## **REVIEW**

of the Official Opponent Doctor of Pedagogical Sciences, Professor

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on the dissertation research of Liu Han «Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions»

submitted for the degree of Doctor of Philosophy (PhD) in the field of knowledge 01 Education/Pedagogy,
Specialty 011 Educational, Pedagogical Sciences

Relevance of the Research Topic. The relevance of Liu Han's research is determined by the fact that it addresses one of the global problems of modern professional pedagogical education – the objective necessity of its reform in order to ensure the training of a new generation of teachers who are prepared to meet contemporary educational challenges, and by the actual state of their professional training in higher education institutions. The current professional training of future physical education teachers requires substantial adjustments to the content, forms, and methods of the educational process, a shift from a knowledge-based to a competence-based paradigm, and a focus on the formation of the integral competence of future teachers.

It should be noted that the professional activity of a physical education teacher has a complex structure and significant differences from other pedagogical professions. This activity requires from the teacher a high level of knowledge in such fields as pedagogy, psychology, anatomy, and biology; mastery of the means, methods, and forms of pedagogical influence; a high level of physical and technical preparedness; the development of pedagogical abilities; and the formation of certain traits and qualities of personality, which together constitute the professional readiness of the future physical education teacher for the profession.

The relevance of the research is reinforced by the contradictions identified by Liu Han, the most significant of which are the following: between the need of society for future physical education teachers prepared to meet modern educational challenges and the actual state of their professional training in higher education institutions; between the high requirements for professional and pedagogical training within the framework of forming communicative competence in future teachers and the insufficient level of communicative competence developed in physical education students at higher education institutions for carrying out their professional activity; between the needs of general secondary education institutions for physical education teachers capable of effectively implementing pedagogical interaction during physical education classes and the insufficiently organized training of students in higher education institutions in this regard; and between the objective necessity of defining, from a scientific standpoint, and implementing certain effective pedagogical conditions and scientific-methodological support for the formation of communicative competence in future teachers during their professional training and the empirical character of its realization under the traditional organization of teacher

education in higher education institutions.

Therefore, the research proposed by Liu Han for consideration, which is devoted precisely to this problem, is relevant, timely, and in demand, and it serves the overarching goal of forming a professionally trained future physical education teacher.

## Connection of the Dissertation with Scientific Programs, Plans, and Topics

The dissertation research was carried out in accordance with the research project of the Department of Educology and Pedagogy of the West Ukrainian National University "Professional Growth of an Educational Institution Teacher: Fundamental, Theoretical-Technological, and Practice-Oriented Aspects" (State Registration Number 0121U110855). The research topic was approved at the meeting of the Department of Educology and Pedagogy (Minutes No. 5 of November 9, 2021).

The Degree of Substantiation of the Scientific Provisions, Conclusions, and Recommendations Formulated in the Dissertation Research The analysis of the main content of the dissertation makes it possible to state that the applicant has correctly chosen the object, subject, and purpose of the study, which allowed for the competent and precise determination of the overall objectives, their full implementation, as evidenced by the obtained results, formulated conclusions, and recommendations that are consistently presented in 15 publications by the author (12 of them single-authored), including 4 reflecting the main scientific results of the dissertation (all published in Ukrainian professional scientific journals of category "B"), 9 of an approbation nature, and 2 publications additionally reflecting the scientific results of the dissertation.

The work reflects the results of a detailed review of 287 literary sources, which testifies to the applicant's comprehensive analysis of the researched problem. Liu Han's dissertation thoroughly and convincingly presents the fundamental scientific and theoretical provisions that determine the author's position. The applicant has clearly defined the normative base, the methodological and theoretical foundations of the scientific-pedagogical research, as well as the four stages of the study, which was conducted during 2021–2025.

Evaluation of the Content and Completeness of the Dissertation. The purpose, objectives, and material determined the corresponding structure of the scientific work, which is characterized by completeness and the internal unity of its aim and concept. The dissertation consists of an introduction, three chapters, conclusions to each of them, general conclusions, a list of references, and appendices. The total volume of the dissertation is 301 pages of printed text, with the main content presented on 198 pages. The work contains 10 figures and 34 tables.

