

## Developing psychologist attributes in higher educational institutions: case of Kazakhstan

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### ABSTRACT

This study's purpose is to identify the most necessary attributes of a modern psychologist through a survey of practical psychologists, teachers, and students from the Faculty of Psychology, Toraigyrov University. The survey allowed us to develop an effective training program for psychologists. The study involved 115 respondents from Kazakhstan, 60 of them were future psychologists. The respondents took the survey to determine the key attributes of a modern psychologist. The research was also based on literature analysis and generalization, questionnaires, and ranking. The Cronbach's alpha coefficient was utilized to assess the reliability of the authors' questionnaire items. SPSS Statistics program was applied for statistical data processing. According to the results, 80% of practical psychologists wanted to improve the curriculum for their students. At the same time, 72% of students believe that the program should primarily be practice-oriented. The students unanimously noted the key quality of the psychologist—empathy. The vast majority (94.1%) mentioned moral principles, and 85.7% indicated authenticity. However, teachers and psychologists did not emphasize the above criteria. The current study aims to develop a basis for an effective training program for future psychologists studying at the universities of Kazakhstan according to their modern needs.

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## 1. INTRODUCTION

The formation of a personality in an educational institution is the most important element of human development. Support and comfortable learning conditions are crucial factors in the success of university activities. Therefore, in this context, the role of a psychologist is vital. Research into the psychological development of a human reveals how people perceive the world, interact with each other, and react to different situations. This knowledge is key to solving problems in education, interpersonal relations, work, and many other fields [1]. The progress of mental health problems, such as depression, anxiety, and stress, puts psychology in the spotlight. By studying the professional development of a psychologist, students understand the factors contributing to mental health and development, as well as learn effective teaching and support methods [2]. Psychological studies of development processes show that individuality is formed under the influence of numerous factors, including genetic, social, and environmental. The study on the development of a psychologist explains to students the factors that influence personality formation and the strategies for improving the development of an individual [3].

The Republic of Kazakhstan's decentralized educational system puts more responsibility on higher education institutions to ensure the quality of the curriculum. Educational institutions are in charge of creating educational programs, curricula, and teaching materials. The institutions decide on the subject matter of instruction, the order of training courses, and the best teaching techniques and technologies [4].

The training of psychologists in Kazakhstan is a mandatory 4-year bachelor's degree program. Educational programs are currently being reviewed in terms of learning outcomes. Learning outcomes should define the knowledge, understanding, skills, and attributes that students demonstrate after completing their program of study. The Competency-Based Learning Summit held in Colorado, United States in 2017 identified that learning outcomes emphasize competencies, which include utilizing and developing knowledge, as well as the development of important skills and aptitudes [5].

Currently, modern educational programs define some professional competencies of future graduates to improve the interaction between universities and employers. Based on the needs of employers, the program can depend on some changes in the relevant industry. Therefore, universities strive to serve the needs of the labor market rather than only provide academic knowledge. At the same time, the relevant skills are often not fully outlined in the context of changes in educational processes.

Rapid changes in industry requirements have reinforced the traditional contradiction between regular higher education conditions and the needs of employers [6]. Universities should improve the educational process to prepare students for competition in the labor market. Given changing and somewhat unpredictable requirements, graduates need competencies that prepare them for different professions [7]. In the current state, these competencies are often insufficiently clear.

Therefore, it is important to assess the key qualities necessary for future psychologists to successfully apply professional skills [8]. At the same time, the geographical aspect is also important: the requirements for solving certain common problems or the features of educational ecosystems are different. In addition, it is crucial to assess the needs of students in the management of the educational process and employment. After all, psychologists working with young people should be able to adapt to the changing modern environment and meet their needs [9].

## 2. LITERATURE REVIEW

Psychological support at school has been actualized since the beginning of the 20th century. The first psychologist at the educational institution started to work in 1913 and was an intermediary for the selection of gifted children [10]. The goal of university education is to provide psychology students with solid basics to work both as a researcher and practitioners in various fields of specialization [11]. After graduating, a future psychologist should achieve the learning outcomes declared in the educational program. University degree programs should be in compliance with changing professional requirements and offer current training to meet the needs of employers and graduates because of the labor market's rapidly changing demands [12].

Psychological education has long been outdated and used irrelevant psychological studies. Modern psychological education is still improving in terms of special textbooks and manuals, relevant faculties and departments, and diverse training and practical classes [13]. Due to outdated curricula, students do not have an idea of the required professional skills [14]. Currently, universities take on greater responsibility for the professional development of students and the development of appropriate programs to meet the changing employers' needs [15].

