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Development of future foreign language teachers' research skills through organizing extracurricular classes at the university

The article analyzes the problem of enhancing research skills and focuses on development of methodological, creative and independent research skills. The central aspect of this study is the use of educational research to develop students' research skills, where we organized extracurricular classes at the Faculty of Foreign Languages of Karaganda Buketov University. Our study begins with an analysis of the impact of educational research on the development of research skills that goes beyond standard classroom teaching. This article explores in details how educational research conducted outside the classroom can successfully contribute to the development of research skills that are essential for future language teachers. The aim of the study is to develop students' research skills, which will have a positive impact on the professional development of future language teachers. The research findings presented in this article offer valuable information for educational institutions seeking to improve their teacher preparation programs and lay the foundation for preparing a new generation of English language teachers who possess research skills. We emphasized the importance of conducting educational research in the form of extracurricular activities at the university, which form and develop research skills for potential foreign language teachers.

Keywords: research skills, educational research, research competence, extracurricular classes, methodological skills, creative skills, independent skills, foreign language teachers, teacher-researcher, modernization of education.

Introduction

The State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020–2025 is focused on increasing the competitiveness of Kazakhstani education and science [1]. The goal of this program is the modernization of education and science in the Republic of Kazakhstan, where education should be aimed not only at the acquisition of knowledge, but also at the development of research and cognitive skills.

To implement this state program, educational institutions are faced with the task of developing research skills of future foreign language teachers who will be able to apply their acquired knowledge, skills and abilities in research and direct the younger generation to research activities.

The development of research skills of future foreign language teachers at universities is an urgent problem in education in general. According to the law on education of the Republic of Kazakhstan dated January 23, 2012, No. 148, in order to obtain the category “teacher-researcher”, teachers must conduct research and contribute to the development of education [2]. It means that for organizing research foreign language teacher must possess research skills.

As education in the country undergoes modernization, it is essential to equip teachers with the necessary skills not only to impart knowledge but also to engage in research activities. This is particularly crucial in light of the legal requirement for teachers to possess research skills to conduct research and contribute to the advancement of education. It is worth highlighting that the main advantage of developing research skills among foreign language students is the use of English to obtain information from various foreign sources for use in research work. By fostering research skills among future teachers through extracurricular activities at the university level, we can ensure that they are well-prepared to meet the demands of modern education and contribute meaningfully to the development of the field. All these mentioned make our research topic relevant for investigating in this article. Consequently, the aim of our study is to boost research skills of potential foreign language teachers by creating conditions at the university in the form of extracurricular classes.

The concept of “research skills” which have been studied by many scientists, has different interpretations.

According to D.H. Pritchard research skills are characterized by a rational vision of the problem, putting forward a hypothesis to solve the problem, the ability to characterize concepts, drawing conclusions, using original ideas, applying various scientific methods, such as analysis, synthesis, induction, deduction, generalization, comparison, experiment, etc. [3].

A. Mcmaugh considered “research skills” as the implementation of intellectual and empirical actions that contribute to the assimilation of certain knowledge for conducting research [4].

S.S. Kunanbaeva suggested the following definition: “research skills are the mental, logical and practical actions of an individual that are performed during research” [5].

Sh.T. Taubaeva understood research skills as acquired skills that are formed by studying methodology, techniques, literature on the research topic [6].

A.P. Gladkova determined three groups of research skills:

- 1) organizational and practical skills imply organizing research activities;
- 2) searching skills consist of selection of various methods, establishing cause-and-effect relationships between phenomena, finding different ways to solve a problem, etc.;
- 3) information skills include working with scientific and methodological literature, abilities to analyze the information received, distinguish between concepts and terms, be able to summarize data, etc. [7].

T.I. Erofeeva identified the following groups of research skills:

- 1) predictive skills presuppose the ability to make a forecast of one’s own research activities;
- 2) management skills include the ability to rationally use time and resources to implement the research process;
- 3) applied skills involve applying research results in practice [8].

V.I Zagvyazinsky identified the following groups of research skills:

- 1) reflexive skills are understanding the value of the tasks;
- 2) searching skills are characterized by searching for information and finding several options for answers to a problem;
- 3) independent skills are independent work with the literature, analyze the data;
- 4) communicative skills are the ability to ask questions of about research, initiate and enter into dialogue, find a compromise, interview, etc. [9]

According to our opinion, research skills are a combination of such methodological, creative and independent research skills:

- skills to solve a problem independently;
- skills to set the right research objectives;
- skills to use various methods;
- skills to formulate a hypothesis and draw up a program of further actions in the study;
- skills to rationally use research methodology;
- skills to find a creative solution to a research problem;
- skills to conduct an experiment and statically process research results;
- skills to prepare and present scientific reports and presentations, etc.

