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Formation of future foreign language teachers' research competence in the conditions of a university

The article presents an experimental analysis of the formation of research competence of future foreign language teachers. The article discusses the importance of research competence and its formation among students of a pedagogical profile. Acquisition of research competence is the main engine of modernization of modern education in the twenty-first century; therefore, higher education should be oriented towards the formation of vital competencies of future competitive professionals. The article mentioned the strategy "Kazakhstan – 2050", where its goal is the development of competitive specialists with modern competencies, including research competence. This article reveals the components of research competence, which are a constituent in the formation of research competence of future foreign language teachers. The purpose of the research in this article is the development of future foreign teachers' research competence in the conditions of a university. The article describes the phased formation of research competence using various pedagogical methods in the conditions of a university. Criteria for evaluating the formation of future foreign language teachers' research competence in higher educational institutions were determined in the article.

Keywords: competence, research competence, motivational-personal component, motivation, theoretical-cognitive component, structural design component, pedagogical methods, formation of research competence.

Introduction

The strategy Kazakhstan – 2050 is focused on the development of competitive specialists who have a certain range of competencies such as communicative, professional, research, etc., which allows a young specialist to adapt to a new socio-economic environment. It should be noted that N.A. Nazarbayev's message to the people of Kazakhstan sets the main task "to become one of the 50 most competitive countries in the world" [1].

The acquisition of new competencies is the main engine of modernization of modern education in the twenty-first century; therefore, higher education should focus on the formation of vital competencies of future competitive professionals.

To achieve this goal in the conditions of modernization of education, it is necessary to implement new methods, technologies, models, etc. to develop the scientific potential of future teachers of a foreign language, who will be able to independently analyze, synthesize and compare information, choose acute problems in the field of education and find solutions to these problems, develop scientific thinking in themselves and the younger generation. To embody this goal, higher educational institutions are faced with the task of developing research competence among future teachers. The formation of research competence among future foreign language teachers is an urgent problem, since a foreign language specialist must be able to analyze and process foreign language information, take the experience of foreign researchers, participate in various international conferences that will increase the research potential of foreign language teachers. Information in English allows you to broaden your horizons and replenish your knowledge in any field. In the world of globalization, a foreign language occupies a special place in the process of exchanging knowledge and information, thus future teachers of a foreign language have more opportunities to engage in scientific activities using foreign sources in their research work.

Literature Review

At present, the development of research competence among teachers stands as a crucial issue in Europe, and concerted efforts are being made to enhance this aspect. The European Commission advocates for an interconnection between teachers' education and research, emphasizing the need for teachers to critically analyze scientific findings and apply acquired knowledge in practical settings [2].

In the 1960s, the renowned Finnish educator M. Koskenniemi articulated the concept of a teacher who engages in didactic thinking and reflection, highlighting the necessity for research competence in the execution of professional duties [3].

C.M. Clark and P.L. Peterson posit that research competence is rooted in the cognitive processes of teachers, shaping their scientific worldview [4].

According to American scholars S. Whiddett and S. Hollyforde, research competence constitutes an essential element of competency-based teacher education. It encompasses the knowledge, skills, and values that a teacher-researcher must proficiently demonstrate throughout the completion of a teacher education program [5].

In alignment with the perspective of Russian researcher O.E. Lebedev, research competence represents the amalgamation of guiding principles for delineating specific educational goals and processes, playing a pivotal role in summarizing educational outcomes [6].

A.L. Andreev asserted that the competence for research involves the ability to independently analyze, select, apply gathered data, and utilize them in diverse life situations [7].

A.V. Khutorskaia proposed that research competence entails the simultaneous acquisition of both research knowledge and skills in the process of cognition, a capacity that should be cultivated across all educational levels [8].

T.M. Talmanova viewed a teacher's research competence as the dynamic development of a personality, prepared for scientific, pedagogical, experimental, design, and practical activities within the professional sphere of life [9].

In Kazakhstan, Z.A. Isaeva, S.S. Kunanbayeva, and Sh.T. Taubaeva addressed the formation of teachers' research competence in their scholarly contributions.

