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UNDERSTANDING AND CULTIVATING RESEARCH COMPETENCE: A MIXED-METHODS EXPLORATION IN THE ACADEMIC CONTEXT OF KORKYT ATA KYZYLORDA UNIVERSITY

In the contemporary era of abundant information, cultivating research competence has become an essential skill in higher education. This study, conducted at Korkyt Ata Kyzylorda University in Kazakhstan, employs a mixed-methods approach to assess factors influencing the development of research competence among students and teachers. The research utilizes a survey created on the Google Form platform to gather quantitative data from 120 participants and qualitative insights from interviews with 12 students. The study aims to evaluate participants' understanding of terms like "proficiency" and "competency", explores the role of teachers in fostering research competences, and examines the impact of technology on research skills. The findings reveal diverse perspectives among students, emphasizing the multifaceted nature of research competence. Challenges include information overload and technical aspects of data analysis. Students value the integration of research competence in courses but desire a more structured approach. The study highlights the crucial role of teachers in motivating students and fostering a research culture. Results provide valuable insights for educational development and curriculum design in enhancing research competence within higher education.

Key words: Research competence, higher education, mixed methods, student perceptions, teacher influence, educational development.

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Зерттеу құзыреттілігін түсіну және дамыту: Қорқыт Ата атындағы Қызылорда университетінің академиялық контекстіндегі аралас әдістер

Ақпараттың көптігінің қазіргі дәуірінде зерттеу құзыреттілігін дамыту жоғары білім берудегі маңызды дағдыға айналды. Қазақстандағы Қорқыт Ата атындағы Қызылорда университетінде жүргізілген бұл зерттеуде студенттер мен оқытушылардың зерттеу құзыреттілігін дамытуға әсер ететін факторларды бағалау үшін аралас тәсіл қолданылады. Зерттеуде 120 қатысушының сандық деректерін жинау үшін Google Form арқылы дайындалған сауалнама және сапалық талдау үшін 12 студентпен алынған сұхбат ақпараты пайдаланылған. Зерттеу қатысушылардың «біліктілік» және «құзыреттілік» сияқты терминдерді түсінуін бағалауға бағытталған, зерттеу құзыреттілігін дамытудағы мұғалімдердің рөлін зерттейді және технологияның зерттеу дағдыларына әсерін зерттейді. Нәтижелер студенттер арасындағы әртүрлі көзқарастар мен зерттеу құзыреттілігінің көп қырлы сипатын көрсетеді. Мәселелерге ақпараттың шамадан тыс жүктелуі және деректерді талдаудың техникалық аспектілері жатады. Студенттер зерттеу құзыреттілігін курстарға біріктіруді бағалайды, бірақ құрылымдалған тәсілді қолдануды қалайды. Зерттеуде студенттерді ынталандыру мен зерттеу мәдениетін дамытудағы мұғалімдердің шешуші рөлі айқындалады. Алынған нәтижелер жоғары білім беру шеңберінде зерттеу құзыреттілігін арттыру мақсатында білім беруді дамыту және оқу бағдарламаларын әзірлеу үшін құнды ақпарат береді.

Түйін сөздер: зерттеу құзыреттілігі, жоғары білім, аралас әдістер, студенттің қабылдауы, оқытушының әсері, білім беруді дамыту.

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Понимание и развитие исследовательских компетенций: комбинированные методы в академическом контексте Кызылординского университета имени Коркыт Ата

В современную эпоху обилия информации развитие исследовательской компетентности стало важным навыком в высшем образовании. В этом исследовании, проведенном в Кызылординском университете имени Коркыт Ата в Казахстане, используется смешанный подход для оценки факторов, влияющих на развитие исследовательской компетентности студентов и преподавателей. В исследовании используется анкета, созданная на Google Form платформе для сбора количественных данных от 120 участников и качественной информации – интервью с 12 студентами. Исследование направлено на оценку понимания участниками таких терминов, как «квалификация» и «компетентность», исследует роль учителей в развитии исследовательских компетенций и изучает влияние технологий на исследовательские навыки. Результаты показывают разнообразные точки зрения среди студентов, подчеркивая многогранный характер исследовательской компетентности. Проблемы включают информационную перегрузку и технические аспекты анализа данных. Студенты ценят интеграцию исследовательской компетенции в курсы, но желают более структурированного подхода. В исследовании подчеркивается решающая роль учителей в мотивации студентов и развитии исследовательской культуры. Результаты дают ценную информацию для развития образования и разработки учебных программ в целях повышения исследовательской компетентности в рамках высшего образования.

