

**APPROVED**

Vice-Rector for Scientific Research

West Ukrainian National University

**Mykola DYVAK**



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**CONCLUSION**

on the scientific novelty, theoretical and practical significance of the dissertation results  
by **Liu Han** on the topic:

**“Formation of Communicative Competence in Future Physical Education Teachers in  
Higher Education Institutions”,**

submitted for the degree of Doctor of Philosophy in the field of knowledge  
01 Education/Pedagogy, specialty 011 Educational, Pedagogical Sciences

**Excerpt**

from the minutes of the meeting of the specialized seminar  
of the Department of Educology and Pedagogy  
West Ukrainian National University  
dated 26.08. 2025. Minutes No.1

**PRESENT:** Acting Head of the Department of Educology and Pedagogy, Doctor of Pedagogical Sciences, *Professor V.M. Chaika*; Professor of the Department of Educology and Pedagogy, Doctor of Pedagogical Sciences, *Professor L.Z. Rebukha*; Deputy Dean of the Faculty of Social and Humanitarian Sciences, Professor of the Department of Information and Socio-Cultural Activities, Doctor of Pedagogical Sciences, *Professor Y.A. Shcherbyak*; Associate Professor of the Department of Educology and Pedagogy, Candidate of Pedagogical Sciences, *Associate Professor O.L. Hlavatska*; Associate Professor of the Department of Educology and Pedagogy, Candidate of Pedagogical Sciences, *Associate Professor O.V. Krychkivska*; Associate Professor of the Department of Educology and Pedagogy, Candidate of Pedagogical Sciences, *Associate Professor O.T. Pysarchuk*; Associate Professor of the Department of Psychology and Social Work, Candidate of Pedagogical Sciences, *Associate Professor Z.I. Krupnyk*; Associate Professor of the Department of Foreign Languages and Information and Communication Technologies, Candidate of Pedagogical Sciences, *Associate Professor M.Z. Kuziv*; Associate Professor of the Department of Educology and Pedagogy, Candidate of Economic Sciences, *Associate Professor I.I. Bilous*; Associate Professor of the Department of Educology and Pedagogy, Candidate of Economic Sciences, *Associate Professor A.V. Demianiuk*; PhD, Senior Lecturer of the Department of Educology and Pedagogy *N.O. Ratushniak*; Lecturer of the Department of Educology and Pedagogy *A.M. Shyshak*; Lecturer of the Department of Educology and Pedagogy *R.Y. Rudenskyi*; postgraduate students *Li Lili, Li Yida, Liu Han* (online), *Chen Runhao*.

Among those present there were 3 Doctors of Pedagogical Sciences and 6 Candidates of Pedagogical Sciences – experts in the field of the submitted dissertation.

The chair of the meeting was the Acting Head of the Department of Educology and Pedagogy, Doctor of Pedagogical Sciences, Professor Volodymyr Myroslavovych Chaika.

#### **AGENDA:**

Discussion of the dissertation research of postgraduate student Liu Han on the topic “Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions”, submitted for the degree of Doctor of Philosophy in the field of knowledge 01 Education/Pedagogy, specialty 011 Educational, Pedagogical Sciences, regarding its recommendation for defence.

#### **LISTENED ABOUT:**

1. Report by Liu Han based on the materials of the dissertation “Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions”, submitted for the degree of Doctor of Philosophy in the field of knowledge 01 Education/Pedagogy, specialty 011 Educational, Pedagogical Sciences.

Liu Han presented a report on the main provisions of the dissertation, its scientific novelty, and the most significant theoretical and practical results of the research submitted for defence.

2. Questions to the PhD candidate.

During the meeting, the participants addressed the following questions to the presenter:

– associate Professor of the Department of Educology and Pedagogy, Candidate of Pedagogical Sciences, Associate Professor *O.T. Pysarchuk* – You have stated the aim of your research. In accordance with this aim, what tasks did you address?

– associate Professor of the Department of Educology and Pedagogy, Candidate of Pedagogical Sciences, Associate Professor *O.L. Hlavatska* – Did you encounter any difficulties in the process of conducting the pedagogical experiment? If so, what kind?