S.S. Kunanbayeva perceived the development of teachers' competence as a catalyst for the modernization of education, asserting that higher education should instill essential competences (including research, communicative, professional, etc.) in future specialists [1; 124].

Z.A. Isaeva introduced the concept of progressive cultivation of a professional research mindset among aspiring educators within the higher education system. This concept emphasizes the acquisition of scientific research methodologies and the enhancement of creative and critical thinking [10].

Sh.T. Taubaeva delved into the idea of research culture, portraying it as an innovative and didactic undertaking for teachers within the comprehensive pedagogical framework of general education schools [11].

Examining the aforementioned definitions, it can be affirmed that a teacher's research competence encompasses the adeptness in research skills, including search activities, the capacity to analyze and synthesize information, address contemporary scientific issues in the field of education, possess both theoretical and practical knowledge and instill a passion for future generations' engagement with science.

Compiling the findings articulated in academic literature, we posit that research competence constitutes a valuable aspect of the pedagogical process, elucidating the teacher's inclination toward research in resolving educational challenges. The research competence of prospective foreign language teachers manifests through their theoretical and practical research knowledge and skills, wherein they assimilate foreign advanced experiences and creatively apply their expertise in professional endeavors. These factors underscore the significance of establishing favorable conditions for fostering research competence at the university level.

Methods and materials (Experimental)

In the course of the research, a diverse set of research methods was employed to gather comprehensive data. These methods encompassed both qualitative and quantitative approaches to ensure a holistic understanding of the research topic. Below is an overview of the research methods utilized:

- analysis of foreign and domestic literature: to establish a theoretical framework, identify gaps in existing knowledge about formation of research competence;
- interview: to gain firsthand perspectives, level of motivation, experiences and insights from participants related to conducting research;
- survey: to obtain statistical information and broader trends from a diverse sample of participants;
- discussion: to encourage collaborative idea generation, gather qualitative insights, and promote interactive engagement;
- conversation: to supplement formal data collection with spontaneous and candid participant perspectives;

- brainstorming: to foster innovative thinking, explore alternative perspectives, and identify potential avenues for research;
- project method: to encourage practical learning and activities, application of theoretical knowledge, formation of research skills and collaboration among participants;
- interactive method: to utilize interactive tools and activities in the forms of games to engage participants actively in research process;
- problem-based teaching method: to integrate research-oriented problem-solving into the learning process and promote critical thinking and research skills.

The combination of these diverse research methods aimed to triangulate data, ensuring a more robust and nuanced understanding of the research topic. This comprehensive approach facilitated the exploration of both qualitative and quantitative aspects, enriching the overall research findings.

Results and Discussion

Many scientists (S. Whiddett, S. Hollyforde, A.V. Khutorskaia, Z.A. Isaeva, etc.) determined numerous structural components of research competence, however we relied on the classification of T.M. Talmanova, who identified the following components:

- 1) motivational-personal component: understanding the value of research, the presence of internal and external motivation to solve research problems;
- 2) theoretical-cognitive component: acquisition of theoretical knowledge and collection of materials for the implementation of the practical part of the study;
- 3) structural design component: solving a specific research problem within the framework of practical activities and creating a new product using the collected materials [9; 45].

The choice of these components is determined by their interrelation and interdependence. The motivational component creates the basis for starting research work, the theoretical-cognitive component provides tools and the structural design component directs the student's actions to create a new product based on the knowledge gained. This integrated approach contributes to the effective development of research competence.

To create certain conditions at a university for the formation of research competence on the basis of its components, we have applied a student-centered approach. The student-centered approach is the most significant principle of psychological and pedagogical science, which provides the creation of an active educational environment, takes into account the physiological peculiarities of students and determines the position of the child in the educational process [12].

At the initial stage of the research, a survey method was used to determine the quality of the conditions created at the lessons for research activities. According to the results of the interview, it was found that the majority (85%) of the student respondents is not interested in research activities and any projects, educational-cases, debates, etc. were not conducted.

