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Nechyporuk, Nataliia

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# THE DEVELOPMENT OF PROGRAM OF EXPERIMENTAL RESEARCH ON THE FORMATION OF INTERCULTURAL COMPETENCE OF HIGHER MILITARY EDUCATIONAL INSTITUTIONS CADETS DURING FOREIGN LANGUAGE TRAINING

**Nataliia Nechyporuk**

*Department of Foreign Languages  
Korolyov Zhytomyr Military Institute  
22, Myru ave., Zhytomyr, Ukraine, 10004  
natanechyporuk@ukr.net*

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## Abstract

In accordance with the European and world tendencies of professional training of military personnel, it is mandatory to emphasize the problem of forming the intercultural competence among cadets of higher military educational institutions. The process of formation of such a competence should be experimentally approved.

The general approaches to the structure of the experimental research program are analyzed and the necessity of a systematic approach to the formulation of the principles of scientific research, which are a means of proving the research hypothesis, is substantiated.

The program of the pedagogical experiment, aimed at testing the hypothesis, is described, which assumes that the level of intercultural competence of cadets of higher military educational institutions increases under the condition of involvement in the process of active communication by means of intercultural dialogue in the process of learning foreign languages, which reproduces the substantive and social content of professional competences in the process of mastering cultural knowledge and communication skills during reproductive, cognitive-exploratory, research and creative activities.

Tasks, stages, methods of experimental research are characterized. The stages and directions of introduction of the author's model of formation of intercultural competence of higher military educational institutions cadets in the process of foreign language training in accordance with structural components (motivational-value, cognitive-linguistic, communicative-strategic and evaluative-reflexive) are revealed.

**Keywords:** intercultural competence, foreign language training, experimental program, principles of scientific research.

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## 1. Introduction

Ukraine's course towards Euro-Atlantic integration, conditioned by the urgent need to ensure stability in the sectors of economy, law, security and defense, gives the reasoning for reformation in the military affairs of the Armed Forces of Ukraine and adaptation to the world trends in military education. In the military structures of Ukraine there is a question of ensuring interoperability and compliance with NATO standards. Military education of the 21 century has a two-vector nature, which is a combination of general and professional competences. The focus of our study is general intercultural competence, which is a means of building a constructive dialogue between people from different cultures. The formation of intercultural competence occurs at the stage of cadets' education in the process of foreign language training using a developed and experimentally tested model. The need to study how to sequence the actions and steps, taken by a researcher, is about a program of experimental research.

The main issues facing young researchers are the choice of research methods, hypothesis construction, compliance of the concepts with the principles of their implementation and the sequence of stages of scientific research. To develop a program of a pedagogical experiment, we have analyzed the pedagogical literature on the organization of scientific research, made by S. Honcharenko, T. Honcharuk, V. Horbunova, O. Kyrylenko, H. Lavrentieva, E. Khrykov, H. Tsekhmistrova, M. Garner, C. Wagner, B. Kawulich, B. Cohen, et al.

S. Honcharenko notes the variability in the choice of research methods that can be presented by observation, survey or use of available sources, but gives a decisive role to an experiment as a method that ensures the objectivity and reliability of the data, obtained during the study [1].

V. Horbunova supports the opinion of S. Honcharenko, defining an experiment as one of the basic methods of scientific research, which gradually replaced the descriptive methods of testing, questioning, observation, etc [2].

H. Lavrentieva considers it necessary in planning and conducting an experiment to adhere to certain principles of determinism, objectivity, unity of mind and activity and the principle of evolution [3].

E. Khrykov [4] and H. Tsekhmistrova [5] believe that one of the initial steps in planning an experimental study is to formulate a hypothesis that performs a purposeful function for the researcher. The correctly formulated hypothesis in the first part expresses the consequence, i.e. the expected result, and in the second part there should be the reason or conditions, under which the offered result is possible.

The literature being studied revealed the main concepts of how to plan and organize the stages and procedures of experimental research [6–8]. In the structure of scientific research, scientists identify different stages of research. O. Kyrylenko defines them as organizational, technological and final stages [9] and according to T. Honcharuk such stages are preparatory, empirical-theoretical and praxeological [10].

Foreign researchers focus on the structure of an experiment as a necessary background to prove the hypothetical assumptions and provide modeling of the education process.