Research skills are developed only through fulfilling research activities. Providing students with special knowledge, as well as developing their research skills and abilities are necessary for research activities; and it is considered to be one of the main practical tasks of modern education. That’s why educational institutions should direct students to conduct research work, where young researchers will be able to develop their research skills and abilities.

Methods and materials

In order to develop students' research skills, we have organized extracurricular classes for conducting educational research at the Faculty of Foreign Languages of Karaganda Buketov University. The number of 3rd-year students attending extracurricular classes was 35.

The purpose of organization of extracurricular classes is development of research skills and scientific thinking through the organization of educational research activities in pedagogical conditions of the university.

The following categories of research skills were defined by use such as:

- 1) methodological skills consist of skills in planning and designing research, collecting and processing data, analyzing results and formulating conclusions;
- 2) creative research skills are conceptualizing innovative research ideas and implement them in practical research;
- 3) independent research skills are abilities to independently initiate and drive the research process, from defining the research problem to disseminating results.

In order to enhance methodological skills, we fulfill knowledge of fundamentals of research, where students were introduced with the steps of organizing it:

- 1) formulation of the research topic;
- 2) research problem statement;
- 3) determination of aim, objectives, hypothesis, object and subject of research;
- 5) drawing up a work plan;
- 6) study of literature on the research topic;
- 7) looking for a practical solution of the problem;
- 8) conducting an experiment;
- 9) drawing conclusions;
- 10) scientific presentation of research materials, etc. [7; 134].

Choosing research topic demands using individual method of teaching which help students to select the research topic corresponding to their interests. Consequently, the teacher must ensure that the research topic is feasible and intriguing, as a failure in research can cancel out previous achievements. The individual method in choosing research topic provides the creation of the active educational environment and takes into account the physiological peculiarities and interests of students and determines the position of the child in the educational process [4; 45].

Students were offered tasks to figure out a research problem which had a practical application. The most significant thing is to analyze the issue from different points of view. It allows to find out something which was hidden from others. This task was based on a problem-based teaching method, where students learned to find a solution for the issue.

Once a problem is identified, a solution must be sought through setting the aim, objectives, hypothesis, object and subject of research. The hypothesis is considered as a possible solution to a problem that should be in correspondence with the aim of the study. This process has to be examined in research and it demands critical and creative thinking.

Drawing up a plan of the future study is the most significant step in conducting research, where young researcher should know how to implement own research step by step under teacher's guidance.

For collecting data on given research topic we applied analysis, synthesis and generalization and questioning methods. During extracurricular classes students learned to apply the methods of research for collecting and processing information. The collected data was systemized in the form of a diagram or brief notes.

After reading, analyzing and summarizing the collected information, young researchers made reports. The presentation of reports was followed by a discussion where students had opportunities to interrogate each other on the provided literature review on the research topic. So, participants of extracurricular classes learned to gather, process, convey and present data in a creative way.

Educational research was conducted under the teacher's leadership and guidance, where he directed a scientific potential of students and found out mistakes during implementation of the research tasks. It should be noted that pedagogical guidance must be maintained at all stages of scientific work, since it is crucial to analyze students' research activities until the end of extracurricular classes. All other tasks related to educational research had to be completed by students on their own. The purpose of educational research is to assist students to fulfill own scientific research and form methodological skills.

In order to boost creative skills, a debate was organized by us in order to find ideas for research topics and it was organized every week on students given topics. So as to implement debates a brainstorming method was applied. The brainstorming method denotes generation of ideas on the given issue [10]. This method develops critical thinking, creativity and activity of students.

In addition, to find a solution for practical implementation of research topics a project method was exploited, where students were supposed to make a project work. The project method is a more self-directed activity that is planned with the assistance of an instructor or supervisor. This method allows pupils to solve problems independently outside of the classroom. At the beginning of the study, it is recommended to carry out a group work with participants whose interests coincide. Participants of the project must identify an issue

and solve it themselves. The supervisor's role is to explain the conceptual framework of future research and to guide the scientific potential of research students in the proper direction.

In order to implement the project students used various methods such as survey, interview, discussion, experiment, etc. These methods assisted to find practical solutions of the research topics, where the outcome of them must be presented in the forms of applied technology, model, layout, recommendations, a set of exercises, etc.

Independent research skills are characterized by voluntary participation in research activities where students have fully mastered methodological and creative research skills. Voluntary research work is beneficial, because students should demonstrate their motivation for being engaged in research activities. If the interests of several students coincide, it is better to organize mini-groups. Students chose the following research topics for the round table "Language education in the era of digital transformation of society: problems and prospects" which was organized by the Faculty of Foreign Languages of Karaganda Buketov University [11]:

- 1) Analysis of the effectiveness of online courses compared to traditional teaching methods.
- 2) Exploring factors influencing the success of online learning.
- 3) Development of ICT competence of teachers.
- 4) Analyzing the impact of professional development on the use of ICT in teaching.
- 5) Motivation and learning outcomes in online learning:
- 6) A study of the influence of student motivation on their success in online education.
- 7) Analysis of the effectiveness of various motivation methods in a virtual environment.
- 8) Consideration of data security and personal information in online learning.
- 9) Analysis of ethical issues related to the use of ICT in education.
- 10) Pros and cons of online learning at schools, etc.