Having analyzed the state of teaching a foreign language, we consider the creation of conditions at the university using a student-centered approach for the development of research competence among language students. This can be achieved with the maximum optimization of the educational process by making certain changes in the organization of teaching. For obtaining these purposes, a system of didactic units was developed in language teaching.

In order to form the motivation of university students to be engaged in science, it is essential to use the motivational-personal component of research competence.

The motivational-personal component of research competence is the meaning of the researcher, which encourages him for further research. The motive of the researcher is the main driving force for the advancement of science; in order to induce this motive, it is necessary to develop motivation for research from school years [13].

Motivation is divided into two main types:

1. Internal motivation is characterized by an internal desire to explore the world, the surrounding reality and solve relevant issues of science on their own;
2. External motivation is outside factors that move the researcher to analyze and explore problems in the surrounding reality [14].

However, internal motivation develops through external factors (with the help of a teacher, a set of exercises, methods, etc.).

The third-year students of the specialty "Foreign language: two foreign languages" were given the topic "Main problems of education in the 21st century and ways of solving", where students had to discuss this topic,

generate ideas and find solutions. The number of 3rd year students was 35 people. Students identified the following problems of education in the 21st century:

- 1) The problem of motivation among students;
- 2) Pros and cons of online learning;
- 3) Working with hyperactive and passive students;
- 4) The problem of scarcity of teaching staff in educational institutions;
- 5) Non-distribution of students by language level, etc.

This task was combined using two methods: brainstorming and problem-based methods.

The problem-based teaching method develops not only critical thinking, but also the motivation of students to work with research. The teacher creates problem situations, where students should find their solutions.

The brainstorming method denotes generation of ideas that are given an issue [15]. This method develops critical thinking, creativity and activity of students.

Using aforementioned problems of education, the following topic of the debate was selected by students “The advantages and disadvantages of online learning”.

Debate is one of the forms of intellectual games that have a clear and well-developed structure. Participants of the debate discuss relevant issues, exchange with opinions and experiences, etc. The purpose of the debate is to form a definite opinion among the participants in the problem.

It should be mentioned that students prepared for the debate well and provided positive feedback about it.

“I liked the debate very much, during the debate I was finally able to express my opinion about the form of education (online or offline)” — Zhaniya, 3rd year student.

“During the debate, we put forward our preferences, identified the pros and cons of online learning” — Salima, 3rd year student.

“I was able to talk about the main difficulties of online learning that we had in the 2nd year of study” — Zhandos, 3rd year student.

“The debate allowed me to discover new sides of me. I used to be very shy to express my opinion. During the debate, I finally got over my fear of speaking in front of an audience” — Akerke, 3rd year student.

Analyzing the above reviews, we can conclude that organization of a debate on a current educational issue helps students discover a new side of personality and motivate them to further explore relevant problems in the field of education.

The students chose the next topic of debate on their own, which is one of the important topics of teaching a foreign language: “The problem of motivation among students”.

One of the most common methods for fulfilling the motivational-personal component of research competence in students is the use of role-playing games, where each participant of the game is given a specific role and tasks which they must cope.

A role-playing game was held among the 3rd year students of the specialty “Foreign Language: Two Foreign Languages”, where the students were assigned the role of a school principal, a manager of scientific and educational work, a teacher, technical staffs, students, etc.

The task of each participant was to analyze the scientific and professional activities of the school staff and organize the educational process.

After conducting the role-playing game, the students were introduced to the basic activities and documents of the school staff. We organized the educational process and students realized the importance of each person in the school.

Conversation is a method of verbal discussion, which is the most common method in teaching. Its task is to update the knowledge of students with the help of purposeful and skillful posed questions and achieve assimilation of new knowledge through independent reflection and generalization of mental operations [16].

A conversation between university professors and students was conducted in the faculty of foreign languages of Karaganda Buketov University, where professors and doctors of science shared their scientific experience and discussed the following questions with students:

- 1) What is science? The purpose of science, the tasks of science;
- 2) What is a subject, object, research hypothesis?
- 3) Classification of sciences;
- 4) Requirements to the researcher and research, etc.