M. Garner believes an experiment is relevant to examine education phenomena due to application of independent variables.

As for the structure of experiment M. Garner [11] and B. Cohen [12] consider three levels of pedagogical research practice to be the pilot study, pre-research, and the actual research. We share such point of view and apply the three levels program as well.

One of the methods to implement a pedagogical experiment is considered to be modeling. One of the steps of our experimental program is to develop the model of intercultural competence formation. Many American and European scientists assume modeling as foundation for both teaching and learning activities. Among them J. Gilbert, C. Boulter, A. G. Harrison, B. Y. White, J. R. Frederiksen, et al.

J. Gilbert [13] designed the typology of models for educational purposes in order to systematically study the attributes and modes of teacher and student interaction.

B. Y. White [14] argued about the necessity to use modeling in order to develop instructional theory and corresponding curricular materials for learners.

The aim of research is to describe the organization of a pedagogical experiment on the introduction of the author's model of formation of intercultural competence of cadets of higher military educational institutions in the process of foreign language training.

## 2. Materials and methods

The research uses a system of general scientific and specific methods of theoretical and empirical research (analysis and synthesis, systematization and generalization, logical-comparative and historical methods, systematic approach and modeling method).

The methods of analysis, generalization and historical one were used to study pedagogical literature on the issue introduced and sum up the contributions of native and foreign researchers.

The logical-comparative method and method of synthesis were applied as a means to structure the organization steps to design an algorithm of the program.

A systematic approach is considered to be the foundation of all the research as the key concept of intercultural competence, regarded as a system, composed of its congruent components.

The core of the experiment is the development of a model to form intercultural competence as a result of pedagogical influence.

### 3. Result and discussion

Considering the relevance of the study about formation of intercultural competence of cadets of higher military educational institutions during foreign language training there is a need to build a model and test its results. The experimental research on the formation of intercultural competence involves an algorithm to test the effectiveness of the author's model and identify causal links between the level of intercultural competence of the cadets and the implementation of the model. The pedagogical experiment is a scientifically substantiated experience in the field of educational activity, aimed at finding innovative, more effective ways to solve the pedagogical problem [6]. Therefore, the method of pedagogical experiment serves as a means of verifying the effectiveness of the introduction and justification of the theoretical conceptualizations of the dissertation research.

Thus, the purpose of the pedagogical experiment of our study is to experimentally test the effectiveness of the author's model for the formation of intercultural competence of cadets during foreign language training. As noted earlier, an important step in building a research program is to formulate a hypothesis.

In the experimental study it is hypothesized, that the level of intercultural competence of cadets of higher military educational institutions increases with the involvement in the process of active communication by means of intercultural dialogue in the process of learning foreign languages, which reproduces the substantive and social content of professional competences in the process of mastering cultural knowledge and communication skills during reproductive, cognitive-exploratory, research and creative activities. Selecting one or another method of cognition, we start from the system of principles as basic concepts and basic ideas, on which the process of cognition is based.

Thus, the principle of determinism expresses the crucial role of education in the process of personality transformation [3]. As for our research, this principle is represented by the pedagogical influence during mastering country study and culture study topics during the practical training in a foreign language.

The principle of objectivity is the need to substantiate theoretical assumptions and conclusions by selecting relevant facts, evidence and materials [3]. The basis of this principle is the ability to prove the effectiveness of the model of intercultural competence through the positive dynamics of competencies formation. The development of diagnostic tools as a stage in the research program makes it possible to identify and objectively assess indicators of the level of intercultural competence, taking into account its structure. Since the structure of intercultural competence in our study involves the coherence of motivational-value, cognitive-linguistic, communicative-strategic and evaluative-reflexive components, we assess intercultural competence accordingly through the level of motivation for intercultural communication, formation of cultural values and tolerance for other cultures, foreign language comprehension level of cadets, their consciousness to choose learning strategies and self-educational competences, reflection and self-assessment of acquired knowledge, skills and abilities.

The principle of unity of mind and activity is a condition for the application of communicative-activity approach in study, in which the cadet's consciousness, his or her motives, aspirations, values and attitudes are being studied through educational activities in the course of foreign language training, where the content of practical classes assumes the topical units to be grasped in accordance with the structural components of intercultural competence [3]. Thereby, the motivational-value component is realized at the beginning of the lesson during a warm-up stage through presentation of interesting and curious facts from different cultures in order to increase interest in their study. We propose to implement the next cognitive-linguistic component by providing entrance testing on the target topic proceeding with the pre-teach techniques. At PPP (present, practice, produce) stage, it is proposed to use a communicative-strategic component in order to select a learning strategy to perform communicative tasks. Finally, the evaluative-reflexive component is implemented through evaluation and assessment techniques, including self-evaluation and group evaluation like peer check and peer journals, as well as through feedback techniques.