– professor of the Department of Information and Socio-Cultural Activities, Doctor of Pedagogical Sciences, Professor *Y.A. Shcherbyak* – Question 1. Every dissertation applies research methods. What research methods did you use in your work? Question 2. The approbation of dissertation results is a necessary and important condition for a successful defence. My question is: where did you conduct such approbation?

– PhD, Senior Lecturer of the Department of Educology and Pedagogy *N.O. Ratushniak* – The results of your research were confirmed experimentally. Which higher education institutions served as the experimental base for your study?

– associate Professor of the Department of Foreign Languages and Information and Communication Technologies, Candidate of Pedagogical Sciences, Associate Professor *M.Z. Kuziv* – Within the framework of the elective course “Development of Communicative Competence in Future Physical Education Teachers”, what areas of work did you implement?

– acting head of the Department of Educology and Pedagogy, Doctor of Pedagogical Sciences, Professor *V.M. Chaika* – Question 1. In the course of your research you obtained certain results. Where can they be applied? Question 2. The formation of communicative competence in future physical education teachers was facilitated by the pedagogical conditions you selected. How did you choose them?

– associate Professor of the Department of Psychology and Social Work, Candidate of Pedagogical Sciences, Associate Professor *Z.I. Krupnyk* – Question 1. You noted that in order to

develop students' communicative competence you introduced your elective course "Development of Communicative Competence in Future Physical Education Teachers". How did you implement it and with what outcomes? Question 2. The pedagogical experiment was conducted with students of the Physical Education specialty. How did you select the control and experimental groups for the pedagogical experiment?

The PhD candidate provided comprehensive answers to all the questions, which demonstrated her scientific maturity.

3. Conclusion of the scientific supervisor – Professor, Doctor of Pedagogical Sciences, Professor of the Department of Educology and Pedagogy *Liliya Zinoviivna Rebukha* (the conclusion was submitted).

Prof. L.Z. Rebukha noted that Liu Han completed her dissertation research during her postgraduate studies at West Ukrainian National University in the Department of Educology and Pedagogy. Prof. Rebukha emphasized that the issue of pedagogical conditions for the formation of professional communicative competences of specialists remains underexplored compared to the level of research devoted to other professional competences. Furthermore, the relevance of the chosen research topic is reinforced by the insufficient level of its theoretical and methodological substantiation, as well as by the identified contradictions in the training of specialists in higher education institutions with regard to acquiring communicative competence. The socio-pedagogical challenges described by the PhD candidate concerning the preparation of teachers of this specialty and the unresolved scientific problems determined the relevance of selecting the dissertation topic "Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions".

The achieved research result became possible due to the scientifically grounded structure of the dissertation. Thus, the first chapter of the dissertation presents the conceptual and categorical framework for substantiating the research problem, outlines current trends in the training of future physical education teachers for professional activity in higher education, and characterizes both domestic and international experience in preparing physical education teachers in educational institutions. The second chapter emphasizes the peculiarities of forming communicative competence of future physical education teachers, substantiates the pedagogical conditions for the development of communicative competence of future specialists in physical education during their professional training, and proposes a structural-functional model of such formation. The third chapter reflects the state of development of communicative competence of future physical education specialists in the process of professional training. Particular attention is given to the organization and methodology of conducting the pedagogical experiment, the refinement and description of the results concerning the effectiveness of forming communicative competence of future physical education teachers during professional training, as well as the analysis of these results.

At the same time, a review of the dissertation content makes it possible to state the appropriate level of scientific and practical substantiation of the researched issues and the reliability of the scientific provisions. They are based on the use of effective scientific approaches, pedagogical principles, and result-oriented methods of cognition. In particular, through categorical and conceptual analysis, it was possible to reveal the essential content and general characteristics of the concepts "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”.

To process the empirical indicators of the experimental study, the PhD candidate applied methods of mathematical statistics (Fisher’s F-test) in order to establish relationships between the studied phenomena, numerical (quantitative) dependencies, and to calculate the average results of the formation of communicative competence in future physical education teachers across all components. The informational basis of the research for Liu Han consisted of regulatory and legal acts, materials of pedagogical practice, and scientific publications (monographs, dissertations, collections of scientific-practical conference proceedings, etc.) on the researched issue and related areas. The scope of the studied literature and the applied scientific methods enabled the PhD candidate to address the defined tasks and to obtain original authorial proposals.