The discussion of above questions was conducted in a friendly atmosphere.

By creating external conditions for motivation, we encourage future foreign language teachers to develop an internal incentive to make research.

The theoretical-cognitive component of research competence is one of the important components for future research. In order to start any scientific research, it is essential to have basic or fundamental knowledge on the topic. At the beginning of the study, it is necessary to analyze the philosophical, psychological, pedagogical and methodological literature, study the scientific periodicals on the research topic, make a logical and methodological analysis of the basic concepts and systematize knowledge in theoretical literature [17]. Theoretical knowledge expands the cognitive effectiveness of a person and forms a scientific worldview. In other words, with the help of theoretical research, the researcher develops a scientific worldview and ideas for the practical implementation of the project.

At this stage of the formation of research competence, students are given various articles for analysis:

- 1) Determine the topic/problem of the article;
- 2) Read the text and determine whether the indicated questions are covered in it or not;
- 3) Find in the article the main argument in favor of the title;
- 4) Read two texts on the same topic, name the discrepancy in content;
- 5) Find the introduction, research methods, results and conclusion in the article;
- 6) Find paragraphs on the specified topic;
- 7) Find in the article the facts that the author refers to as positive / negative;
- 10) Plan the above articles;
- 11) Express your opinion about the content of the text.
- 12) Define article styles;
- 13) Determine the main idea of the text by choosing one of the options;
- 14) Choose from articles 3-4 sentences that convey the main events;
- 15) Find the main and secondary information in the text.

These tasks help the young researcher to do independent search work, compress information, find the features of the text and its style, analyze the text, read texts on research topics on their own, etc.

From the previous experience, students learned to independently select relevant topics of education and work with literature.

After determining the topic and scientific apparatus, young researchers should draw up a plan and according to the plan; collect theoretical research material using the following methods: theoretical analysis of psychological, pedagogical, linguodidactic literature on the research topic, theoretical generalization, study and analysis of pedagogical experience, collection empirical material on the problem under study, etc.

The structural design component allows predicting the results of scientific research or scientific research work of students, schoolchildren, researchers, etc. A teacher-researcher must determine the forms, methods, goals and objectives of research activities [18].

For the formation of research competence on the basis of the constructive design component, we applied the project method. The project method is a more independent activity that is organized with the help of a teacher or supervisor. This method allows students to go beyond the classroom and solve problems on their own. At the initial stage of the study, it is recommended to carry out group work, distributing the role of each project participant. Participants of the project must choose the problem of interest and find solutions themselves. The task of the supervisor is to explain the conceptual apparatus of future research and direct the scientific potential of research students in the right direction.

Creating special conditions at university on the basis of the components of research competence, basic, educational and research skills of students were formed.

The basic skills include analysis and synthesis of various scientific literatures, assessment of oneself and others, systematization of theoretical material, etc.

Educational skills consist of the ability to compare, interpret findings and results, analyze research methods, work done, etc.

Research skills are formulating a problem, a detailed analysis of the problem, formulating a hypothesis, finding ways to solve a problem, etc.

Thus, we can draw the following conclusions that the needs of society and education are directly related to the formation of the research competence of future foreign language teachers, which will guide the growing generation to a scientific direction. To assess the formation of the student's research competencies, we have created criteria (Table).

Gnostic criterion reflects the theoretical side of students' learning, which corresponds to the theoretical-cognitive component of research competence. The motivational-target criterion takes into account the motives for teaching students in the course of the educational process, which corresponds to the motivational-personal component of research competence. The activity criterion reveals the practical side of students' learning, which corresponds to each component of research competence.