The aim of the round table is to engage students in research activity, which involves conducting real research and present the outcomes of it in the front of scientific audience. The discussion method was highly appreciated in the round table, where students were able to share with their ideas and thoughts. Students desired to participate at the round table discussion and demonstrate the peculiarities of online learning which they had during the pandemic in 2020. The reports of students were highly appreciated by juries of the round table.

Results and Discussion

The criteria and indicators of formation of students' research skills are demonstrated in Table.

T a b l e

Descriptions of the criteria and indicators of development of research skills

Criteria	Indicators		
	Elementary level	Productive level	Creative level
Methodological skills	No knowledge and specific skills of research activity.	A student can identify a research problem, search information, select methods, etc. with the guidance of the teacher	Using unique and extraordinary methods, strategies and technologies for organization of each step of research.
Creative skills	Actions by analogy. Ideas usually came from the teacher.	Ability to create original research ideas and implement them in practical research.	Some stages of the study can be carried out independently, but others stages are fulfilled with the help of the teacher
Independent skills	Using unique and extraordinary methods, strategies and technologies for organization of each step of research.	Individuals express themselves artistically and find unique solutions to problems.	This includes independence in the design, implementation, analysis, and interpretation of the research.

At the beginning of the experiment the majority of students who enrolled in the extracurricular classes had elementary level of research skills. Students lacked the necessary knowledge, motivation and research skills. Students might only complete a research task by an analogy. Additionally, students could only operate with the direction of a teacher because there was no independence in the implementation of research work, which could prove that students were at the elementary level of formation of research skills.

After organizing educational research in the framework of extracurricular classes participants showed a significantly increased level of development of research skills.

The successful completion of this research work required a proficiency in locating and choosing pertinent information, handling extensive numerical data, selecting appropriate methods and strategies, working with statistical information, and employing skills such as drawing analogies, establishing parallels, and conducting comparative analyses, etc. Students demonstrated a commendable utilization of these skills. The level of development of research skills can be seen in Figure (before and after extracurricular classes).

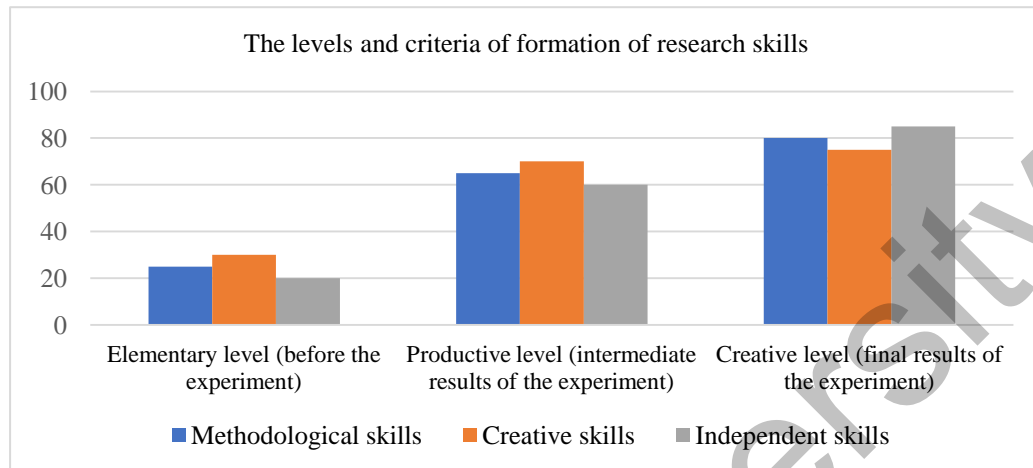


Figure. Development of research skills throughout the experiment

The intermediate results of the experiment showed us that students at the productive level demonstrated 65 % of methodological skills such as collecting data, processing information, selecting methods, preparing reports, etc. In addition, students made efforts to do educational research tasks with creativity, which was reached by 70 % of participants and considered as the highest indicator among other criteria. The teacher's role was to guide the students' research activities. It was noticeable that the students were doing peer-assessment work and helping each other during group work. Independent skills were increased by 60 %, that was 2 times more than it was at the previous level.