Ключевые слова: исследовательская компетентность, высшее образование, смешанные методы, восприятие студентов, влияние преподавателя, развитие образования.

Introduction

In an era characterized by an ever-expanding wealth of information and knowledge, the ability to engage in systematic inquiry and critical thinking has become an indispensable skill. Among the pillars of modern education is the cultivation of research competence among students. This multifaceted aptitude equips learners with the tools to navigate the intricate landscapes of information, draw meaningful conclusions, and contribute to the ever-advancing frontiers of human understanding. Research competence, often used interchangeably with research skills or research literacy, represents an amalgamation of proficiencies that transcend the boundaries of disciplines and career paths. It encompasses the ability to pose meaningful questions, conduct rigorous investigations, evaluate information sources critically, and communicate findings effectively.

At the first meeting of the National Council on Science and Technologies under the President, the Head of State, Kassym-Jomart Tokaev, noted that science is the primary key to development at any age. In his speech, the President stated: "All success in the history of humanity is the result of knowledge. Especially in the modern age of advanced technology, it is impossible to move forward without science. That is why I pay special attention to the development of science. I specifically expressed my opinion on this topical issue in the pre-election program. Because the development of science is the most important part of state policy, it is one of the directions. Unfortunately, it has not been emphasized in our country for many years. Because of this, there are not a few problems that cannot be solved. It can be said that this field is lagging. To become a civilized country, we must fill this gap"(Tokayev, 2023) .

Ministry of Science and Higher Education Sayasat Nurbek said in his interview: "Science and education will be one of the main priorities in the creation of New Kazakhstan. According to this approach, one of the main indicators of students' progress should be their research activity" (Nurbek, 2022) .

The theoretical development of fundamental concepts for developing students' research competence remains incomplete, while its practical application is of great importance.

The research aims to assess and analyze the factors influencing the understanding of research competence among students and teachers within the academic context of Korkyt Ata Kyzylorda University in Kazakhstan. The research utilized a mixed method study where quantitative approach, employing a survey created on the Google Form platform to gather data from 120 participants, including faculty

members, 2nd-year, 3rd-year, and master's course students from the "Kazakh Language and Literature" and "Foreign Languages and Translation" departments. The survey included 8 questions. A survey was used to collect data related to a study aimed at developing research competence among teachers and students. To give the meaning to the study the researchers interviewed 12 students using the qualitative method. The study explores the students' and teachers' perceptions of research competence and its implications for their educational roles.

The objectives of the study:

1. Assess the understanding and differentiation of the terms "proficiency" and "competency" among the participants, as highlighted in the responses to the questionnaire.

2. Identify the key components and implications of proficiency and competency within the educational setting, as presented by the participants, including the students and faculty members.

3. Examine the pivotal role of teachers in fostering and enhancing students' research competencies, as indicated by the data derived from the students' and teachers' responses.

4. Explore the factors influencing students' motivation and engagement in research activities, analyzing the impact of teacher-student dynamics and its correlation with research competence.

5. To explore students' perceptions, experiences, and challenges related to the development of research competence.

Literature review

The term "research competence" is connected with both the teacher and student at the university. In modern society, the main goal of higher education is to prepare students for life in an erudite society, so the graduate must be able to set goals, achieve them, and solve problems independently. Therefore, it is necessary to teach the student to learn and independently acquire knowledge. In state educational standards of the third generation, competencies act as the goal and result. For a graduate to be able to engage in self-education, it is necessary to form his competence in the field. The researcher Indah R. N and others pointed out that the student's ability to conduct research is somewhat influenced by both the librarian's input and an instructional approach based on technology (Indah, 2017).