T a b l e

Criteria for assessing the formation of students' research competence

Components of Research Competence	Methods	Criteria	Characteristics	Points
Motivational-personal component	survey	Gnostic criterion	Theoretical knowledge of the student, full assimilation of the material.	10
	conversation	Motivational-target criteria	Student's situational interest in research activities with a predominance of motives for external stimulation.	10
	brainstorming	Activity criterion	The level is characterized by the assimilation by the student of research skills.	10
Total:				30
Theoretical-cognitive component	analysis of literature	Gnostic criterion	Theoretical knowledge of the student is distinguished by awareness and generalization.	10
	interactive method	Motivational-target criterion	Personal attitudes and value orientations in the research field are stable, a conscious understanding of the need to develop own research skills.	10
	problem-based teaching	Activity criterion	A system of student research skills has been formed, which basically ensures the implementation of appropriate actions in fulfilling the established research goals and objectives.	10
Total:				30
Structural design component	analysis of literature	Gnostic criterion	Theoretical knowledge of a student is distinguished by awareness, generalization and breadth of transfer.	10
	discussion	Motivational-target criterion	High internal need, awareness and desire to carry out research activities.	10
	project method	Activity criterion	Research skills are steadily formed, the system includes defining the goals and objectives of the study, processing and analyzing the results of the experiment and presenting them in a scientific form	10
Total:				30

Using various components of research competence, we have identified the following results of students in the formation of research competence (Fig.).

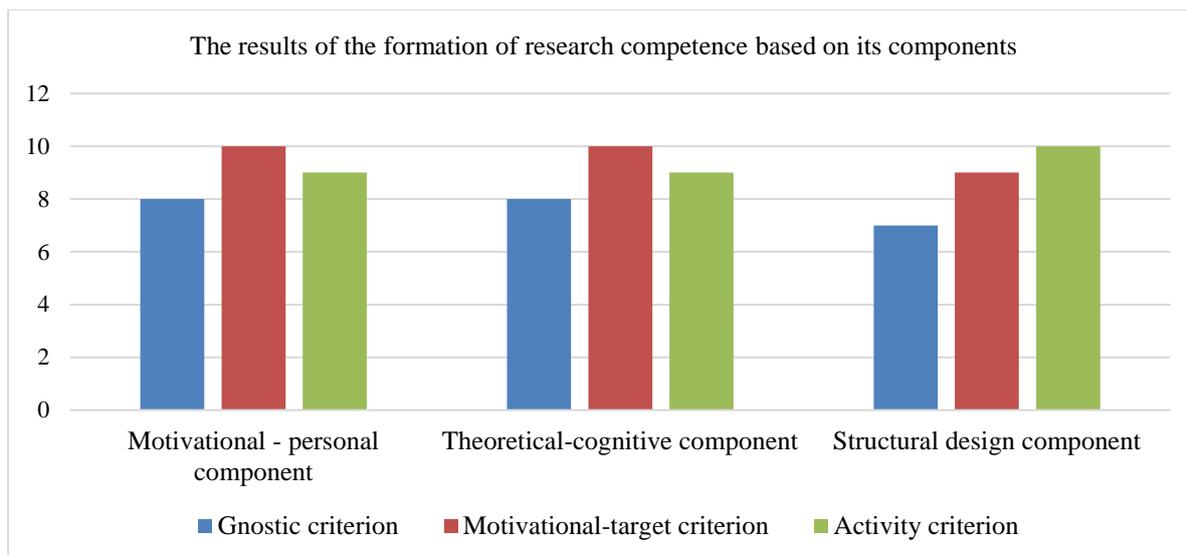


Figure. Diagram of the results of the formation of research competence based on its components

According to Figure 1, we can observe points of the formation of research competence which have increased on the basis of its components. The number of participants in the experiment was 35. Corresponding to the diagram, it can be seen that the motivational-target criteria is high in all components due to creating certain conditions at the university that were reached using various pedagogical methods. It should be noted that gnostic criteria in research competencies remained averagely static, this result can be approved due to the fact that the selection of the necessary material was complicated in the flow of information, however, thanks to increasing motivation, the students' activity reached a maximum point from 8 to 10 (Fig.).

Conclusions

The conducted analysis of the main trends in the development of research activities of university students made it possible to determine the integrity of the entire research problem and identified the main difficulties of students in the implementation of research activities because of the scarcity of conditions for organizing research activities at the university.