The principle of evolution involves taking into account the age and psycho-physiological characteristics of cadets, which allows to implement an individual and differentiated approach to the learning process, choosing together with the cadets comfortable to achieve learning goals mode, pace, strategy and more [3].

Regarding the problem of methods selection, we used the following theoretical, empirical and mathematical research methods: analysis of psychological and pedagogical, scientific and methodological literature, state educational standards, legal documents, educational programs and syllabi of higher military educational institutions of Ukraine in the “Military Sciences, National Security, State Border Security” field of study, theoretical analysis of scientific approaches to the study of this pedagogical problem, as well as analysis of textbooks, class books and manuals in English to identify problems and contradictions in the field of foreign language teaching on the basis of a competence-based approach to defining goals and learning outcomes to form the necessary competences; system approach, which was used to identify the relationship and causal factors between the structural components of intercultural competence in the system of humanities study by cadets, as well as opportunities to optimize classroom timing by structuring thematic sections of English language learning by cadets; communicative-activity, culturological and axiological approaches, aimed at the development of competencies, skills and abilities of cadets to apply in practice the acquired knowledge of English in a multicultural environment; methods of observation, questionnaires and testing became the basis for determining the status and levels of formation of intercultural competence, the results of data processing, obtained by using these methods, identified problems of preparing cadets for intercultural interaction and became a prerequisite for optimizing the formation of intercultural competence; the modeling method is used to develop a structural-functional model of the formation of intercultural competence in the process of foreign language training; the method of pedagogical experiment was used as a priority to test the effectiveness of the proposed model, which together with statistical methods allowed to trace the positive dynamics of quantitative and qualitative changes in the studied pedagogical phenomena and processes [7].

Actually, the program of experimental research is presented by the following stages. The first “search and analytical” stage was aimed at the following tasks: determining the relevance, purpose, objectives, object, subject of scientific research; analysis of scientific literature, normative and legislative documents in the field of education; study of the problem field of research; detection of contradictions; systematization of basic concepts; development of the program of research and experimental work [8].

During the next “verification” stage, the current level of intercultural competence was measured, the content structure and model of formation of the aforementioned competence of higher education cadets were developed; criteria, indicators and levels of its formation were substantiated; the current state of the problem of formation and the level of intercultural competence of university cadets and officers was clarified [8].

The results of “formative” (“implementation”) stage were the introduction and experimental verification of the effectiveness of the model of formation of intercultural competence; development of teaching materials in the form of textbooks and manuals on the point of intercultural literacy, cultural diversity and military culture etiquette and procedures [8].

At the final and “generalizing” stage the results of the experiment were systematized and summed up; their statistical processing was carried out; general conclusions were formulated, prospects of further scientific research were outlined. All the steps, made to achieve the objectives of the study, are considered as a model of intercultural competence formation, which are shown in **Fig. 1**

Although the study is beneficial as the main reasons to accept pedagogy as an experimental method to prove a hypothesis were substantiated and main steps to design a program were highlighted, it focuses only on the theoretical statements of how to conduct the experiment. Thus, it is sufficient for further research to include practical and statistical methods to provide in-depth analysis of the problem.





<b>Target unit</b>		<b>Objective:</b> to ensure training of military personnel as competent specialists apt to intercultural cooperation	<b>Approaches to the objective:</b> – system approach; – culturological; – axiological; – competence; – communicative-activity; – differentiated.	<b>Pedagogical principles:</b> – principle of determinism; – principle of objectivity; – principle of unity of mind and activity; – principle of evolution
<b>Content unit</b>		<b>Implementation through interdisciplinary links:</b> "Ukrainian language", "Foreign language", "Culture Studies", "History of Ukraine", "Sociology".	<b>Curricula materials:</b> – Textbook “English for Military Personnel: Intercultural Competence”; – Workbook “English for Military Personnel: Intercultural Competence”; – Visual aids; – E-resources (H5P books, podcasts, video casts).	
<b>Procedure unit</b>		<b>Stages of implementation of the experimental research program:</b> – search and analytical stage – verification stage – formative (“implementation”) stage – generalizing stage		
<b>Performance unit</b>		<b>Components:</b> – motivational-value cognitive-linguistic – communicative-strategic – evaluative-reflexive	<b>Criteria:</b> – motivational – epistemological – activity – reflexive	<b>Levels of formation:</b> – initial (SLP 1) – average (SLP 1+) – sufficient (SLP 2)

Fig. 1. A model of intercultural competence formation

## 6. Conclusions

As the result, we have clarified the stages, principles and preconditions that became the basis of the process of planning the stages of scientific research.