The research proficiency of students is additionally shaped by various factors, among them the capacity for self-assessment. Students capable of evaluating their problem-solving abilities autonomously can enhance their overall competence, including their research capabilities (Kelly, 2019).

Concerning the emphasis on research proficiency, a novel tool has been devised for evaluating the research capabilities of college students (Arici, 2019).

The researcher explained that research competencies could be described differently based on the specific purpose or subject in which they are used (Bottcher, 2018). The researchers emphasize the meaning of research competencies for two reasons. In the first case, students gain the skills of conducting research. In the second case, students get a critical, reflective attitude (Lambrechts, 2016).

Let us define the given terms using different sources.

As I.A. Zimnyaya states, there are two options for interpreting the correlation of these concepts: they are either identified or differentiated (Zimnya, 2003).

Ramazanova A and others understand competence as full rights and uses it mainly in the legal field, and he explains the meaning as a competent judge, who can and has the right to judge about something or anyone ... the judge is full-fledged. The concept of "competence" is not mentioned by this author. Thus, we can reason that according to Ramazanova A, both terms have a similar meaning (Ramazanova, 2020).

Native scholars A.K. Sagyndik and T.T. Ayapova defined *competence* as "a range of issues in which someone is well-informed" and proficiency as "possession of knowledge, awareness, and authority in any area" (Sagyndik, 2021:42).

According to the dictionary of V.S.Bezrukov, competency means the achievement of knowledge and skills that allow expressing professionally proficient implications, evaluations, and opinions (Bezrukova, 1996:46);

In the framework of domestic scholars A. Mendekenova and D. Dzhussubaliyeva for the definition of proficiency it is required to characterize its three components:

- Proficiency is defined as knowledge of a specific matter and knowledge of management science;

- introducing the level of education and professional work experience into the content of the proficiency concept;

- approval of proficiency in mutual relations of knowledge and means of their implementation in practice (Mendekenova, 2023:48).

Based on M. Kyaerst, when disclosing the content of proficiency, it is noted that there is a necessity to emphasize the following components:

- Preconditions for proficiency (efficiency, talent, knowledge);

- Human activity as a process (its descriptions, structure, and peculiarities);

- Activity Results (fruits of labor, changes in objects of activity) (Kyerst, 1980:45).

According to A.V. Khutorskoy, proficiency includes a set of interrelated personality traits set about a specific range of objects and processes required for high-quality productivity of activity about them. However, A.V. Khutorskoy expresses a definite attitude, in our opinion, that competence is a prearranged requirement for the learner's educational preparation, and proficiency is his progress (Khutorsky, 2002a:58) .

G.Zhaksybayeva and G.T.Srailova write about basic skills that can be interpreted as proficiency:

– "primary skills," e.g. literacy, numeracy;

– "vital skills," e.g. self-management, personal development;

–relationships with other people;

– "complete skills," e.g. communication, efficiency to make solutions;

– "social and civic skills," for example, social work, values, to be a volunteer;

– "skills for employment," for example, the efficiency of processing information;

– "entrepreneurial skills," for example, exploring business opportunities;

– "managerial skills," e.g., consulting, analytical thinking;

– "broad skills," e.g., planning control. All skills are significant for carrying out people's life goals (Zhaksybayeva, 2021:128) .

G.Zhaksybayeva and G.T.Srailova confirm that under the proficiency of a future specialist, foreign scientists understand the correspondence of a structured body of knowledge, skills, and attitudes acquired in the learning process (Zhaksybayeva, 2021:131) .

So on, "proficiency" is considered a combinative feature, which comprises the following main aspects: efficiency for goal-setting, action, assessment, and reflection (Muzalevskaya, 2018) .