Analysis of the **First Chapter** of the dissertation – Theoretical Foundations of the Professional Readiness of Future Physical Education Teachers for Professional Activity" demonstrates that, in substantiating the theoretical foundations of the formation of communicative competence of future physical education teachers in higher education institutions, the doctoral candidate justifies

the author's concept of forming communicative competence in future physical education teachers in higher education institutions through the use of innovative technologies. The dissertation also provides a definitional analysis of the basic concepts of the research, identifies the specific features and problems of professional training of future teachers in higher education institutions, and, while thoroughly determining the scientific guidelines for addressing the problem, concisely and critically reviews the works of predecessors.

The high-quality analysis of scientific approaches to the professional training of future physical education teachers demonstrates the importance of creating conditions for their comprehensive preparation, which involves the development not only of physical but also of psychological and social aspects of pedagogical activity. Professionalism in this field requires teachers to possess adaptive abilities to new teaching methods, mastery of innovative learning technologies, as well as a high level of communicative and social skills. It has been proven that the main direction of professional training is to ensure the flexibility and ability of teachers to adapt to ever-changing requirements and realities, in particular through the improvement of pedagogical strategies and tactics.

Important aspects include the formation of skills to analyze and evaluate physical, psychological, and social processes in student groups, as well as to adapt physical education lessons to the individual needs and abilities of each pupil. Such an approach directs future teachers not only toward the continuous development of professional knowledge but also toward the improvement of their own communicative abilities and skills, which have a direct impact on the effectiveness of their pedagogical interaction. In this regard, the assertion is valid that the integration of foreign educational systems' experience, which actively employ modern methods of developing communicative competence, is promising for the development of the national system of preparing communicative competence in future physical education teachers. The implementation of such practices enables students to develop the ability to adapt to new educational realities, to use the latest technologies in the learning process, and to cultivate a culture of communication and effective interaction, which is an essential component of the teaching profession.

We agree with the doctoral candidate that the modern professional training of future physical education teachers should be anticipatory in nature, oriented toward the prospects for the development of the field of physical culture and sports, and aimed not at the accumulation of theoretical knowledge but at the development of the student's creative potential.

In the **Second Chapter** In the second chapter, "Justification of the Structural-Functional Model and Pedagogical Conditions for the Formation of Communicative Competence of Future Physical Education Teachers in Higher Education Institutions", Liu Han examined the essence and specificity of the studied competence, which is described in terms of its components and criteria, as well as the systematic, in-depth, and integrated character of students' professional knowledge. Worth noting is the doctoral candidate's assertion that the formation of communicative competence of future physical education teachers is a

multidimensional process that combines theoretical preparation with pedagogical practice and encompasses the development of professional communicative knowledge, skills, and abilities, as well as communicative reflection. It includes stimulating, cognitive, organizational-communicative, and health-preserving components; facilitates conflict resolution and the implementation of pedagogical dialogue; and ensures a dialogical learning environment conducive to the comprehensive development of pupils' personalities.

A positive aspect is that the researcher independently identified and substantiated a set of pedagogical conditions for the formation of subjectmethodological competence of future physical education teachers. These conditions are purposefully created in accordance with the goals of professional training and pedagogical circumstances and comprehensively include a system of forms, methods, and practical approaches to the implementation of educational tasks. The review and analysis of scientific works made it possible to specify the following pedagogical conditions: designing an educational environment that provides broad opportunities for the development of the communicative activity of each future physical education teacher; implementing active forms and methods of learning aimed at deepening and systematizing knowledge regarding the formation of communicative competence in future physical education teachers; developing general and professional competences in the context of an interdisciplinary approach to the professional training of future physical education teachers; and fostering the organizational and communicative skills and abilities of future physical education teachers.

In practical terms, these pedagogical conditions were expressed in specific methodological, technological, and organizational vectors of innovating the professional training of future physical education teachers.

An important scientific achievement of the doctoral candidate is considered to be the development of a structural-functional model, which was created on the basis of the requirements of the modeling method in pedagogical research. Therefore, it is characterized by integrity (all component blocks interact with each other and are directed toward achieving the final result), systematicity (it consists of elements, each of which is an inseparable part), openness (the structure of the model can be supplemented with new knowledge in accordance with changing requirements regarding the quality of professional training of future physical education teachers), flexibility, variability, and serves as a graphical analogue of the description of real research actions in the direction of forming communicative competence in future physical education teachers.