An important argument confirming the completeness of the scientific research is the scientific publications on the dissertation topic and the approbation of its results at international and all-Ukrainian scientific-practical conferences. The main provisions and conclusions formulated as a result of the study are reflected in 15 author’s publications, of which 4 present the principal scientific results of the dissertation (all published in Ukrainian peer-reviewed academic journals, Category B), 9 are of an approbation nature, and 2 additionally reflect scientific outcomes of the dissertation. The analysis of the published scientific articles and conference abstracts enables us to state the appropriate completeness in the presentation of scientific positions, conclusions, and recommendations formulated in the dissertation.

The scientific novelty of the obtained results lies in:

- the identification and theoretical substantiation of pedagogical conditions for the formation of communicative competence in future physical education teachers in higher education institutions;
- the development of an effective methodology for implementing pedagogical conditions in the teaching of professional training disciplines;
- the creation of an original program for the formation of communicative competence in bachelor’s students / future teachers in higher education institutions;
- the design of a structural-functional model for the formation of communicative competence in future physical education teachers, presented as a system of strategic, conceptual-methodological, and criteria-diagnostic components.

The results of the research allowed the PhD candidate to take into account the dynamically changing requirements for the development of communicative competence in future physical education teachers in higher education institutions. The findings of the dissertation can be effectively applied in the system of professional training of future teachers in higher education institutions; in the development of educational and methodological support for forming communicative competence among educators; and in the creation of educational components aimed at developing communicative qualities and abilities of future physical education teachers. In the future, Liu Han’s research outcomes may be implemented in teacher professional development courses in general secondary education institutions, subject to adaptation of the developed materials, as well as in the teaching of academic disciplines for future teachers in higher education institutions.

Thus, Liu Han’s dissertation entitled “Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions”, submitted for the degree of Doctor of Philosophy, is a completed scientific study that presents scientifically substantiated results on improving the formation of communicative competence in future physical education specialists in



higher education. Since in terms of both content and formal criteria the dissertation complies with the requirements of regulatory documents, it may be recommended for defence before a one-time specialized academic council for the award of the Doctor of Philosophy degree in specialty 011 Educational, Pedagogical Sciences, field of knowledge 01 Education, Pedagogy.

*4. The reviewers spoke:*

*4.1 Associate Professor of the Department of Educology and Pedagogy, Candidate of Pedagogical Sciences, Associate Professor Oksana Vasylivna Krychkivska.*

Assoc. Prof. O.V. Krychkivska noted that Liu Han's dissertation "Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions" addresses a relevant topic and corresponds to current trends in pedagogical science, which are oriented toward the development of soft skills in teachers, among which communicative competence is fundamental. At the same time, the topic is fully disclosed, properly structured, and meets the established requirements. The PhD candidate thoroughly analyzed domestic and foreign scientific sources on the issue of professional training of future physical education teachers, identified contradictions that complicate the formation of their communicative competence, and clearly defined the scientific problem.

The pedagogical conditions and the structural-functional model of communicative competence formation proposed and theoretically substantiated by Liu Han deserve particular attention, as they are characterized by logical consistency, integrity, and an innovative structure. The dissertation skillfully highlights the refined conceptual-categorical framework of the research and the criteria for assessing the level of competence formation, as well as a set of interrelated methodological approaches (systemic, competence-based, learner-centered, and activity-oriented). The study meaningfully enriches the professional training of teachers in the formation of communicative competence within the context of an interdisciplinary approach. An original Program for the formation of communicative competence has been developed (including an elective course, a system of exercises, mind maps, interaction schemes, etc.), which has been implemented in the educational process of three Ukrainian higher education institutions, thereby demonstrating the practical significance and viability of the research results.

Liu Han has demonstrated the importance of developing professional competences in higher education institutions, with communicative competence-highlighted and thoroughly characterized in her dissertation-occupying a key place among them. The dissertation is distinguished by a significant number of processed scientific and methodological literary sources devoted to the problem of professional training of future physical education teachers.