The researcher A.B. Khutorsky mentions that we need to pay more attention to understanding the concept of "proficiency" and "competency" between these concepts when defining good points. Several efforts to evolve common terminology did not reach any success (Khutorsky, 2003b) . In today's pedagogical advanced educational century, these two central concepts' significance is increasing daily. So, we can say that pointing out information about

this area profoundly helps us to grow educationally. Therefore, all aspects go directly to figuring out these concepts. Analyzing various scientific sources allows us to single out three approaches to determining the relationship between these concepts. The first approach is characterized by the fact that both terms are used as synonyms. Representatives of the second approach consider proficiency to be a component of competency. According to the third approach, the concept "proficiency" is interpreted as the term of reference of a particular person, a list of social requirements for its activities in a specific area, while "competency" means the generalized efficiency of a person to act.

Based on the first meaning in the dictionary, proficiency qualifies as a range of issues in which a confident person has little authority, knowledge, and experience. According to the second definition given in a dictionary, competence is well thought-out as an activity feature, i.e., a particular circle of authority, an area of issues and phenomena subject to someone's jurisdiction (Sagyndik, 2021) .

According to the given definitions of proficiency and competency, we understand that professional-teaching proficiency belongs to the educational process from teaching to ruling the whole process. Competence in the field belongs to growing scientific abilities, and so on, and each balanced measure gives us results in this process. Proficiency is connected with a learning process, and competence is closely connected with research.

Competence in the field in the classification of A.V. Khutorsky serves as a component of the proficiency of personal self-improvement aimed at mastering the ways of intellectual and spiritual personal growth (Khutorsky, 2003b) . Feskova defines *competence* in the field as a set of knowledge, skills, and methods of activity that allow a person to be in the position of an investigator about the world around him, using various theoretical and empirical sources of information (Feskova, 2005) .

Competence in the field can only be formed in research activities such as search, independence, initiative, practical action, experiment, teamwork, underdetermination, contradictions, and different ideas (Gochiyayeva, 2018:231).

The essence of competence in the field of a teacher candidate is identified in the proficiency he mastered, which defines a set of interrelated research qualities. U.V.Ryndina notes that the theoretical analysis of the problem allowed them to create the following definition of the concept "the process of becoming and development of a teacher candidate's

competence in the field": this is a holistic process of students' movement – the future teacher towards subjectivity (Ryndina, 2013:147) .

It is explained in Larissa Repeta's investigation that the formation of proficiency levels will be critical, basic, elevated, and creative (Repeta, 2011:28) .

The researcher Pongwat Fongkanta and others wrote in their work that there was a range of skills needed for conducting an investigation. To evolve teacher competency, research skill development approaches and coaching were used for the teacher's professional development (Fongkanta, 2022) .

The authors made a scheme of stages of students' competence in the field based on the ideas discussed by different researchers (figure 1). If a teacher/student follows the given scheme they will get good results in elaborating the level of competence in the field.

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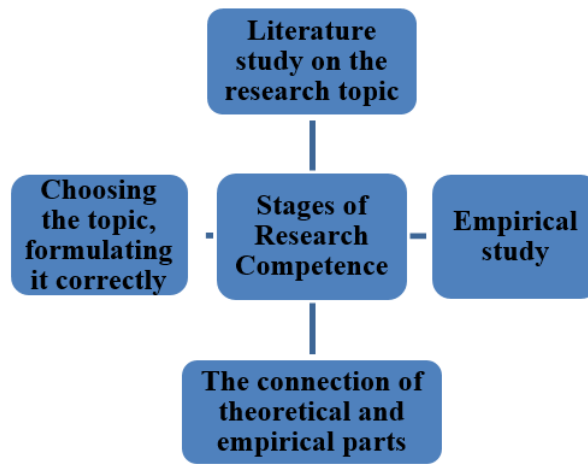

Figure 1 – Stages of Research Competence

The authors worked out a scheme of stages of students' competence in the field based on the ideas discussed by different researchers. If a teacher/student follows the given scheme, they will get good results in elaborating the level of competence in the field. Next, a discussion concerning the most significant factors that impact the comprehension and cultivation of research competence among students and educators will be offered.