The basic, in our opinion, ideas of leading researchers in pedagogy concerning planning of scientific work and development of the program of experiment as a research method are covered.

It is offered to investigate the scientific problem of formation of intercultural competence in four stages ("search and analytical", "verification", "formative", "generalizing"), and the purposes to each stage are defined.

The system of methods and principles of experimental research was clarified and their application within our research was substantiated.

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## References

- [1] Honcharenko, S. U. (2008). Pedahohichni doslidzhennia: metodolohichni porady molodym naukovtsiam. Vinnytsia: TOV firma «Planer», 278. Available at: [http://ipf.tnpu.edu.ua/wp-content/uploads/2014/09/Goncharenko\\_pedagogicheskie\\_issledovaniya\\_metodologiches.pdf](http://ipf.tnpu.edu.ua/wp-content/uploads/2014/09/Goncharenko_pedagogicheskie_issledovaniya_metodologiches.pdf)
- [2] Horbunova, V. V. (2005). Do problemy metodolohichnykh zasad eksperymentu v psykholohii. Naukovi zapysky Instytutu psykholohii im. H. S. Kostiuka APN Ukrainy, 26, 383–386.

- [3] Lavrentieva, H. P., Shyshkyna, M. P. (2007). *Metodychni rekomendatsii z orhanizatsii ta provedennia naukovo-pedahohichnoho eksperymentu*. Kyiv: IITZN, 74. Available at: <https://core.ac.uk/download/pdf/11083851.pdf>
- [4] Khrykov, Ye. M., Kurylo, V. S., Adamenko, O. V. (2013). *Metodolohichni zasady pedahohichnoho doslidzhennia*. Luhansk: Vyd-vo DZ «LNU imeni Tarasa Shevchenka», 248.
- [5] Tsekhmistrova, H. S. (2003). *Osnovy naukovykh doslidzen*. Kyiv: Vydavnychiy dim «Slovo», 240.
- [6] Antonova, O. Ye. (2014). *Slovyk bazovykh poniat z kursu «Pedahohika»*. Zhytomyr: Vyd-vo ZhDU imeni Ivana Franka, 100.
- [7] Nechyporuk, N. L. (2021). Overview of traditional and current methods and approaches for the formation of intercultural competence of cadets of higher military educational institutions. *Innovate Pedagogy*, 1 (33), 95–99. doi: <http://doi.org/10.32843/2663-6085/2021/33-1.19>
- [8] Mykolaenko, N. M. (2017). *Formuvannya profesiinoi kultury maibutnikh redaktoriv dytiachykh osvitnikh vydan u protsesi fakhovoi pidhotovky*. Zhytomyr, 266.
- [9] Kyrylenko, V. V., Pysmennyi, N. M., Tkachuk, O. P. et. al. (2012). *Metodyka ta orhanizatsiia naukovykh doslidzen*. Ternopil: TNEU, 196.
- [10] Honcharuk, T. V. (2014). *Osnovy naukovykh doslidzen*. Ternopil, 272.
- [11] Garner, M., Wagner, C., Kawulich, B. (2009). *Teaching Research Methods in the Social Sciences*. Farnham: Ashgate, 244.
- [12] Cohen, B. (1998). *Developing Sociological Knowledge*. Hampshire: Cengage Learning, 368.
- [13] Gilbert, J., Boulter, C. (2000). *Models and modelling in science education*. Dordrecht: Kluwer.
- [14] White, B. Y., Frederiksen, J. R. (1998). Inquiry, Modeling, and Metacognition: Making Science Accessible to All Students. *Cognition and Instruction*, 16 (1), 3–118. doi: [http://doi.org/10.1207/s1532690xci1601\\_2](http://doi.org/10.1207/s1532690xci1601_2)

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