At the same time, despite the high scientific quality of the dissertation, there are certain shortcomings that require clarification:

1. The dissertation proposes a set of pedagogical conditions for the formation of communicative competence in future physical education teachers; however, their differentiated impact on the training outcomes of students has not been fully analyzed. From the standpoint of analytical pedagogy, it would be advisable to determine the priority factors of influence of each condition on the formation of communicative competence, which would allow the researcher to clearly specify the structure of this influence and to substantiate the effectiveness of pedagogical conditions in practical application.

2. The experimental base could have been expanded, since, in our opinion, the sample size of the study is somewhat limited (59 participants in three higher education institutions at the

formative stage of the research), which somewhat narrows the possibilities of generalizing the obtained results to the entire system of professional training in Ukraine.

3. The researcher involved a significant number of foreign-language sources, yet their analytical potential in the context of forming the theoretical foundations of the research was not fully revealed. Extended citation and cross-cultural comparison could have deepened the theoretical basis of the dissertation.

Assoc. Prof. O.V. Krychkivska emphasized that the above comments do not diminish the overall positive impression of Liu Han's dissertation "Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions", which can be recommended for consideration by the Academic Council and for further defence.

As official opponents, the following are proposed: – Doctor of Pedagogical Sciences, Professor, Dean of the Faculty of Physical Education, Sport and Rehabilitation at Yurii Fedkovych Chernivtsi National University, Yurii Yuriiiovych Moseichuk; – Doctor of Pedagogical Sciences, Professor, Head of the Department of Theory and Methodology of Physical Education and Sport at Zaporizhzhia National University, Anatolii Petrovych Konokh; – Doctor of Pedagogical Sciences, Professor, Head of the Department of Physical Education and Sport at Ivan Franko National University of Lviv, Oksana Vasylivna Shukatka, who are specialists in the subject of the dissertation research and have relevant publications.

#### *4.2 Speeches on the discussed dissertation.*

The following participants took part in the discussion of the dissertation:

1. Professor of the Department of Information and Socio-Cultural Activities, Doctor of Pedagogical Sciences, *Professor Yurii Adamovych Shcherbiak*.

Prof. Y.A. Shcherbiak emphasized that the relevance of Liu Han's dissertation research "Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions" is beyond doubt, since physical education is an integral part of the general culture of society and serves as a component of the fundamental pedagogical system aimed at strengthening health, as well as fostering the harmonious development of physical, moral-volitional, and intellectual qualities of the individual.

According to Y.A. Shcherbiak, familiarization with the dissertation makes it possible to affirm its compliance with the requirements for this type of research work. The PhD candidate has sufficiently processed literary sources. He noted the author's ability to apply research methodology to solve relevant issues, as the dissertation and the presentation of its results clearly demonstrate mastery of research methods and pedagogical techniques, as well as the establishment of interrelations between pedagogical conditions for the formation of communicative competence in future physical education specialists.

The dissertation is written in English with adherence to scientific style; references to primary sources are included, and a significant amount of illustrative material in the form of figures and tables supplements the text and facilitates its comprehension.

The dissertation has been carried out at an appropriate level; it is an independent, systematic, and completed scientific work that possesses both theoretical and practical value. The research aim has been achieved, and the stated objectives have been accomplished.

2. Associate Professor of the Department of Psychology and Social Work, Candidate of Pedagogical Sciences, *Associate Professor Zoriana Ihorivna Krupnyk*.

Assoc. Prof. Z.I. Krupnyk emphasized the relevance of the research topic, the promising nature of its further development, and the importance of studying the level of communicative competence formation in physical education teachers. She highlighted the substantiation of the pedagogical conditions for the formation of communicative competence in future physical education teachers in higher education institutions and the clear structure of the developed structural-functional model of such competence formation. The logic of the author's scientific inquiry and the presentation of its most important results prove that the dissertation can be recommended for defence before a one-time specialized academic council in specialty 011 Educational, Pedagogical Sciences, field of knowledge 01 Education/Pedagogy.

3. Associate Professor of the Department of Foreign Languages and Information and Communication Technologies, Candidate of Pedagogical Sciences, *Associate Professor Mariia Zinoviivna Kuziv*.

Assoc. Prof. M.Z. Kuziv noted that the dissertation contains well-substantiated results, meets all requirements for this type of research, and can be recommended for defence before a one-time specialized academic council in field of knowledge 01 Education/Pedagogy, specialty 011 Educational, Pedagogical Sciences.