The researchers outlined general factors influencing the understanding and development of research competence among students and teachers. The authors presented the most significant factors. One of the significant factors is an educational environment which includes the availability of research facilities, mentorship programs, and a supportive academic environment (Steele, 2022) . One group

of scholars considers that the design of the curriculum provides students with the necessary theoretical and practical knowledge and skills (Dilekci, 2023) . The next group of scholars affirms that mentorship and guidance can significantly impact students' research competence. Regular guidance helps students navigate challenges and develop a deeper understanding of research methodologies (Cutllas, 2023). Rodrigues A and others confirm that an adequate access to libraries, databases, and research materials is vital. Technological resources, such as online databases and research tools, also contribute to the development of research competence (Rodrigues, 2021) . The authors consider that motivation and interest are critical factors. Students and teachers who are passionate about their research areas are more likely to invest time and effort in developing their research competence (Setyani, 2022) . Skyrme

G states that formal training programs on research methodologies, data analysis, and academic writing are essential. Workshops and seminars that focus on specific research skills contribute to the overall competence of students and teachers (Skyrme, 2018) . Several scientists point out that collaborative research experiences foster the development of research competence. Group projects, team-based research initiatives, and interdisciplinary collaborations enhance the overall research skills of individuals (Bassachs, 2020) .

Another group of authors constitute that constructive feedback on research work is essential for improvement. Regular evaluation of research projects, presentations, and written work helps identify strengths and areas for development (Sparr, 2017) . One of the relevant factors is an understanding the ethical aspects of research. And being aware of cultural considerations in various research contexts contribute to well-rounded research competence (Pietila, 2020) . In essence, the multifaceted nature of these factors underscores the complexity of fostering research competence, emphasizing the importance of a holistic and comprehensive approach in educational settings.

Next, the authors will discuss the research materials and methods of this study.

Materials and methods

The authors used the mixed method in the study. The basic assumption is that the uses of both quantitative and qualitative methods, in combination, provide a better understanding of the research problem and question than either method by itself (Clark, 2019a) . Mixed methods research involves deliberately integrating the viewpoints, methodologies, data types, and analyses linked to both quantitative and qualitative research to cultivate detailed and well-rounded insights (Creswell, 2018a), (Clark, 2015b) .

Survey

A quantitative research methodology was employed in this study using a survey created on the Google Form platform. The study was conducted at Korkyt Ata Kyzylorda University in Kazakhstan, encompassing faculty members and students from various academic levels, including 2nd-year, 3rd-year, and master's course students. A total of 120 participants responded to the survey. The participants were drawn from the "Kazakh Language and Literature" and "Foreign Languages and Transla-

tion" departments. The survey was selected for its simplicity and suitability in data analysis. The researchers specifically chose participants familiar to them, including students, Ph.D. students, and faculty members.

Data collection involved using open-ended questions with clear answers presented on Google Forms. This approach was adopted to assess the respondents' understanding of research competence and their capacity to conduct research at the university. E. Ospanov highlights the importance of directly collecting information from individuals related to the research topic, often through surveys or interviews (Ospan, 2020) . The study was conducted based on Creswell's notion of collecting quantitative data, emphasizing the importance of identifying the participants and locations under investigation (Creswell, 2012b). Creswell advises that researchers determine whether to study individual participants or entire organizations, specifying the type and number of participants required for the research.

The survey comprised 8 questions tailored for both teachers and students, and the respondents provided their answers via the Google Forms platform. The survey consisted of 4 scale answers. The collected data were subjected to statistical analysis.

Interviews with students and faculty members

This study utilized a qualitative method approach to explore the development of students' research competence in higher education. The research questions guided the selection and implementation of data collection methods to provide a comprehensive understanding of the topic.

The interview questions included open-ended questions that aligned with the research questions, allowing for qualitative data to be collected.

