4% cadets of control group. 69,6% cadets of the experimental group and 67,6% cadets of control group showed a low level. The Pearson criterion χ^2 was 0,316. It proved that the monitoring results in the experimental and control groups did not differ significantly, they were statistically equivalent.

After receiving the ascertaining stage results experimental teaching began.

The main part of the formative experiment was devoted to implementing the authors’ pedagogical technology consisting of cognitive and motivating, organizational and practical, final phases and creating pedagogical conditions on the basis of the communicative and investigative approach and the principles of motivating creative activity, problem, integration, practice-orientation and reflexivity.

The tasks of the cognitive and motivating phase were aimed at 1) forming a steady interest in creative problems and wish to solve them; 2) providing a theoretical and technological idea about the tools of solving creative problems in military professional sphere. Thus, the pedagogical work focused mainly on development of motivational and informative components [29].

In the form of seminars, panel discussions, interactive role playing in both native and foreign language a steady interest in intellectual and creative activity was developed on the basis of discussions about great Russian and foreign military leaders’ skills to carry out strategic and tactical missions, their ability to solve critical tasks with universal methods thereby readiness to intellectual and creative development in military professional sphere was revealed.

During consultations and independent work the cadets learnt terms, rules and methods of creative tasks solution (methods of the Theory of inventive problems solution – TRIZ [30, 31], morphological analysis, focal objects and others). In this way a very important pedagogical condition was created – cadets’ steady emotional and strong qualities, inner spiritual backbone formation targeted at creation and creativity. Goal-setting was triggered and the principles of motivating creative activity, problem and partially the principle of practice-orientation were implemented.

The second - organizational and practical – phase of the pedagogical technology focused on: 1) teaching how to plan the intellectual and creative activity concerning search, analysis, structuring foreign language information with ICTs; 2) teaching how to summarize and detail foreign language information, how to consider any system or an object as a “multiple screen” one; 3) teaching how to use effectively methods of military professional tasks solution in

practice, to transfer learned skills in a new situation; inculcating skills of public speech in a foreign language.

The goals were achieved with the authors' e-course book targeted at procedural and operational components of intellectual and creative development. The work on creative interdisciplinary projects, intensive intellectual and creative activity in the framework of the military scientific section (making reports at conferences, panel discussions, scientific and research work), participation in competitions and military foreign language Olympiads formed organizational pedagogical sphere of cadets' intellectual and creative development, there was a unity of educational work in the aspect of cadets' intellectual and creative activity stimulation.

Through the mechanism of practical implementation a set of methods, forms and means of cadets' intellectual and creative development was activated while ensuring its system and integrity during foreign language education in a military higher school.

The third - final - phase of the pedagogical technology was dedicated to formation of future officers' continuous self-development and self-actualization skills in the military professional sphere which were connected with reflexive component of intellectual and creative development through cadets' reflexive portfolio.

On the basis of the reflexivity and evaluation mechanism the cadets learnt how to build their professional life strategy which reflected a global idea of life-long self-development. It should be noted that throughout all the phases of the pedagogical technology there was a dialogue co-creation of the teacher and the cadets. It helped to achieve the results.

After the experimental teaching another testing was carried out. According to the testing 8,1 % cadets in the experimental group and 5,7% cadets in the control group demonstrated a high level; 54,1% cadets in the experimental group and 37,2% cadets in the control group showed an average level; the number of cadets with a low level decreased by 37,8% in the experimental group and by 57,1% in the control group (Figure 1).

Figure 1 The result of the experimental research of military university cadets' intellectual and creative potential development during foreign language education

The Pearson criterion χ^2 was 23,021. It showed that the statistics varied significantly among the experimental and control groups ($23,021 > 0,316$, $R_{exp.} > R_{cont.}$). Implementation of the authors' pedagogical technology and conditions resulted in increasing the number of cadets with a high level of the intellectual and creative development (56,4%), the number of cadets with an average level (75,4 %) and decreasing the number of cadets with a low level (36,6 %) comparing with the cadets from the control group.

The data received on the basis of qualitative and quantitative analysis with the mathematical statistics proved the fact that the authors' pedagogical technology and conditions contributes to significant increasing the level of military university cadets' intellectual and creative development during foreign language education.

Discussion

The novelty and uniqueness of the study is that for the first time intellectual and creative development is considered to be a multi-component process of intellectual and creative skills improvement for a cadet's personality self-realization in the military professional activity. The process includes motivational, informative, procedural, operational and reflexive components. The essence of military university cadets' intellectual and creative development in the context of the authors' technology is a pedagogically regulated process focused on developing these components on the basis of the communicative and investigative approach and the principles of motivating creative activity, problem, integration, practice-orientation and reflexivity. The specificity of the process is determined by special potential and opportunities of foreign language education in a military higher school which though the culture dialogue contributes to future officer personality development as a subject of the native culture that possesses system and prognostic thinking on the basis of complex speech and thinking missions which reflect the content of professional communication [32].

In this context for the first time the authors identified pedagogical conditions which influence the effectiveness of military university cadets' intellectual and creative development during foreign language education. They include 1) development of steady emotional and strong qualities, inner spiritual backbone formation targeted at creation and creativity; 2) implementation of methods, forms and means of cadets' intellectual and creative development while ensuring its system and integrity during foreign language education in a military higher school; 3) formation of the organizational pedagogical sphere of military university cadets' intellectual and creative development which represents a dynamic network of interrelated organizational pedagogical events; 4) unity of educational work in terms of cadets' intellectual and creative development stimulation built on the principles of motivating creative activity, problem, integration, practice-orientation and reflexivity; 5) a dialogue co-creation of the teacher and the cadets throughout all the phases of the intellectual and creative development pedagogical technology during foreign language education.

Conclusion

The technological aspect of the military university cadets' intellectual and creative development during foreign language education is an urgent problem in pedagogical science and practice. Having specified the content of the term "military university cadets'

intellectual and creative development” and identified its structural components the authors worked out and proved with the statistical analysis the effectiveness of the technology based on the developing potential of foreign language education. The phases of the technology, mechanisms and principles of implementation at each stage are presented for the first time, the pedagogical conditions are identified creation of which contributes to significant increasing military university cadets’ development level during foreign language education.

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