Assessing student experience as a tool for designing educational strategies at the university

This article investigates how the student experience, expressed through a student's subjective understanding of their educational and professional activities, impacts their subsequent professional development and engagement in the educational process. The study aims to analyze students' experiences, exploring their influence on their successful participation in their scientific and educational activities. We evaluated student experience by examining the presence of self-educational competencies, learning preferences, and motivations.

Utilizing Qualtrics, we surveyed students from all courses in three leading universities in Kazakhstan, and the results were analyzed using R Studio. The survey results highlight functional differences in student experience at different stages of university study. A comparative analysis of student experience indicators across all courses indicates the need to adequately form experiences of independent activities at the university or self-education. Moreover, without a deliberate focus in this direction, there is a tendency for students' activity to decrease in specific parameters crucial for professional development. The theoretical and empirical findings, conclusions, and recommendations in the article offer valuable insights for teachers and interested staff in the universities. These insights can be applied in the educational process to enhance students' engagement in various educational practices and when designing educational strategies.

Keywords: student experience, educational strategy, engagement, educational, research, and self-educational activities, motivation.

Introduction

Globally and in Kazakhstan, the higher education sector is experiencing significant changes. The requirements for the professional qualities of a future specialist have undergone substantial changes in the opinions of scientists, teachers, production workers, university administrators, and employers. These changes affected the content of general scientific and professional training, the development of new models of specialists, and training processes. Today, the ability to quickly navigate the information flow, the ability to adapt to the demand and needs of production and the changing economy and labor market, and the ability to compete in a professional environment are highly valued all over the world in addition to the knowledge acquired at the university [1].

With the expansion of the student's role in modern society by the new Concept of Education development in the Republic of Kazakhstan [2] and the requirements of the State Educational Standards, the emphasis on student activity is shifting to practice-oriented, activity-competence, and health-saving learning priorities. The conditions of higher education should serve as a starting point for developing the relevant professional competencies of a specialist. The discrepancy between what society expects from a graduate and what higher education provides can be overcome if we consider the student as an adult with his inner world, which needs to be developed and, at the same time, transfer professional knowledge to him.

Modern requirements for the educational process of a university, taking into account the psychological and physical development of students and a new approach to the educational process, are dictated by fresh views on the education and training of the younger generation. The problem of teaching students occupies a significant place in the pedagogy and psychology of higher education [3–6].

Foreign and Kazakhstan educators and psychologists pay special attention to this issue, and the technology of its assessment holds research significance. It is known that in Kazakhstan, accreditations are conducted and university rankings are determined by special independent national and international agencies to assess the quality of higher education. In this process, the opinions of employers and the professional...
achievements of graduates are taken into account. We believe that both external and internal evaluations of education quality are important in managing it. In this regard, E. Corte notes: “A modern university should focus on meaningful and productive education with a predominance of active, constructive, collaborative and individual engagement of students” [7], which means the necessity to design models of social experience in mastering new roles and interactions in uncertain conditions or stressful situations, as well as the ability to find a solution and be ready for action. We believe that experience is such a personality quality for decision-making.

I.Ya. Lerner defines social experience as “the entire set of social relations and interactions of a person in society” [8]. During their studies at a university, students have the opportunity to accumulate experience, which transforms a person as an individual [9]. It is known that the transformation of personality depends on many factors, such as the student’s satisfaction with the educational program, the degree of his engagement in the educational process, interest in the learning process itself, and the quality of the organization at the university. This is evidenced by several studies confirming our opinion that the university’s capabilities regarding the student’s personality are determined by the level of his self-determination in the educational process [10, 11].

Therefore, developing a student’s personal educational experience becomes an essential component of a modern university, and the experience itself, its observation and evaluation, becomes a research problem that requires constant research.

In our study, we explored the potential of internal assessment of the quality of education based on students’ experience. At the same time, we proceeded from the concept of “quality of higher education” as “the degree of compliance of the results and procedural characteristics of education with regulatory requirements, the needs of consumers and direct subjects of the educational process” [12]. Here, the compliance of the results and process of education with the requirements and demands of students as subjects of the educational process is an assessment and condition for ensuring the quality of higher education. Therefore, to ensure high-quality education, the students, their role, engagement in the educational process, and their perception are significant.

Thus, the students’ views and changes in their experience influence the assessment of the quality of education, which in turn is confirmed by the research conducted in this area by M. Tam and P. Ashwin [13, 9].