Additionally, qualitative interviews were conducted to gain in-depth insights into students' perspectives and experiences related to research competence. Open-ended questions were used to encourage participants to share their thoughts, challenges, and recommendations. The interview questions were developed based on the research questions and the aim of exploring students' perceptions and experiences in depth (Braun, 2019), (Patton, 2014) .

Qualitative data from the interviews were transcribed verbatim and analyzed using thematic analysis (Braun, 2019) . The transcripts were coded to identify recurring themes and patterns related to the research questions.

The rigorous analysis of qualitative data allowed for triangulation of findings, enhancing the validity and reliability of the study (Creswell, 2018a) .

The research questions:

How do undergraduate students perceive and understand the concept of research competence?

What are the specific challenges and barriers that students face in developing research competence?

How do students perceive the integration of research competence within their undergraduate curriculum?

How do students perceive the role of technology in enhancing their research competence?

These research questions aim to explore students' perceptions, experiences, and challenges related to the development of research competence. They provide a starting point for qualitative inquiry to gain in-depth insights into the subjective experiences and perspectives of students in relation to research competence development.

Results and Discussion

The study's objective was to evaluate the research potential of students and the influence of teachers on the development of students' research competence, as well as their comprehension of competence within the field. Accordingly, a questionnaire was administered to both students and teachers to gauge their understanding of the terms "competence" and "competency."

The survey was designed and administered through an accessible online platform, presented natively, to ensure clarity for all participants. It consisted of two main sections. The first section included demographic information (university, course, age, and department); the second section comprised 12 questions for participants, encompassing personal information and research-related inquiries.

For clarity, the analysis of the survey is presented separately for students and teachers due to the differing orientations of the survey. The study encompassed a diverse student population, with 25% of participants being 2nd-year students, 60.4% being 3rd-year students, and 14.6% being Ph.D. students. Additionally, 44.5% of participants were aged between 18-20, indicating the researchers' comprehensive approach to investigating the research topic among students.

The findings revealed that students' understanding of proficiency and competency was lower than expected. Specifically, 32.7% of participants disagreed that proficiency and competency held distinct meanings, while 20.4% perceived these terms as synonymous. The comparative analysis of students' perceptions of proficiency and competence was based on ten questions, emphasizing the participants' understanding and acceptance of competence within their field of study.

The survey aimed to capture students' perspectives on research competence, underscoring the authors' emphasis on students' comprehension and acknowledgment of competence in their academic pursuits. Notably, 32.7% of respondents who had achieved noteworthy milestones in their research endeavors indicated their agreement with the corresponding questionnaire items. Now, the authors would like to suggest students' results as a diagram (Figure 2 and 3)..
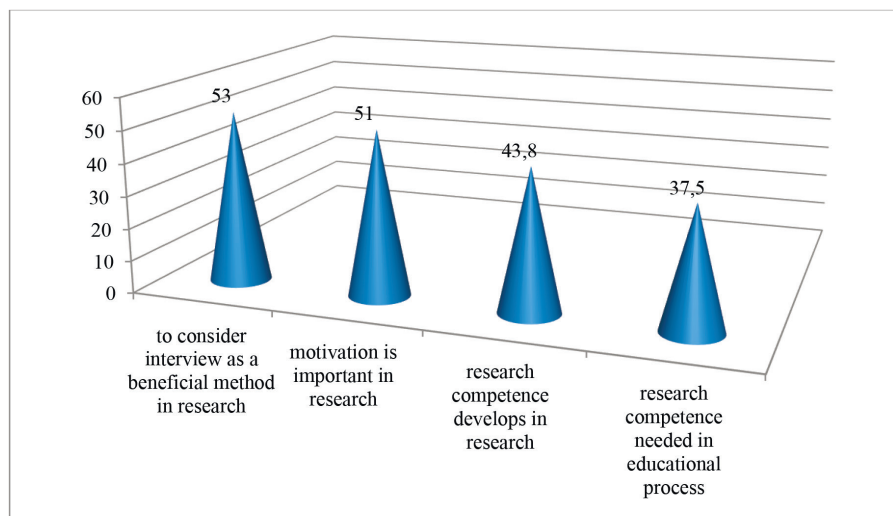

Figure 2 – Considering factors in research field

The findings of this study shed light on the persistent challenges related to research comprehension among students, signaling the prevalent issue of a lack of understanding of research and research methodologies in the educational domain. The surveyed materials initially appeared simplistic, yet the researchers discerned a latent interest among students in contributing to the discourse within the educational realm. Notably, the results indicate that students' research abilities are significantly influenced by the guidance and mentorship provided by teachers.