In European universities, educational programs build on the principles of the Bologna process. They offer a competency-based approach and student-centered learning system aimed at providing graduates with the skills necessary to adapt to the requirements of employers in an increasingly competitive society [16]. However, due to the increase in the number of higher educational institutions, it has become difficult to provide training focused on skill development. Therefore, it is necessary to advance the list of essential skills. They are listed under various headings, including "inherent characteristics" and "attributes of graduates" [17].

Learning outcomes are applied at the institutional level as graduate attributes or graduate outcomes, and at the program and course level [18]. Dearing's report addressed such qualities as "critical thinking", "ethical practice", "creativity", "independent problem-solving", "professional skills", "communication skills", "teamwork", and "lifelong learning". These qualities are fundamental for responsible citizens in a global society [19]. Attributes begin with knowledge and understanding of psychology, moving on towards research methods and critical thinking skills; followed by values and communication skills; with the final study and usage of the psychological project [20].

EuroPsy defines core competencies that professional psychologists should develop and demonstrate before they are allowed to practice on their own. These competencies refer to aspects of the process by which psychologists provide services to their clients. There are two main groups of competencies: i) those related to the psychological content of the professional practice process (primary competencies); and ii) those that

enable the practitioner to provide their services effectively (auxiliary competencies) [21]. These competencies can be defined as psychologist attributes.

Researchers point out that the key qualities of a psychologist are the ability to work with people and public speaking. The development of these attributes plays a significant role in the education of future psychologists [22]. At the same time, a psychologist should be able to empathize and understand the emotional state of students. Empathy helps to establish trust and understanding with students. It also creates a comfortable and supportive atmosphere [23].

Based on professional standards and stakeholders' opinions, each university creates its model of student attributes, which includes personal characteristics and professional skills. The development of the attributes required for a psychologist is an important educational stage in many universities in modern developed European countries and America. The guarantors of qualified psychological training are a favorable educational climate for students, the study on the specifics of interaction between teachers and students, and stress resistance development [24].

Scientists from the United Kingdom and Australia noted that the key competencies for psychologists are related to professional orientation and competence in advanced, clinical, and social psychology. Psychologists should professionally use methods of assessment and diagnosis of psychological problems, as well as have the skills to conduct interventions and psychological support. At the same time, every psychologist should act as a conscious person who develops both themselves and the world around them [25]. For example, when applying to the Faculty of Psychology in Germany, the applicant requires the following qualities: the ability to learn something new (search for information, read), knowledge of English (to analyze works of foreign scientists), love of mathematics (statistics and mathematical methods take up most of the training at the Faculty of Psychology), and analytical thinking [26].

For this study, the professional skills of psychologists were defined as those that are directly related to the provision of psychological services to clients or the evaluation and improvement of service delivery [27]. The attributes of psychologists are characterized as professional qualities, personal characteristics and personal competencies of a psychologist that contribute to the provision of effective psychological services to clients. Nevertheless, the studies by Duchesne and McMaugh [13] indicated that there is a significant difference between the accents of a school psychologist and a psychologist. The researchers note that a school psychologist should be more empathic and sociable, while the activities of a university psychologist should be more mentally and professionally oriented. Thus, graduates acquire not just a set of professional skills, but certain attributes that become part of their personality. In practice, a professional psychologist must have certain professional skills and personal characteristics. Personal characteristics are essential for the successful acquisition and use of competence [28].

The analysis of the world practice regarding the professional development of a psychologist shows that the important skills are numerous. Psychological education varies in each country. However, the approach to development is often not comprehensive and focuses on the professional context of the psychological competencies. Thus, there is a significant gap in the set of measures for the development of multi-layered skills in the studied region. Therefore, the analysis of the key development vectors of psychologists is an important element in the formation of an effective paradigm of psychological education at universities.

The purpose of this research is to study the following issues in developing psychologist attributes:

- i) Assessing the key attributes necessary for graduate psychologists to apply professional skills successfully;
- ii) Studying students', teachers' and psychologists' opinions about improvement perspectives of the educational process organization and employment opportunities. The results of the study formed the basis for the development of the educational program for future psychologists at Toraigyrov University, Kazakhstan.

### **3. RESEARCH METHOD**

#### **3.1. Research design**

The content analysis and generalization of Kazakhstani and foreign standards, theories, and methodological literature on the studied problem was conducted. To explore opinions about improvement perspectives of psychologists' employability a special authors' questionnaire was developed. The questionnaire depended on the analyzed research and the specifics of education at universities in Kazakhstan. Respondents were inquired to evaluate ten main attributes of graduate psychologists defined in the professional standard. Each attribute was ranked according to a percentage. Attributes of psychologists have been determined in the Kazakhstan Professional Standard [29] and several studies [15], [28], [30]. An online service was used for ranking [31]. The study took place from October 2022 to December 2022.