The defined pedagogical conditions fully correspond to the subject of the research and encompass all aspects of the educational process. The dissertation text provides a description of each of these conditions and the ways of their implementation.

In **the Third Chapter**, "Experimental Verification of the Effectiveness of the Structural-Functional Model of Forming Communicative Competence of Future Physical Education Teachers in Higher Education Institutions", the stages and

methodology of organizing the pedagogical experiment on the formation of communicative competence of future physical education teachers are revealed. The effectiveness of the proposed methodology for implementing pedagogical conditions and the structural-functional model of forming communicative competence of future physical education teachers is substantiated.

A significant achievement of the researcher is considered to be the pedagogical experiment conducted to test the methodology of forming communicative competence in future physical education teachers. The experimental methodology was based on systematized and adapted educational and methodological materials, situational exercises, interdisciplinary projects, and cases that contained special thematic content transformed into a practice-oriented format.

The reliability of the obtained results and the validity of the experimental study were proven through the use of statistical methods of processing the results of the pedagogical experiment. The comprehensively applied diagnostic tools clearly indicate a positive dynamic in the formation of communicative competence among future physical education teachers.

Scientific Novelty and Reliability of the Scientific Provisions of the **Dissertation.** In general, we note the high scientific and methodological level of Liu Han's dissertation research. The dissertation is distinguished by the scientific novelty and practical significance of the obtained results, among which in pedagogical theory, for the first time: the pedagogical conditions for the formation of communicative competence in future physical education teachers in higher education institutions have been identified and theoretically substantiated (designing an educational environment that ensures broad opportunities for the development of communicative activity of each future physical education teacher; implementing active forms and methods of learning aimed at deepening and systematizing knowledge regarding the formation of communicative competence in future physical education teachers; developing general and professional competences, including communicative competence, in the context of an interdisciplinary approach to the professional training of future physical education teachers; organizational and communicative skills and abilities of future physical education teachers). An effective methodology for their implementation in the teaching of professional training disciplines has been developed, as well as an original Program for the formation of communicative competence in students of higher education institutions.

A structural-functional model of forming communicative competence in future physical education teachers has been developed as a set of *strategic* (social demand for physical education teachers, goals, objectives, scientific and pedagogical principles of the study), *conceptual-methodological* (methodological approaches, informational and substantive content of the process of forming communicative competence of future physical education teachers in the course of studying professional cycle disciplines, pedagogical conditions and technological support of student learning—stages, types of educational activity, resources, methods, forms, elective course «Development of Communicative Competence in Future Physical

Education Teachers»), and *criteria-diagnostic* (components, criteria, levels of formation) blocks. Together, they make it possible to take into account the dynamically changing requirements for the formation of communicative competence of future physical education teachers in higher education institutions.

The content and essence of the concepts of "professional training of physical education teachers," "competence of future physical education teachers," "communicative competence of future physical education teachers," and "socio-communicative activity of future physical education teachers" have been improved; the criteria (motivational, knowledge-based, communicative, and health-preserving) and levels (high, sufficient/optimal, satisfactory/productive, and low/basic) of the formation of communicative competence of future physical education teachers in higher education institutions *have been substantiated*. Furthermore, the content of professional training within the framework of developing communicative competence in future physical education teachers in higher education institutions, as well as the forms and methods of forming this competence among higher education students, have been further developed.

Practical Significance of the Dissertation Research Results It is determined by the considerable prospects for further implementation of the author's methodology for the realization of pedagogical conditions and the structuralfunctional model in the process of professional training of future physical education teachers, in particular: the author's Program for the Formation of Communicative Competence in Future Physical Education Teachers, through introducing modifications to certain topics of the curricular content of the disciplines "Theory and Methodology of Physical Education," "Theory and Methodology of Children's and Youth Sports," and "Professional Mastery (by Professional Orientation)" (Specialty 014.11 Secondary Education – Physical Education, Bachelor's level), and strengthening the interdisciplinary connections between them; the author's elective course «Development of Communicative Competence in Future Physical Education Teachers», which has been introduced and implemented within the framework of students' independent work at higher education institutions; and a set of mind maps for information support in studying the discipline "Professional Mastery (by Professional Orientation)" and for the schematization of intradisciplinary and interdisciplinary connections.