4. Associate Professor of the Department of Educology and Pedagogy, Candidate of Pedagogical Sciences, *Associate Professor Oksana Tarasivna Pysarchuk*.

Assoc. Prof. O.T. Pysarchuk stated that Liu Han's dissertation "Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions" is a completed scientific study that contains elements of scientific novelty and has practical significance. The logic of the author's research has led to the creation of an original Program for the formation of communicative competence in students in higher education institutions. Assessing the content of the dissertation, one can note its proper theoretical level and practical value, which are the result of extensive study and critical analysis of a significant body of scientific works devoted to the research problem. In view of the above, Liu Han's dissertation can be recommended for defence before a one-time specialized academic council in field of knowledge 01 Education/Pedagogy, specialty 011 Educational, Pedagogical Sciences.

All speakers emphasized that the following specialists can be recommended as official opponents: Doctor of Pedagogical Sciences, Professor, Dean of the Faculty of Physical Education, Sport and Rehabilitation at Yuriy Fedkovych Chernivtsi National University, Yuriy Yuriiiovych Moseichuk; Doctor of Pedagogical Sciences, Professor, Head of the Department of Theory and Methodology of Physical Education and Sport at Zaporizhzhia National University, Anatolii Petrovych Konokh; and Doctor of Pedagogical Sciences, Professor, Head of the Department of Physical Education and Sport at Ivan Franko National University of Lviv, Oksana Vasylivna Shukatka, who are experts in the subject matter of the dissertation research and have relevant publications.

Based on the results of the discussion, the participants of the meeting

#### **RESOLVED:**

to adopt the conclusion regarding the dissertation of PhD candidate Liu Han entitled "Formation of Communicative Competence of Future Physical Education Teachers in Higher Education Institutions" as one that meets the requirements for dissertations, and to propose that the Academic Council of the University approve the conclusion of the specialized seminar.

## **CONCLUSION**

**on the scientific novelty, theoretical and practical significance of the dissertation results by Liu Han on the topic: “Formation of Communicative Competence in Future Physical Education Teachers in Higher Education Institutions”, submitted for the degree of Doctor of Philosophy in the field of knowledge 01 Education/Pedagogy, specialty 011 Educational, Pedagogical Sciences.**

### **Justification of the Research Topic Selection and Its Connection with the University's Research Plans**

A guiding reference for improving the communicative competence of future physical education teachers is the Standard of Higher Education of Ukraine (specialty 014.11 Secondary Education (Physical Education)), which defines mandatory general competences (such as the ability for interpersonal interaction and teamwork, the ability to communicate with specialists of various levels, and the ability to effectively use information and communication technologies) as well as professional competences (such as the ability of teachers to form and develop students' language and communication skills, to ensure constructive and safe interaction with all participants of the educational process, and to implement subject–subject (equal and learner-centered) interaction with students during classes). These competences for bachelor's degree students in physical education reflect current trends in their training, particularly in the direction of improving communicative knowledge, skills, and abilities of interpersonal communication.

It is important that the outcome of the research effort be the formation of the personality of a physical education teacher with a high level of communicative activity, which significantly increases the effectiveness of teaching and has a positive impact on the comprehensive resolution of pedagogical problems.

The dissertation was carried out in accordance with the research plans of West Ukrainian National University, namely within the framework of the contractual research project “Professional Growth of an Educational Institution Teacher: Fundamental, Theoretical-Technological and Practice-Oriented Aspects” (State Registration No. 0121U110855), in which the methodology of professional growth of specialists in the educational field has been improved.

### **Research Aim, Objectives, and Methods. Object and Subject of the Study**

The aim of the dissertation is to develop, theoretically substantiate, and experimentally verify the effectiveness of the defined pedagogical conditions and the efficiency of the structural-functional model for the formation of communicative competence of future physical education teachers in higher education institutions.

To achieve this aim, the following objectives were set:

- to analyze the features, key conceptual ideas, and current scientific approaches to the problem of forming communicative competence of future physical education teachers in higher education institutions;
- to clarify the components, criteria, indicators, and levels of communicative competence formation in future physical education teachers, and to determine their pedagogical significance;
- to identify and theoretically substantiate pedagogical conditions and to design an effective structural-functional model of communicative competence formation in future physical education teachers in higher education institutions;



– to experimentally verify the effectiveness of the substantiated pedagogical conditions and the structural-functional model of forming communicative competence in future physical education teachers.