The researchers aimed to holistically analyze the participants' survey to gain a comprehensive understanding of the dynamics at play. Addressing the survey for teachers, the initial data presents the demographic information of the respondents. Notably, 51.2% of the participants were senior teachers, 31.7% were teachers, 7.3% comprised doctoral students and associate professors, and 9.8% were Ph.D. Most respondents (77.5%) possessed 10-20 years of work experience.

Within the core segment of the questionnaire, a consistent theme emerged, with a significant proportion of teachers (48.8%) strongly advocating for integrating a specialized subject, such as "Academic Writing," to nurture students' research capabilities effectively. This indicates a widely shared belief among educators that a dedicated focus on academic writing as a distinct discipline can facilitate the development of students' research competencies. The study highlighted the discrepancy between students' active participation in conferences during their second and third years and their limited ability to produce scholarly articles and undertake comprehensive research due to a lack of research proficiency.

From this perspective, the researchers noted that 53.7% of respondents emphasized the prevailing reluctance among learners to engage with research, indicating a potential gap in students' enthusiasm for research-related activities. This finding underscores the need for tailored pedagogical interventions to foster a deeper appreciation for research endeavors among students, thus cultivating a more robust research culture within the educational framework.
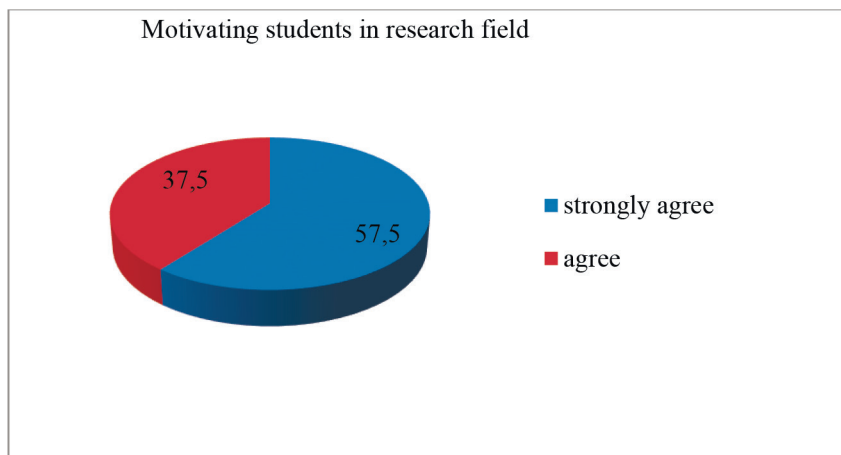

Figure 3 – Motivating students in research field

Results suggest a vital correlation between teachers' roles in fostering student motivation and cultivating students' research competencies. Figure 2 highlights the significant percentage of motivating factors reported by students, emphasizing the pivotal role of student engagement and interest in the educational process. The researchers underscore the critical importance of teachers' influence in nurturing and augmenting students' interest in academic research.

Throughout the study, the researchers identified several key factors within the teacher-student dynamic that can profoundly impact students' research competence. They observed that the collaborative efforts of both teachers and students play an integral role in the cultivation of a robust research culture within the educational sphere. The findings illuminate the reciprocal nature of the teacher-student relationship, underscoring the essential synergy between effective pedagogy and student enthusiasm,

ultimately culminating in comprehensive and impactful research endeavors.