The obtained results of the research activity can be effectively applied in the system of professional training of future teachers in higher education institutions; in the preparation of educational and methodological support for the formation of communicative competence of teachers; and in the development of educational components aimed at fostering the communicative qualities and abilities of future physical education teachers.

In the future, the research results can be implemented in professional development courses for teachers of general secondary education institutions, provided that the developed materials are adapted. The research results have already been introduced into the educational process of professional training for future physical education teachers at Khmelnytskyi National University (certificate of

implementation dated April 29, 2025), the State Higher Educational Institution "Uzhhorod National University" (certificate of implementation dated May 13, 2025), and Ternopil Volodymyr Hnatiuk National Pedagogical University (certificate of implementation dated May 13, 2025).

The logical presentation of the content of Liu Han's dissertation research, its overall completeness, and the consistency of the abstract with the main provisions of the dissertation deserve positive evaluation.

The results of the conducted research provide grounds to state that the defined objectives have been achieved, the purpose has been realized, and the totality of the obtained scientific provisions is of significant importance for professional pedagogy.

**Absence of Academic Integrity Violations.** No instances of academic integrity violations were found in Liu Han's dissertation research. The work was carried out independently, in compliance with the requirements of scientific ethics, proper citation of sources, references to authors, and correct presentation of theoretical provisions.

In the publications co-authored with others, the doctoral candidate's personal contribution is clearly defined, which corresponds to the norms of academic transparency. The author adheres to the standards of bibliographic referencing and demonstrates respect for the intellectual contributions of other researchers, appropriately integrating their ideas into her own theoretical framework.

The content of the dissertation is original, logically structured, and convincingly substantiated, which makes it possible to affirm the high level of academic integrity of both the research and the applicant herself.

**Debatable Provisions and Remarks Regarding the Content of the Dissertation.** Without diminishing the overall approval of Liu Han's research, which possesses undeniable theoretical novelty and practical significance, we consider it appropriate to express certain remarks, which we define as recommendations:

- 1. In the first chapter, the components of communicative competence of future physical education teachers are thoroughly analyzed; however, it would have been desirable to provide the author's own definition of "communicative competence of future physical education teachers."
- 2. While substantiating the relevance of the dissertation problem, the author highlights a number of contradictions. It would be preferable for the work to more clearly specify which of these contradictions have been resolved in the dissertation.
- 3. The methodology of the pedagogical experiment is described comprehensively. However, it would be interesting to know how the mathematical and statistical calculations were carried out in other higher education institutions located at a distance.
- 4. We believe it would be reasonable to expand in subsection 3.1 the logic of assembling the experimental and control groups in the process of organizing the pedagogical experiment, which would add persuasiveness to the obtained results.

- 5. It would also be appropriate for the author's educational and methodological complexes, developed and implemented in the process of professional training of future physical education teachers, to be included in the appendices and published as a separate educational-methodological edition for more detailed familiarization and possible implementation in other higher education institutions.
- 6. The dissertation is not entirely free of stylistic and orthographic shortcomings.

However, based on a thorough analysis of the defended dissertation, we note that the expressed remarks and recommendations do not significantly affect the overall positive evaluation of the dissertation research.

Overall, Liu Han's dissertation «Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions» is an independent and fully completed work; it is characterized by undeniable relevance, scientific novelty, theoretical and practical significance; it contains substantial scientific contributions, new and previously unsubstantiated scientific provisions, and well-founded conclusions, all of which are fully reflected in scientific publications. The research results are rational for solving the problem of forming subject-methodological competence of future physical education teachers.

The work meets the established requirements of items 6, 7, 8, and 9 of the «Procedure for Awarding the Degree of Doctor of Philosophy and Revocation of the Decision of a One-Time Specialized Academic Council of a Higher Education Institution or Scientific Institution on Awarding the Degree of Doctor of Philosophy», approved by the Resolution of the Cabinet of Ministers of Ukraine of January 12, 2022, No. 44 (as amended by the Resolutions of the Cabinet of Ministers of Ukraine No. 341 of March 21, 2022, No. 502 of May 19, 2023, and No. 507 of May 3, 2024), which provides grounds for awarding Liu Han the degree of Doctor of Philosophy (PhD) in Specialty 011 Educational, Pedagogical Sciences.

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