**The object** of the research is the professional training of future physical education teachers in higher education institutions.

**The subject** of the research is the pedagogical conditions and the structural-functional model of forming communicative competence of future physical education teachers in higher education institutions.

#### **Scientific Provisions Personally Developed by the PhD Candidate and Their Novelty**

In the dissertation, a new solution to the scientific problem is proposed, which consists in the generalization of theoretical provisions and the development of scientifically substantiated practical results aimed at improving the formation of communicative competence of future physical education teachers in higher education institutions. The main elements of scientific novelty are as follows:

For the first time:

– pedagogical conditions for the formation of communicative competence of future physical education teachers in higher education institutions have been identified and theoretically substantiated (design of an educational environment that provides wide opportunities for developing the communicative activity of each future physical education teacher; implementation of active forms and methods of teaching aimed at deepening and systematizing knowledge on the formation of communicative competence; integration of general and professional competences, including communicative competence, in the context of an interdisciplinary approach to professional training; development of organizational and communicative skills of future physical education teachers);

– an effective methodology for the implementation of pedagogical conditions into the teaching of professional training disciplines has been developed, as well as an original Program for the formation of communicative competence among higher education students;

– a structural-functional model of forming communicative competence in future physical education teachers has been developed, which combines strategic, conceptual-methodological, and criteria-diagnostic components, enabling the consideration of dynamically changing requirements for the formation of communicative competence in future physical education teachers in higher education institutions.

Improved:

– the content and essence of the concepts “professional training of physical education teachers,” “competence of future physical education teachers,” “communicative competence of future physical education teachers,” and “socio-communicative activity of physical education teachers”;

– criteria (motivational, knowledge-based, communicative, and health-preserving) and levels (high, sufficient/optimal, satisfactory/productive, low/basic) for assessing the formation of communicative competence of future physical education teachers in higher education institutions.

Further developed:

– the content of professional training in the context of forming communicative competence of future physical education teachers in higher education institutions, as well as the forms and methods of developing this competence among students of higher education.

**Validity and Reliability of the Scientific Provisions, Conclusions, and Recommendations Submitted for Defence**

The scientific provisions, conclusions, and recommendations are substantiated at an appropriate level, published in peer-reviewed scientific journals, and tested at international and all-Ukrainian scientific-practical conferences. The proper degree of theoretical validity and reliability of the scientific results presented in the dissertation is confirmed by the well-chosen methodological framework of the research and the comprehensiveness of the processed information base.

#### **Practical Significance of the Research. Practical Significance of the Dissertation**

The practical significance of the dissertation lies in the possibility of applying its main results and developments in the professional training of future physical education teachers. An author's Program for the formation of communicative competence in future physical education teachers has been developed and introduced into the educational process of higher education institutions through modifications to the content of certain topics in the disciplines "Theory and Methods of Physical Education", "Theory and Methods of Children's and Youth Sports", and "Professional Mastery (by Professional Orientation)" (specialty 014.11 Secondary Education (Physical Education), bachelor's level), with strengthened interdisciplinary connections between them. In addition, an author's elective course "Development of Communicative Competence of Future Physical Education Teachers" was implemented within the framework of students' independent work, as well as a set of mind maps designed to provide informational support for the study of the discipline "Professional Mastery (by Professional Orientation)" and to schematize intra- and interdisciplinary connections.

#### **Completeness of the Presentation of Dissertation Materials in Publications and the Author's Personal Contribution**

All scientific results, conclusions, and proposals presented in the dissertation and submitted for defence were obtained personally by the author. From the scientific works published in co-authorship, only those ideas and provisions that are the result of the applicant's individual work were included in the dissertation.

The main provisions of the dissertation are reflected in 15 publications by the author (12 single-authored), of which 4 represent the core scientific results of the dissertation (all published in peer-reviewed professional journals of Ukraine, Category "B"), 9 are of an approbation character, and 2 additionally highlight the research outcomes of the dissertation.

The total volume of published works amounts to 3.86 printed sheets, of which 3.46 printed sheets belong personally to the author, including: scientific papers presenting the main research results of the dissertation – 2.51 printed sheets; scientific papers additionally reflecting the research results of the dissertation – 0.95 printed sheets.