We can deduce that the solution of the indicated problems is possible in the following university conditions:

- individual approach to scientific interests and abilities of students;
- introduction into the educational process of various forms of organization of research activities at the lessons;
- selection and support of gifted students;
- creating opportunities for student publications in the near and far abroad;
- formation of student scientific and educational structures that unite teachers, specialists in the field of education, young scientists and students.

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М.М. Момбекова

Жоғары оқу орны жағдайында болашақ шетел тілі мұғалімдерінің зерттеу құзыреттілігін қалыптастыру

Мақалада болашақ шет тілі мұғалімдерінің зерттеушілік құзыреттілігін қалыптастырудың эксперименттік талдауы берілген. Автор зерттеушілік құзыреттіліктің маңыздылығы және оны педагогикалық бейіндегі студенттер арасында қалыптастыруды қарастырған. Ғылыми-зерттеу құзыреттілігін меңгеру — ХХІ ғасырдағы заманауи білім беруді жаңғыртудың негізгі шарты, сондықтан жоғары білім болашақ бәсекеге қабілетті мамандардың өмірлік маңызды құзыреттерін қалыптастыруға бағытталуы керек. Сонымен қатар «Қазақстан — 2050» стратегиясында көрсетілген мақсаттарға сәйкес, қазіргі кезде заманауи құзыреттерге, соның ішінде ғылыми-зерттеу құзыретіне ие бәсекеге қабілетті мамандарды дайындау маңызды екендігі айтылады. Болашақ шетел тілі мұғалімдерінің зерттеушілік құзыреттілігін қалыптастырудың негізі болып табылатын зерттеу құзыреттілігінің құрамдас бөліктері анықталған. Зерттеудің мақсаты: жоғары оқу орны жағдайында болашақ шет тілі мұғалімдерінің ғылыми-зерттеу құзыреттілігін қалыптастыруды дамыту. Мақалада университет жағдайында әртүрлі педагогикалық әдістерді қолдану арқылы зерттеу құзыреттілігін кезең-кезеңімен қалыптастыру жан-жақты сипатталған. Зерттеу барысында жоғары оқу орындарында болашақ шетел тілі мұғалімдерінің зерттеушілік құзыреттілігін қалыптастыруды бағалау критерийлері де анықталды.

Кілт сөздер: құзыреттілік, зерттеушілік құзыреттілік, мотивациялық-тұлғалық компонент, мотивация, теориялық-танымдық компонент, конструктивті-жобалық компонент, педагогикалық әдістер, зерттеушілік құзыреттілікті қалыптастыру.

М.М. Момбекова

Формирование исследовательской компетенции у будущих учителей иностранного языка в условиях вуза

В статье представлен экспериментальный анализ по формированию исследовательской компетенции у будущих учителей иностранного языка. Автором рассмотрена значимость исследовательской компетенции у студентов педагогического профиля. Приобретение исследовательской компетенции является основным двигателем модернизации современного образования в ХХІ веке, в связи с этим высшее образование должно ориентироваться на формирование жизненно важных компетенций будущих конкурентоспособных специалистов. Кроме того, была упомянута Стратегия «Казахстан–2050», где целью является развитие конкурентоспособных специалистов, имеющих современные компетенции, в том числе исследовательские компетенции. В работе охарактеризованы компоненты исследовательской компетенции, которые являются составляющей при формировании исследовательской компетенции у

будущих учителей иностранного языка. Цель исследования — формирование исследовательских компетенций у будущих учителей английского языка в условиях вуза. Подробно описано поэтапное формирование исследовательских компетенций с использованием различных педагогических методов в условиях университета. В ходе исследования были определены критерии оценивания формирования исследовательской компетенции у студентов языкового профиля обучения в высшем учебном заведении.

Ключевые слова: компетенция, исследовательская компетенция, мотивационно-личностный компонент, мотивация, теоретико-познавательный компонент, конструктивно-проектировочный компонент, педагогические методы, формирование исследовательской компетенции.

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