The sample for this study consisted of undergraduate students from diverse disciplines and academic levels. Convenience sampling was utilized to recruit participants from "Kazakh language and literature", "Foreign languages and translation" departments of Korkyt Ata Kyzylorda university. Participants were invited through email invitations, and those who expressed interest in participating were scheduled for interviews sessions.

Data collection took place over a period of three months. Interviews discussions were conducted in-person and audio-recorded with the participants' consent. Each interview lasted approximately 45-60 minutes.

The research data that relates to each research question is discussed below.

RQ1. How do undergraduate students perceive and understand the concept of research competence?

Example:

"To me, research competence means having the skills and knowledge to effectively conduct research, such as being able to formulate research questions, gather and analyze data, then communicate findings." (Student 6).

RQ2. What are the specific challenges and barriers that students face in developing research competence?

Example:

"One challenge I've faced is feeling overwhelmed by the amount of information available, and not knowing how to effectively evaluate its credibility. Another barrier is the technical aspects of data analysis, as it requires learning new software and statistical techniques."(Student 12)

RQ3. How do students perceive the integration of research competence within their undergraduate curriculum?

Example:

"I appreciate when research competence is integrated into our courses through hands-on projects and assignments. However, sometimes it feels disjointed, and I would prefer a more structured and progressive approach that builds upon previous skills." (Student 3)

RQ4. How do students perceive the role of technology in enhancing their research competence?

Example:

"I believe technology is vital in research today. It provides access to vast amounts of information, facilitates data analysis, and enables effective communication. However, it can also be overwhelming,

and it's important to strike a balance and not rely solely on technology for research. For instance, we use different kinds of web sites during our research". (Student 1)

Although the interviewees gave different answers to the questions, the main idea of the answers was based on one point.

Conclusion

The researchers focus on the opinion of the scholars who state that there are two options for interpreting the correlation of these concepts: they are either identified or differentiated. In their data, it is proved that some respondents replied that the terms "proficiency" and "competency" have the same meaning. However, another group of participants answered that these terms are different.

The concept of proficiency is more often used to denote an educational result, expressed in readiness, in the absolute mastery of methods, means of activity, in the ability to cope with the tasks set; a form of a combination of knowledge, skills, and efficiency that allows you to set and achieve goals for the transformation of the environment; a set of features (motives, beliefs, values) that ensures the performance of professional activities and the achievement of an inevitable result; compliance of the specialist with the requirements of proficiency. However, it does not mean that we stick to the same opinion.

The researchers would like to repeat that the formation of students' competence in the field is possible only if the required environment, which contains the presence at the university of a sufficient number of highly qualified staff elaborated in research activities; the use of a competency-based approach in teaching; attracting students to scientific societies; application in practice of the project method of teaching; the general theme of the university's work on the arrangement of a research student competencies.

If a teacher/student follows the given scheme in the paper, they will achieve good results in improving research competence.

This study employed a qualitative research methodology to delve into the development of research competence among undergraduate students in higher education. The utilization of open-ended interview questions allowed for a comprehensive exploration of students' perceptions, challenges, and experiences related to research competence. The research questions, focused on understanding students' perceptions of research competence, specific

challenges faced, integration within the curriculum, and the role of technology, provided a robust framework for the qualitative inquiry. The diverse sample of undergraduate students from various disciplines and academic levels added richness to the data.

Results indicated a variety of perspectives among students, emphasizing the multifaceted nature of research competence. Common themes included the importance of skills such as formulating research questions, data analysis, and effective communication. Challenges encompassed information overload, difficulties in evaluating credibility, and the technical aspects of data analysis. Students appreciated the integration of research competence in courses but desired a more structured and progressive approach.

The role of technology in enhancing research competence was acknowledged, with students emphasizing its significance for information access, data analysis, and communication. However, a need for balance, avoiding overreliance on technology, was highlighted.

The findings provide valuable insights for educators and curriculum designers seeking to enhance research competence within higher education.

In conclusion, the authors say that with the help of a mixed method, they could reach their goal set in the beginning. The authors' goal was to identify how students and teachers understood research competence and how they acted in conducting research.

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