#### **List of the Applicant's Publications on the Dissertation Topic**

##### **Scientific works presenting the main scientific results of the dissertation**

1. Rebukha, L., & Liu, H. (2023). Comparative analysis of the physical culture and sports specialists training for the future professional activities in Ukraine and abroad. *Гуманітарні студії: історія і педагогіка*, 2, 102–112. URL: <https://doi.org/10.35774/gsip2023.02.102>
2. Liu, H. (2024). Peculiarities of formation of the future physical education and sports specialists' communicative readiness for professional activity. *Вісник науки та освіти*, 6(24), 417–427. URL: [https://doi.org/10.52058/2786-6165-2024-6\(24\)-417-427](https://doi.org/10.52058/2786-6165-2024-6(24)-417-427)
3. Liu, H. (2024). Training of Future Physical Education and Sports Teachers in Higher Education Institutions: Modern Trends. *Pedagogical Discourse*, 35, 86–91. URL: <https://doi.org/10.31475/ped.dys.2024.35.13>

4. Liu, H. (2024). Pedagogical conditions for forming the readiness of future specialists in physical culture and sports for professional activity. *Proceedings. Series: Pedagogical sciences*, 11, 135–140. URL: [https://doi.org/10.59694/ped\\_sciences.2025.11.135](https://doi.org/10.59694/ped_sciences.2025.11.135)

#### **Scientific works certifying the approbation of the dissertation materials**

1. Liu, H. (2022). Main management activities of teaching institutions in distance learning. *Інновації в освіті: реалії та перспективи розвитку : матеріали III Міжнар. наук.-практ. конф. Тернопіль* (с. 157–162). ЗУНУ.

2. Liu, H. (2022). Sharing method of non-professional sports training information resources based on private cloud. *Інновації в освіті: реалії та перспективи розвитку : матеріали IV Міжнар. наук.-практ. конф. Тернопіль* (66–72). ЗУНУ.

3. Liu, H. (2023). Innovative technologies in education: Application and their significance. *Інновації в освіті: реалії та перспективи розвитку : матеріали V Міжнар. наук.-практ. конф. Тернопіль* (с. 119–121). ЗУНУ.

4. Liu, H. (2024). Modern approaches to the training of physical culture and sports future teachers in higher education. *Актуальні проблеми розвитку педагогічної освіти: інновації, виклики, перспективи: матеріали Міжнар. наук.-практ. конф. Мукачево* (с. 258–259). МДУ.

5. Liu, H. (2024). Essence of the peculiarities of communicative competence of future specialists in physical education and sport. *Трансформаційні процеси соціально-гуманітарної освіти сучасної України в умовах війни: виклики, проблеми та перспективи: матеріали II Міжнар. наук.-практ. конф. Тернопіль* (с. 129–130). ЗУНУ.

6. Liu, H. (2024). Communicative Culture as an Important Component of the Professional Activity of the Future Teacher of Physical Education and Sports. *Інноваційні підходи до розвитку технологій та економіки: матеріали науково-практичної конференції. Свалява* (с. 191–193). ЗУНУ.

7. Liu, H. (2024). The personal and professional development of managers in educational institutions under the background of decentralization. *Розвиток професійної майстерності педагога в умовах нової соціокультурної реальності: матеріали VII Міжнар. наук.-практ. конф. Тернопіль* (с. 336–337). ТОКІППО.

8. Liu, H. (2024). To cultivate the communicative competence of future sports experts in the process of learning in colleges and universities. *Розвиток професійної майстерності педагога в умовах нової соціокультурної реальності: матеріали VII Міжнар. наук.-практ. конф. Тернопіль* (с. 337–339). ТОКІППО.

9. Liu, H. (2024). Cultivation of intercultural communication ability in physical education. *Інноваційні процеси освітньої сфери України та країн Центральної Європи: стан, проблеми і перспективи матеріали Міжнар. наук.-практ. конф. Тернопіль* (с. 162–164). ЗУНУ.