Initially, the need to consider student experience and their perception of the quality of education manifested itself as an orientation toward the consumer of educational services. However, D. Chung Sea Law, A. Dean A., and P. Gibbs [14, 15] consider this approach limited. In their opinion, an approach that assesses students’ satisfaction and perception of the learning process, educational environment, and personal development is productive.

It is acknowledged that the student performs different roles in the learning process. If he is positioned as a consumer of educational services, systems, and products, according to the opinions of D. Grace, S. Weaven, K. Bodey, and M. Ross, K. Weaven should be considered a client [16]. In this case, according to N. Matus, C. Rusu, and S. Cano, the student experience is a type of customer experience, the analysis of which leads to increased consumer satisfaction [17].

In pedagogical research, student experience is considered student satisfaction [18], students’ readiness for self-education and self-development, and subjective well-being [19]. Further development of the concepts of student experience is associated with its use to increase happiness and satisfaction [20].

In Russian pedagogical literature, the role of the student’s educational experience is considered a factor contributing to the formation of critical thinking [21], the role of the student as a consumer in the model of organizing education at the university [22], and how to improve the educational experience of students [23], for example, through the development of student’s personal and professional essential qualities [24].

A. Astin’s work [25] outlines his student engagement theory, which allows teachers to create a more effective learning environment. Here, the author defines student engagement as the quantity and quality of physical and psychological energy students invest in university studies. Other researchers, such as Trina J. and Beverley O., have identified key factors that shape student experience and define a model of student experience [26].

Based on the review and analysis of studies on student experience, the attention of researchers is more focused on skills, such as thinking, creativity, self-identification, and self-determination, than on the experience itself as a personal quality. Hence, we believe that it is important to consider student experience as the individual’s ability and readiness for conscious, successful action throughout the entire process of studying at
a university, and the results of its assessment will allow us to identify the necessary priorities in the formation of educational strategies at the university.

The purpose of our research was to assess student experience in three universities in Kazakhstan (Kazakh Agrotechnical Research University, named after S. Seifullin, Almaty Management University, and Karaganda State University, named after E.A. Buketov) and on its basis to prepare proposals and recommendations for the design of educational strategies in higher educational institutions of the country.

We set the following tasks to achieve the goal of the study:
- theoretical understanding of the concept of “student experience” and its components within the framework of domestic and foreign practice;
- study the structure of student experience of students of all courses of study in three Kazakhstani universities;
- analyzing the results of student engagement in the educational process;
- prepare recommendations for the design of educational strategies in universities, taking into account the assessment of the student's personal experience.

The novelty of this study lies in the attempt for the first time to present the student experience that determines the possibility and ability of him to act and interact, as well as in an integrated approach to the study of the structure of student experience at the university. The study results can be helpful in decision-making when modernizing the approach to educational and research strategies to increase their effectiveness and relevance among students and the professional community.

Many psychology experts have different understandings of the college experience. For example, M.A. Kholodnaya substantiates “the multidimensional nature of traditional indicators of intelligence and creativity and states the psychological ambiguity of these indicators” [27]. According to researchers such as S. Meehan and K. Howells, measuring the student experience in terms of satisfaction is a national measure prospective students use when choosing a university. For students, three things are critical about their experience: the faculty they work with, the nature of their academic learning, and their sense of belonging [28].

Foreign studies use the concept of student experience, which means the experience of students (student experience, individual learning experience) and its connection with student satisfaction, as an indicator of the quality of education. It is worth noting the recent increased interest in world science in research on student experience. The term “student experience” has become one of the main ones in the documents of many universities. The work of Douglas J., et al. [29] presents a conceptual model of student satisfaction with their experience based on identifying the variables that determine student perceived quality and the influence of these variables on student satisfaction and dissatisfaction with the learning process. Other researchers [30] have identified trends in research on student experiences in higher education, explained how areas of research on student experiences have been constructed, and explained how major research trends have changed. Some scientists believe that a student is an active subject of the educational process, a user of products, systems, and services of higher educational institutions [17]; others confirm the existing relationship between student engagement and the types of activities they choose [31].

Thus, based on the above, we have defined student experience as an expression of the student’s subjective idea of their educational and professional activities, of themselves as subjects of this activity, and of their readiness for self-education, self-development, and subjective well-being. Many tools are available, such as questionnaires, to study student experiences. Many of them reveal the quality of teaching, goals, motivation, and expectations of students, activity in learning, engagement in educational activities, the comfort of the learning environment, interaction with teachers, satisfaction with all aspects of education and student life, and much more. By analyzing data on student experience, it is possible to assess whether educational programs are adequate to the needs of students, the quality of teaching, etc. Based on such an assessment, universities design educational strategies, develop academic programs, improve the educational environment, and determine ways to support students.

