REPORT
about the work of the dissertation council

Dissertation Council in the direction 8D015-Training of teachers in natural sciences (6D011100-Informatics) at the Abai Kazakh National Pedagogical University

1. Data on the number of meetings held

6 meetings were held in the dissertation Council at the Abai Kazakh National Pedagogical University in the direction 8D015-Training of teachers in natural sciences (6D011100-Informatics) in the reporting year (from 01.01.2022 to 31.12.2022).

2. Names of the members of the dissertation Council who attended less than half of the meetings.

There are no council members who attended less than half of the meetings.

3. A list of doctoral students with an indication of the organization of training.

Revshenova Mahabbat Izbasarovna, Abai Kazakh National Pedagogical University;

Zhabayev Ermakhan Khuryshovich, Abai Kazakh National Pedagogical University;

Avdarsol Sailaugul, Abai Kazakh National Pedagogical University.

4. Brief analysis of thesises reviewed by the council during the reporting year, highlighting the following sections:

According to *Revshenova Mahabbat Izbasarovna's* dissertation:

1) analysis of the subject of the reviewed works;

The topic of the dissertation: Development of professional competence of a future computer science teacher in teaching computational informatics.

Specialty: 6D011100-Informatics

Scientific consultants – doctor of pedagogical sciences Kamalova G.B., doctor of pedagogical sciences, professor Kornilov V.S.

The defense took place on July 4, 2022.

New and reliable results were obtained in the work:

- the content of the information and computing competence of the future computer science teacher as one of the structural components of his professional competence is determined;
- the necessity of improving the methods of training future computer science teachers in the field of computational informatics on the basis of a competence-based approach in order to develop their information and computing competence is substantiated;
- a structural and logical model of the development and diagnostics of the information and computing competence of a future computer science teacher in the

process of training in the field of computational informatics has been developed and theoretically substantiated;

- the methodology of training a future computer science teacher in the field of computational informatics has been improved on the basis of a structural and logical model for the development of information and computing competence.

2) the connection of the topics of dissertations with the directions of science development, which were formed by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan in accordance with paragraph 3 of Article 18 of the Law "On Science" and (or) state programs;

Resolution of the Government of the Republic of Kazakhstan. On approval of the National Development Plan of the Republic of Kazakhstan until 2025: approved on February 15, 2018, No. 636, Resolution of the Government of the Republic of Kazakhstan. State Mandatory standard of Secondary education: approved on October 31, 2018, No. 604, Resolution of the Government of the Republic of Kazakhstan. The state mandatory standard of higher education: approved on October 31, 2018, No. 604, Message of the President of the Republic of Kazakhstan Nursultan Nazarbayev to the people of Kazakhstan "New development opportunities in the conditions of the Fourth Industrial Revolution" dated January 10, 2018, Message of Kassym-Jomart Tokayev "Unity of the people and systemic reforms – a solid foundation for the prosperity of the country" dated September 1, 2021.

3) analysis of the level of implementation of the results of dissertations in practice

The proposed method of training a future computer science teacher in the field of computational informatics based on a structural and logical model of the development of information and computing competence can be recommended for use in the educational process of training future computer science teachers in the field of computational informatics for the development of their information and computing competence.

According to Zhabayev Ermakhan Khuryshovich's dissertation:

1) *analysis of the subject of the reviewed works;*

The topic of the dissertation: Methodology of teaching future computer science teachers computer networks based on modeling.

Specialty: 6D011100-Informatics

Scientific consultants – doctor of pedagogical sciences, professor Bidaybekov E.Y., candidate of physics and mathematics sciences Zhanbyrbayev A.B., candidate of pedagogical sciences, acting professor Shekerbekova Sh.T., doctor of physics and mathematics sciences, professor Henner E.K.

The defense took place on November 28, 2022.

New and reliable results were obtained in the work:

- the possibilities of teaching future computer science teachers to computer networks based on network modeling using software environments and augmented reality are identified, the need is determined;

- the structure and content of teaching future computer science teachers to computer networks based on network modeling using software environments and augmented reality have been clarified;

- based on network modeling using Cisco Packet Tracer, NetEmul and augmented reality environments, computer networking training tools for future computer science teachers have been created;

- a methodology has been developed for teaching future computer science teachers computer networks based on network modeling using software environments and augmented reality.

2) the connection of the topics of dissertations with the directions of science development, which were formed by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan in accordance with paragraph 3 of Article 18 of the Law "On Science" and (or) state programs;

Message of the President of the Republic of Kazakhstan N.Nazarbayev to the people of Kazakhstan "New development opportunities in the conditions of the Fourth Industrial Revolution" dated January 10, 2018; State mandatory standards of higher and postgraduate education dated July 20, 2022 No. 2; State mandatory standards of preschool education and training, primary, basic secondary and general secondary, technical and vocational, Post-secondary education dated August 3, 2022 No. 348; Address of the Head of State Kassym-Jomart Tokayev to the people of Kazakhstan "A just state. One nation. Prosperous Society" dated September 1, 2022; Concept of development of the information and communication technologies and digital sphere dated December 30, 2021 No. 961.