#### **Scientific works additionally reflecting the research results of the dissertation**

1. Zhang, J., Liu, H., & Dai, W. (2024). Physical exercise and positive coping styles of Chinese college students: Psychological resilience as a mediator. *Social Behavior and Personality: an international journal*, 52(5), 13098E–13106E(9). URL: <https://doi.org/10.2224/sbp.13098>

2. Cao, X., & Liu, H. (2024). Preference Evaluation and Recommendation of Athletes for National Traditional Sports Training Using an Intelligent Method Based on Picture Fuzzy Knowledge. *IEEE Access*, 12, 164444–164461. URL: <https://doi.org/10.1109/ACCESS.2024.3490652>

#### **Approbation of the Dissertation Results**

The main results of the research presented in the dissertation were reported, discussed, and received positive evaluation at 9 international and all-Ukrainian scientific-practical conferences. In particular, at the international conferences “Innovations in Education: Realities and Prospects of Development” (Ternopil, 2022–2023), “Current Problems of the Development of Pedagogical Education: Innovations, Challenges, Prospects” (Mukachevo, 2024), “Transformational Processes of Socio-Humanitarian Education in Modern Ukraine under the Conditions of War: Challenges, Problems and Prospects” (Ternopil, 2024), “Development of Teacher’s Professional Mastery in the Context of the New Socio-Cultural Reality” (Ternopil, 2024), “Innovative Processes in the Educational Sphere of Ukraine and Central European Countries: State, Problems and Prospects” (Ternopil, 2024); and at the regional conference “Innovative Approaches to the Development of Technologies and Economy” (Svaliava, 2024).

#### **Evaluation of the Language and Style of the Dissertation**

The content of the dissertation corresponds to the defined research objectives, reveals the topic, and testifies to its integrity and completeness. The dissertation is written in academic English, the author’s style is clearly traced, and the material is presented competently with the use of appropriate scientific and professional terminology.

#### **Compliance of the Dissertation with Regulatory Requirements and Possibility of Submission for Defense**

Taking into account the relevance of the dissertation topic, the validity of the obtained results, the scientific novelty, the theoretical and practical significance of the work, the completeness of the presentation of the dissertation materials in scientific publications, as well as the compliance of the dissertation with the requirements established by the Resolution of the Cabinet of Ministers of Ukraine of January 12, 2022, No. 44 and the Regulations on the Awarding of the Doctor of Philosophy Degree and the Cancellation of the Decision of a One-Time Specialized Academic Council of a Higher Education Institution or Scientific Institution on the Awarding of the Doctor of Philosophy Degree, the specialized seminar recommends the dissertation by Liu Han “Formation of Communicative Competence of Future Physical Education Teachers in Higher Education Institutions”, submitted for the degree of Doctor of Philosophy in specialty 011 Educational, Pedagogical Sciences, field of knowledge 01 Education/Pedagogy, for defense before a one-time specialized academic council.

As a result of the review of Liu Han’s dissertation and the completeness of the publication of the main research results.

#### **Resolved:**

1. To propose to the Academic Council the approval of the following composition of the one-time specialized academic council:

*Chairperson of the one-time specialized academic council:*

Doctor of Pedagogical Sciences, *Professor Olha Mykhailivna Tsaryk*, Professor of the Department of Foreign Languages and Information and Communication Technologies, West Ukrainian National University.

*Reviewer:*

Candidate of Pedagogical Sciences, *Associate Professor Oksana Vasylivna Krychivska*, Associate Professor of the Department of Educology and Pedagogy, West Ukrainian National University.

*Opponents:*



Doctor of Pedagogical Sciences, *Professor Yurii Yuriiovich Moseichuk*, Dean of the Faculty of Physical Education, Sport and Rehabilitation, Yuriy Fedkovych Chernivtsi National University;

Doctor of Pedagogical Sciences, *Professor Anatolii Petrovych Konokh*, Head of the Department of Theory and Methodology of Physical Education and Sport, Zaporizhzhia National University;

Doctor of Pedagogical Sciences, *Professor Oksana Vasylivna Shukatka*, Head of the Department of Physical Education and Sport, Ivan Franko National University of Lviv.

2. To recommend that the newly established one-time specialized academic council accept the dissertation for defense.

**Chairperson of the meeting**

Acting Head of the Department of Educology and Pedagogy,

West Ukrainian National University,

Doctor of Pedagogical Sciences, Professor



**Volodymyr CHAIKA**