Methods and materials

Our study used a questionnaire developed by T.N. Korneenko and I.A. Shcheglova [31]. We placed all survey questions into the Qualtrics platform, which supports the creation of anonymous surveys and conducting them online. The empirical basis of the study was made up of data from a survey of students at three Kazakhstani universities: S. Seifullin University, Karaganda Buketov University, and Almaty Management University. The survey included 496 students, with 165–166 students from each university enrolled in six educational programs. It was conducted anonymously and voluntarily via email correspondence. Of the 496 partici-
Participants, 103 were first-year students, 154 were second-year students, 128 were third-year students, and 111 were fourth-year undergraduate students.

Considering T.N. Korneenko, we also divided all questionnaires presented to students into five sections:
- the first section, which determines the degree of student engagement in educational activities;
- the second section, which determines the degree of student engagement in scientific activities;
- the third section, which determines the degree of self-educational activity of students during their studies at the university;
- the fourth section, which determines the educational preferences of students in practical classes at the university;
- the fifth section determines the degree of motivation of students in the learning process [31].

According to A. Astin, a student's engagement in the educational environment characterizes the degree of development of his educational experience [25] and is also a measure of its formation in the student [32, 33]. Therefore, the content of the questionnaire consisted of questions aimed at determining the extent of students' involvement in science, education, self-education, their preferences, and motivations [31].

Analytical strategy
To study the structure of the experience of students of four years of study in three Kazakhstani universities, we conducted a descriptive analysis of respondents' educational, scientific, and self-educational experience. A statistical program R Studio was exploited as a tool.

Results and Discussion

1. Learning Experience
To assess the learning component of the student experience, we determined how involved students are in the educational environment. Descriptive statistics based on the survey we conducted, characterizing the educational engagement of students of all courses, are presented in Diagram 1.

Analysis of the data obtained showed that students have weak indicators of their educational engagement (below the average level). The trend of engagement is decreasing from course to course. So, if in the 1st year it is higher, then by the 4th year it decreases significantly. Students of all courses are of particular interest in working on an interesting academic task (Question (Q) 3) and participating in discussions in class (Q1) but discussing meaningful issues in the course with the teacher outside of class time (Q5), on the contrary, is not attractive to them. The survey results demonstrate that the learning activity of 1st-year students in class is higher than that of others, and they are more often involved in many types of educational practices. Still, at the same time, they are less likely to participate in discussions with the teacher outside of class (Q5) (“often” 22.5 %). There is a decrease in student activity closer to the 2nd year, a noticeable increase in the 3rd year, and a reduction in the 4th year.

Regarding graduate students, it should be noted that there is a decrease in their participation in practices and group discussions to defend certain positions in the classroom (Q6) (“often” only 22.8 %) and in discussing substantive issues on the course with the teacher outside of class time (Q5) (“often” only 15.7 %).
2. Research experience

To assess the scientific and research aspects of students' experience, we analyzed their engagement in university-level research. Students were asked about their participation in searching for scientific resources, working on research articles, presenting their findings at seminars, engaging in discussions with professors and peers, and so on [31]. The results of the study are presented in Diagrams 2.1–2.3.

Diagram 2.1 The scientific component of the student experience

The findings from a questionnaire survey in this area enabled us to derive the following conclusions.

To begin with there is a feeble scientific communication activity of students of all courses in many types of scientific activities, namely visiting a scientific club (Q2), participating in research projects (Q3) and scientific conferences (Q4), assisting teachers in conducting scientific research (Q1), conducting a scientific literature review (Q6), participating in scientific discussions with doctoral and master students (Q10), attending popular science lectures (Q11), conducting independent scientific research (preparing an article) (Q12), attending a research seminar (Q13), independently selecting complex topics (Q14), working with a teacher on a project (Q15). At the same time, students tend to participate more often in group mini projects (Q7), independently access scientific sources (Q9), use scientific literature in classes (Q5), and complete assignments on topics of interest (Q8).
Secondly, despite the general passivity of students towards scientific work, first-year students show greater interest in this direction, unlike senior students. More than 40% of first-year students use scientific literature in class (Q5) and complete assignments on topics of interest (Q8) [57.4%]. 2nd-year students preferred to choose the answer “never” or “rarely” for such variables as helping teachers in conducting scientific research (Q1) [“never” 44.3%], attending a scientific club (Q2) [“never” 64.0%], participating in research project (Q3) [“never” 52.8%], conducting a scientific literature review in front of an audience (Q6) [“never” 35.2%], attending popular science lectures during the learning process (Q11) [“never” 35.9%], independent selection of complex topics (Q14) [“never” 30.3%]. That is, they need more engagement in research work. 3rd year students are more actively involved in group mini-projects (Q7) [44.1%] and completing assignments on topics that interest them (Q8) [48.3%]. Graduate students showed the lowest engagement in scientific activities.