3) analysis of the level of implementation of the results of dissertations in practical activities

The electronic manual "Computer networks and Web technologies" for teaching computer networks and the textbook "Laboratory workshop on the discipline Computer networks and Web technologies" have been developed. The textbook and the electronic manual can be used in the training of future computer science teachers, in the teacher training system.

According to *Avdarsol Sailaugul's dissertation*:

1) analysis of the subject of the reviewed works;

The topic of the dissertation: Development of a system for assessing the functional literacy of students in computer science based on a criteria–based approach.

Specialty: 6D011100-Computer Science

Scientific consultants – doctor of pedagogical sciences, professor Sagimbayeva A.E., doctor of pedagogical sciences, professor Zaslavskaya O.Y.

The defense took place on November 28, 2022.

New and reliable results were obtained in the work:

- the features of the application of the criterion approach in assessing the functional literacy of students in computer science are revealed;

- the structural and content scheme of the system for assessing the functional literacy of students based on the criterion approach in computer science has been developed;

- the content of tasks and tasks for the construction of a system for assessing the functional literacy of students in computer science has been selected;

- a system for assessing the functional literacy of students based on a criteria-based approach in computer science has been developed, its influence on the teaching methodology has been substantiated.

2) the connection of the topics of dissertations with the directions of science development, which were formed by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan in accordance with paragraph 3 of Article 18 of the Law "On Science" and (or) state programs;

The National Action Plan for the Development of functional literacy of schoolchildren for 2012-2016 (Order No. 832 of June 25, 2012). A standard curriculum for updated content on the subject of "Informatics" for grades 5-9 at the level of basic secondary education (Order No. 334 of July 26, 2019). The State mandatory standard of preschool education and training, primary, basic secondary, general secondary, technical and vocational, post-secondary education (Order No. 348 of August 3, 2022). On approval of the criteria for assessing students' knowledge (Order No. 52 of January 21, 2016).

3) analysis of the level of implementation of the results of dissertations in practice

The developed educational and methodological manual "Tasks for assessing the functional literacy of students in computer science", consisting of a system of level tasks for organizing the assessment of functional literacy of students based on a criterion approach in computer science can be used by computer science teachers of general education schools and in the teacher training system.

5. Analysis of the work of official reviewers (with examples of the most substandard reviews).

The reviewers were scientists who have made contributions in the fields of computer science and informatization of education.

Information on the reviewers of *M.I. Revshenova's* dissertation:

Takir Ospanovich Balykbayev - doctor of pedagogical sciences, Director of the Central Asian Regional Glaciological Center under the auspices of UNESCO, Almaty, Kazakhstan (specialty code 13.00.02; 13.00.01);

Tuenbayeva Kalima Toleubaevna - candidate of pedagogical sciences, Associate Professor, Al-Farabi Kazakh National University, Almaty, Kazakhstan (specialty code 13.00.02).

Information on the reviewers of *E.H.Zhabaev's* dissertation:

Tazhigulova Almira Izbasarovna - doctor of pedagogical sciences, associate professor, "Scientific Center of Informatization" (SCI), Almaty, Kazakhstan (specialty code 13.00.02);

Nugmanova Salima Avaskanovna - candidate of pedagogical sciences, Al-Farabi Kazakh National University, Almaty, Kazakhstan (specialty code 13.00.02).

Information on the reviewers of *S.Avdarsol's* dissertation:

Tokzhigitova Nurgul Kairbayevna - PhD, Toraigyrov University, Pavlodar, Kazakhstan (specialty code 6D011100-Informatics);

Gulzhan Zholaushievna Niyazova - Candidate of Pedagogical Sciences, Associate Professor, Khoja Ahmed Yasawi International Kazakh-Turkish University, Kentau, Kazakhstan (specialty code 13.00.02);

6. Proposals for further improvement of the system of training scientific personnel.

- graduating departments that send dissertations for defense should pay special attention to the quality of research work and the documents necessary for defense.

7. The number of dissertations for the degrees of Doctor of Philosophy (PhD), doctor by profile in the context of specialties (areas of training):

	6D011100-Informatics
Dissertations accepted for defense	3
Dissertations accepted for defense (including doctoral students from other universities);	-
Dissertations withdrawn from consideration (including doctoral students from other universities)	-
Dissertations that received negative reviews from reviewers (including doctoral students from other universities)	-
Dissertations with a negative decision based on the results of the defense (including doctoral students from other universities)	-

Chairman of the dissertation council _____ Bidaibekov Y.
(signature, surname and initials)

Academic secretary of the dissertation council _____ Sagimbayeva A.E.
(signature, surname and initials)

РАСТАЙМЫН: «Абай атындағы ҚазҰПУ» КЕАҚ КАДР САЯСАТЫ БӨЛІМІНІҢ ЖЕТЕКШІСІ
ЗАВЕРЯЮ: РУКОВОДИТЕЛЯ ОТДЕЛА КАДРОВОЙ ПОЛИТИКИ НАО «КазНПУ им Абая»
ҚОЛЫ ПОДПИСЬ

"30" December 2022