### 3.2. Sample

The survey involved 115 respondents, including 60 students of the psychology specialty, 20 psychologists in private practice, and 35 university teachers of psychology. The average age of specialists was 25.7; SD=13. Teachers and students worked and studied at Toraigyrov University; private psychologists worked in small firms and centers providing psychological services.

Within the scope of the current study, a simple random sampling method was employed. Considering the total number of students in the studied specialization within higher education institutions, as well as the number of professionals and private psychologists, and their overall distribution, the allowable margin of error does not exceed  $p=3.88$ . Consequently, the current sample is deemed representative for the research purposes and is statistically justified within the educational institution.

The respondents participated voluntarily. The administrations of educational institutions received e-mail letters with materials describing the purpose of the study. Within 2 weeks, each interested person had to send an application from their mail for approval of participation in the experiment. These applications were examined to form a group of respondents. The acceptable sampling error does not exceed  $p=4.73$ . Thus, the sample can be considered sufficiently representative for the study.

### 3.3. Data analysis

The Cronbach's alpha coefficient was used to assess the reliability of the questionnaire items. The cumulative Cronbach's alpha value for the questionnaire was 0.924 of (0.93, 0.93, 0.93, 0.91, 0.92) for five measurements in the same sequence. As a conclusion, the questionnaire was reliable for research. The study made use of the statistical data processing program IBM SPSS Statistics 2016. The research data were tested using the student's t-test.

The impact of confounding factors was determined using the Cochran-Mantel-Haenszel criterion. The mean value of the confounder's influence is 0.0051. Therefore, the confounder does not have a significant effect on the research outcomes, indicating the absence of systematic error in the current analysis.

### 3.4. Ethical issues

Since the study involved students, the administrations of each university were informed about the participation of their psychologists in the study. All surveys followed the ethnic specifics of each educational institution. The answers were anonymous.

### 3.5. Research limitation

The study used a small sample of respondents. The questionnaire was unified and included basic needs for the development of psychological skills. The research questions corresponded to the specifics of the educational system and the role of a psychologist in Kazakhstan.

## 4. RESULTS

The results of the survey on the main qualities that are important for a psychologist vary. The three groups of surveyed respondents showed somewhat different results. The ranking data is presented in Table 1. All three groups of respondents evaluated empathy as the most important attribute necessary for a graduate psychologist; they assigned it Rank 1. The three groups equally understood the importance of ethical principles; this attribute received Rank 2. Psychologists and students agreed with the importance of authenticity (Rank 3 in both groups), while teachers determined Rank 7 for this attribute. Teachers and psychologists agreed to assign the ability to work in a team Rank 4 in both groups. However, a group of students rated this attribute lower – as Rank 7. The creativity attribute demonstrated the main agreement among all three groups: students assigned it Rank 8; teachers and psychologists – Rank 9.

Table 1. The ranking data

Attributes	Students		Teachers		Psychologists	
	%	#	%	#	%	#
Empathy	100	1	98	1	93.3	1
Ethical principles	94.1	2	94.1	2	86.7	2
Authenticity	85.7	3	54.3	7	80	3
Stress resistance	83.3	4	28.6	10	66.7	6
Critical thinking	74.3	5	48.6	8	60	7
Communication qualities	65.7	6	74.3	3	73.3	5
Ability to work in a team	62.9	7	65.7	4	80	4
Creativity	54.3	8	37.1	9	40	9
Ability to self-learning	48.6	9	54	6	33.3	10
Flexibility	37.1	10	62.9	5	46.7	8

Stress resistance was rated relatively important for students (Rank 4), the teachers' group gave it Rank 10, and psychologists agreed on Rank 6. Moreover, a group of students considered critical thinking as a more significant attribute than teachers and psychologists. Critical thinking received Rank 5 from students, Rank 7 from psychologists, and Rank 8 from teachers.

Communicative qualities were most highly rated by teachers as Rank 3, a group of students and psychologists did not rate them so highly: Ranks 6 and 7, respectively. The main difference in assessment concerns the attributes of flexibility and the ability to self-learn. Flexibility and self-learning ability were rated as relatively important qualities by teachers (Ranks 5 and 6). On the other hand, a group of students and psychologists considered these attributes to be the least important. Thus, students assigned self-learning ability Rank 9, psychologists – Rank 10. As for flexibility, it was rated as Rank 10 by psychology students and Rank 8 by psychologists.