Thirdly, there is a negative fact of deficient activity of all respondents in participation in scientific conferences (Q4), scientific discussions with doctoral and master’s students (Q10), and work on scientific projects that go beyond the scope of educational programs (Q15).

3. Self-education experience

Considering the experience of self-education as the experience of self-determination of students in professional independent educational activities during the period of study at a university, which, according to M. Balyasin, L. Karvalkho, G. Mikhut, is a resource for self-development and self-determination of the student, we conducted a questionnaire to determine the self-educational component of student experience student survey [23]. Diagram 3 below presents the results of our survey, which shows that students’ self-education experience is at an average level. It should be noted that students of all courses indicated that when they have difficulties, they independently try to figure it out with the help of scientific and educational literature and presentations of data by the teacher (Q1), resort to the help of classmates (Q2), or search on the Internet for a similar lecture from another university and videos of the teacher (Q5). 3rd and 4th-year students mostly prefer to take advantage of teacher consultations (Q3). And almost all students showed little interest in online courses (Q4).
4. Study preferences of students

The questionnaire included questions regarding their educational preferences to understand how the university’s educational activities meet students’ expectations. The results, reflected in Diagram 4, indicate that all types of work presented are essential for students of all courses. At the same time, first-year students give particular preference to participating in discussions and the opportunity to ask questions (Q3) (“important” 50.6% and “significant” 22.9%). 2nd-year students, unlike students of other courses, believe that working in a group on an interesting task is more important for them (Q2) (“important” 37.9% and “very important” 29.2%). 3rd-year students also prefer working in a group on an interesting task (Q2) (“important” 52.5% and “very important” 27.9%) and participation in discussion and the opportunity to ask questions (Q3) (“important” 43.2% and “very important” 29.6%). Graduate students prefer to work in a group on an interesting task (Q2) (“important” 54.0% and “very important” 16.0%) and solve problems independently (Q4) (“important” 60.0% and “very important” 15.0%).

5. Motives as a factor of engagement

The fifth section of the survey was related to identifying the connection between students’ learning motives and their level of engagement in the educational process. According to E. Ilyin, who claims that a motive is an internal reason that determines a person’s behavior [31, 33], we are inclined to assume that the motive is directly reflected in the manifestation of a student’s activity or engagement in active university life. The motives that guide students are divided into external ones that provide career growth and internal ones that provide the desire for new knowledge and self-education, actively involving them in the educational process, leading to a change in the initial structure of motives.

Diagram 3. Self-educational component of student experience

Diagram 4. Study preferences of students during practical classes at the university
Diagrams 5.1 and 5.2 present the statistically significant indicators we obtained during a survey of students from 1st to 4th year.

The presented results indicate that for all students, the cognitive motive is dominant, i.e., study and learn new things; in second place is the professional motive associated with the acquisition of deep professional knowledge and skills, and in third place, it should be noted the social motive related to material well-being. In last place is the motive of self-affirmation — “I study to prove to myself that I am an intelligent person”.

The results indicate that 1st-3rd-year students choose the answer “like to study and learn new things” for all types of work, i.e., they are driven by a cognitive motive and a “professional motive”. In their final year, they are more driven by cognitive and material motives in practical classes.

We conclude that students’ engagement in active educational activities directly depends on their own motivation in the learning process, highlighting the necessity of deliberate actions when designing management strategies within the university [31].

Diagram 5.1 Motivational component of student engagement

Diagram 5.2 Motivational component of student engagement

This study does not offer models for designing educational strategies and their verification, only some recommendations. It is known that the primary approach to designing modern educational strategies in universities is to meet the educational needs of students and effectively correlate them with the objectives of social development. Our research has shown that student experience has three components: educational experience, scientific experience, and self-education experience, to which some attention should be paid. Low student engagement in educational activities means the underdevelopment of the educational component of
the student experience and the imperfection of the educational practices or strategies presented by the university.