At a creative level, students volunteered to participate in the round table “Language education in the age of society digital transformation: problems and perspectives”, organized by the Faculty of Foreign Languages of Karaganda Buketov University [11; 123]. Taking part in the round table, students developed the following research skills and abilities:

- methodological skills (80 %) were characterized by finding practical solution of the problem, organizing an experiment, making a statistic analysis of the problem, presenting final results, etc.
- creative skills (75 %) — students applied unique and extraordinary methods, strategies and technologies for organization of each step of research, etc.
- independent skills (85 %) — students were able to independently work with the literature, analyze the obtained data, draw conclusions, evaluate themselves and participants' work, etc.

Conclusions

As a result of the study, we have determined that research skills are combination of practical, creative and independent skills such as the ability to organize independent research activities, work with information, conduct research, draw up conclusions and demonstrate the creative outcomes of research, analyze and evaluate research activities. Research skills are formed only in the fulfillment of educational research activities. Educational institutions should direct students to conduct research activities as a result we organized educational research activities within the framework of extracurricular classes.

The development of students' methodological, creative, independent research skills was estimated according to the following levels: elementary, productive and creative. Creating conditions at the university in the form of extracurricular classes have assisted future foreign language teachers to familiarize with the content and technique of conducting research and enhance creative abilities and motivation.

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Университетте сыныптан тыс сабақтар ұйымдастыру арқылы болашақ шет тілі мұғалімдерінің зерттеушілік қабілеттерін дамыту

Мақалада зерттеушілік дағдыларын дамыту мәселесі талданып, әдіснамалық, шығармашылық және өз бетінше зерттеу дағдыларын қалыптастыруға баса назар аударылады. Бұл зерттеудің негізгі аспектісі академик Е.А. Бөкетов атындағы Қарағанды университеті шет тілдер факультетінде сыныптан тыс ұйымдастырылған іс-шарада студенттердің зерттеу дағдыларын дамыту үшін оқу зерттеулерін пайдалану. Біздің зерттеуіміз стандартты сыныптағы оқыту шеңберінен шығатын зерттеу дағдыларын дамытуға оқу-зерттеу жұмыстарының әсерін талдаудан басталады. Авторлар оқу сабақтарынан тыс жүргізілетін оқу зерттеулері болашақ шет тілі мұғалімдері үшін қажетті зерттеу дағдыларын дамытуға қалай сәтті ықпал ете алатынын егжей-тегжейлі зерттеді. Зерттеудің мақсаты — болашақ тіл мұғалімдерінің кәсіби дамуына оң әсер ететін студенттердің зерттеушілік дағдыларын дамыту. Осы мақалада келтірілген зерттеу нәтижелері мұғалімдерді даярлау бағдарламаларын жақсартуға ұмтылатын білім беру мекемелері үшін құнды ақпаратты ұсынады және зерттеу дағдыларын меңгерген ағылшын тілі мұғалімдерінің жаңа буынын дайындауға негіз қалайды. Біз болашақ шет тілі мұғалімдерінің зерттеу дағдыларын қалыптастыратын және дамытатын университетте сыныптан тыс сабақтар түрінде оқу зерттеулерін жүргізудің маңыздылығын атап өттік.

Кілт сөздер: зерттеушілік дағдылар, оқу-зерттеу, зерттеушілік құзыреттілік, сыныптан тыс сабақтар, әдістемелік дағдылар, шығармашылық дағдылар, өз бетімен жұмыс істеу дағдылары, шет тілі мұғалімдері, мұғалім-зерттеуші, білім беруді жаңғырту.

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Развитие исследовательских умений будущих учителей иностранного языка посредством организации внеклассных занятий в университете

В статье проанализирована проблема развития исследовательских умений и акцентировано внимание на формирование методологических, творческих и независимых исследовательских умений. Центральным аспектом данного исследования является использование учебного исследования для развития исследовательских умений у студентов, где нами были организованы внеклассные мероприятия на факультете иностранных языков Карагандинского университета имени академика Е.А. Букетова. Наше исследование начинается с анализа воздействия учебных исследований на развитие исследовательских умений, который выходит за пределы стандартного классного обучения. Авторами детально

исследовано, как учебные исследования, проводимые вне учебных занятий, могут успешно способствовать развитию исследовательских умений, которые необходимы для будущих учителей иностранных языков. Целью исследования является развитие исследовательских умений студентов, которые окажут положительное влияние на профессиональное развитие будущих учителей языка. Результаты исследования, представленные в статье, предоставляют ценную информацию для образовательных учреждений, стремящихся улучшить свои программы для подготовки учителей, и закладывают основу для подготовки нового поколения учителей английского языка, владеющих исследовательскими умениями. Нами была подчеркнута важность проведения учебных исследований в форме внеклассных занятий в университете, которые формируют и развивают исследовательские умения будущих учителей иностранного языка.

Ключевые слова: исследовательские умения, учебные исследования, исследовательская компетенция, внеклассные занятия, методические умения, творческие умения, самостоятельные умения, учителя иностранного языка, учитель-исследователь, модернизация образования.

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