Three groups of respondents were asked to evaluate the conditions aimed at improving the quality of the teaching and learning process at the university to improve employment, using a Likert scale [32] (1–strongly disagree, 2–disagree, 3–neither agree nor disagree, 4–agree, 5–strongly agree). Answers “5 and 4” refer to a high level, “3” to an average level, “2 and 1” to a low level. The questionnaire to explore opinions about improvement perspectives of psychologists' employability contained the following statements, which are combined into elements: i) The training program should develop attributes that contribute to the application of professional skills in the workplace; ii) Practice-oriented teaching methods should be applied; iii) The number of hours of professional disciplines should be increased; iv) Training of psychologists should include the passage of supervisory practice; v) Students should master the skills of practice work in psychological service institutions; vi) The content of academic disciplines should comply with modern requirements and the latest research in psychology. These items of the questionnaire demonstrate the attribute development, the acquisition of professional competence in situations close to real professional activity, and the content improvement of educational programs by increasing the quality and the number of hours of the professional disciplines.

To verify the validity of the created questionnaire and the consistency of each of its items, the study used Cronbach's alpha coefficient (SPSS Statistics program). All of the questionnaire items have an internal consistency of Cronbach's alpha .704 and Cronbach's alpha based on standardized items .720. Since the coefficient is close to one, the questionnaire has a high level of internal consistency. Table 2 demonstrates the calculation of the Cronbach's alpha coefficient. The results of students' survey are presented in Figure 1 [ $t=4.410$ ,  $df=35$  Sig. (2-tailed)=.000,  $diff.=2.77$ , Std. Error mean=.6484, 95%].

Table 2. Calculation results of Cronbach's alpha for questionnaire items

Variable	Cronbach's alpha: .704					
	Cronbach's alpha based on standardized items: .720					
	1	2	3	4	5	6
1	1.000	.490	.567	.455	.256	.112
2	.490	1.000	.356	.564	.137	.145
3	.567	.356	1.000	.400	.351	.178
4	.455	.564	.400	1.000	.160	.035
5	.256	.137	.351	.160	1.000	.100
6	.112	.145	.178	.035	.100	1.000

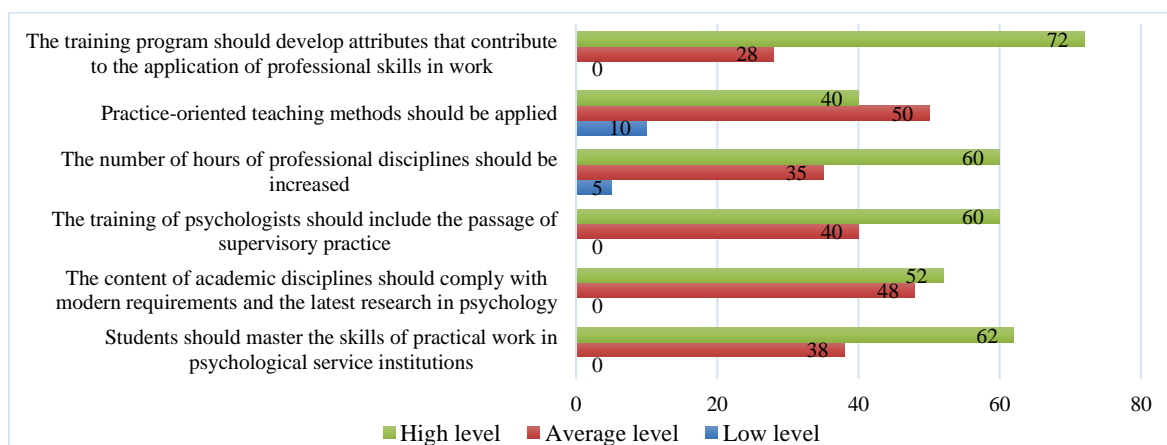


Figure 1. Results of students' survey

The results show that students would like to acquire professional skills in situations close to real professional activity, which will certainly improve their employment opportunities. It is also important for them to discover and develop attributes that will contribute to the successful application of professional skills. Figure 2 presents the results of the psychologists' survey [ $t=3.649$ ,  $df=35$  Sig. (2-tailed) = .000,  $diff.=2.61$ , Std. Error Mean=.7882, 95%]. The results of the psychologists' survey show that all statements received a value of more than 50%. This suggests that psychologists want the process of training psychologists to be harmonious. The results of the teachers' survey are shown in Figure 3 [ $t=4.474$ ,  $df=35$  Sig. (2-tailed)=.000,  $diff.=2.53$ , Std. Error Mean=.6282, 95%]. The results of the survey of teachers, which are shown in Figure 3, illustrate that the training of psychologists should be harmonious, just as it is for psychologists, but the majority of responses, more than 80%, were directed at improving the content of educational programs.