Based on the analysis of the results of the study, we made the following conclusions:
- the presence of more excellent educational activity among first-year students, associated with the lack of experience of mistakes in the university educational process among first-year students, a particular inspiration by them in the new educational environment, and the desire to experience a new status as a university student;
- The results obtained require work to enhance the educational component of the student experience in years 2–4, for example, revising the format of classes with an emphasis on group discussions, making presentations in class, and discussing questions about the student course with the teacher outside class.
- the presence of low indicators of scientific activity compared to educational activity among students of all four years is associated with their weak engagement in research activities. In this regard, the teaching staff needs to more actively involve students in scientific projects, scientific circles, conferences, popular science lectures, scientific seminars, and scientific discussions, teach them to independently work with scientific literature and carry out complex tasks and projects;
- the experience of independent activities, the so-called knowledge of self-education, is mainly formed at universities. Addressing academic challenges through dialogue with classmates and instructors, online research, and scholarly literature confirms this [31].
- it is necessary, already from the 1st year, to involve students in independently acquiring additional professional knowledge and completing the required specializations through online courses for further self-determination in a professional educational environment during their studies at the university;
- Considering the particular importance of the factor of students’ engagement in the educational process, there is a need to purposefully develop their educational experience and increase their motivation to learn.
- in connection with positive changes in the teaching experience of students from course to course, there is a need to revise the university’s strategies at certain stages;
- to increase the motivation of students for active educational activities at a university, it is necessary to increase the share of interactive technologies in the design of educational strategies, which in turn will increase cognitive activity in individual, group, professional, and research communications;
- when planning educational strategies for a university, it is necessary to strengthen their focus on increasing the overall communicative component, which is the basis for stimulating and enhancing the engagement of students in meaningful activities.

Conclusions

Human experience is essential to a successful life in the modern world. The student’s learning experience is formed in the scientific and educational environment of the university in the process of mastering the corresponding educational program [31]. Success in this direction depends on many human qualities, such as critical thinking, emotional state, creativity, self-regulation, volitional efforts, etc. Our study monitored changes in the student experience in three significant components: educational, scientific, and self-educational. The parametric characteristic was the student’s engagement in educational activities, characterizing the level of formation of the educational experience and reflecting the directions of its further development.

Our research results showed that students’ experience, according to the competency model, is developed statically and functionally, with the dynamic aspect remaining stagnant. This suggests that when crafting new educational strategies, mandatory screening and monitoring of the educational process within the university’s management system are essential. Furthermore, a decline in students’ interest in learning was observed, underscoring the necessity of designing the educational environment based on the university's monitoring data. Also, when designing educational strategies for a university, it is necessary to emphasize strengthening their communicative, meaningful, and reflective components.

References


Серия «Педагогика». 2024, 29, 2(114) 169
2 Об утверждении Концепции развития высшего образования и науки в Республике Казахстан на 2023–2029 годы. — [Электронный ресурс]. — Режим доступа: https://adilet.zan.kz/rus/docs/P2300000248.


Оценка студенческого опыта как инструмента проектирования образовательных стратегий в университете

В статье исследовано, как студенческий опыт, выраженный через субъективное понимание студентом своей учебной и профессиональной деятельности, влияет на его последующее профессиональное развитие и участие в образовательном процессе. Целью исследования является анализ опыта студентов, изучение его влияния на их успешное участие в научной и образовательной деятельности. Мы оценивали опыт студентов, рассматривая наличие компетенций самообразования, учебных предпочтений и мотивации. С помощью Qualtrics мы опросили студентов всех курсов трех ведущих университетов Казахстана, а результаты проанализированы с помощью R Studio. Результаты опроса подчеркивают функциональные различия в опыте студентов на разных этапах обучения в университете. Сравнительный анализ показателей опыта студентов по всем курсам свидетельствует о необходимости адекватного формирования опыта самостоятельной деятельности в вузе или самообразования. Более того, без целенаправленной ориентации на это направление наблюдается тенденция к снижению активности студентов по отдельным параметрам, имеющим решающее значение для профессионального развития. Теоретические и эмпирические выводы и рекомендации, содержащиеся в статье, представляют собой ценную информацию для преподавателей и заинтересованных сотрудников университетов. Эти идеи могут быть применены в образовательном процессе для повышения вовлеченности учащихся в различные образовательные практики и при разработке образовательных стратегий.
References


2. Ob utverzhdenii Kontseptsii razvitiia vysshego obrazovaniia i nauki v Respublike Kazakhstan na 2023–2029 gody [On approval of the Concept of development of higher education and Science in the Republic of Kazakhstan for 2023–2029] [in Russian].

3. Razvitie psikhologicheskoi nauki v Kazakhstane [Development of psychological science in Kazakhstan] [in Russian].


Assessing student experience as a tool...