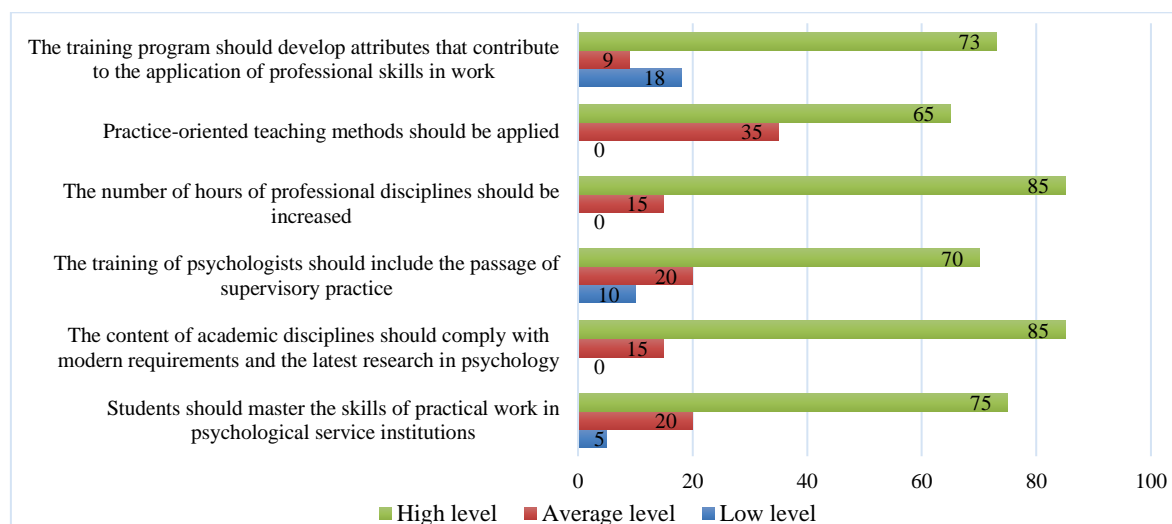


Figure 2. Results of psychologists' survey

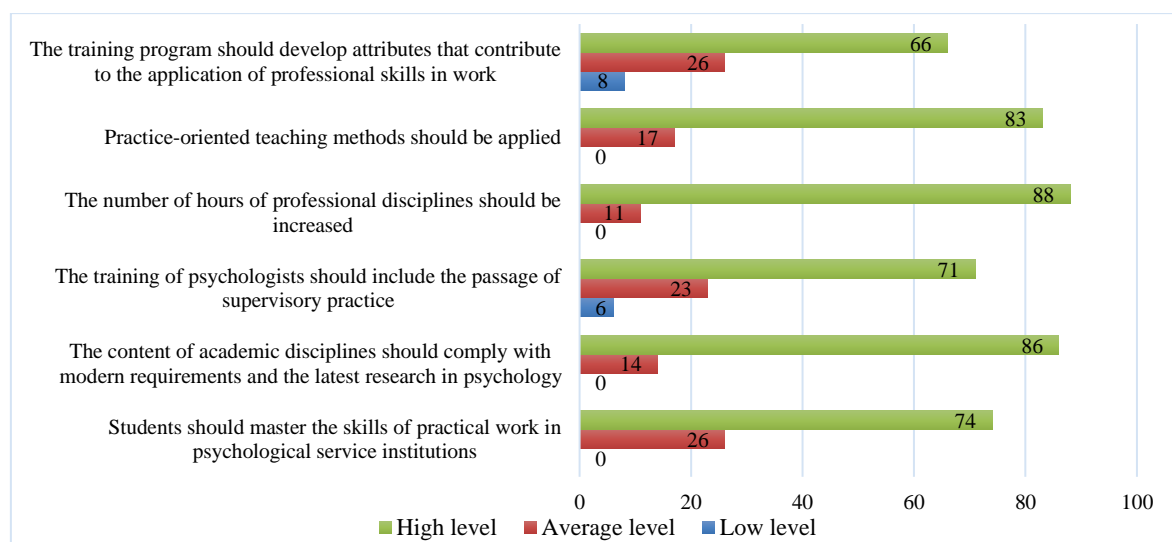


Figure 3. Results of teachers' survey

## 5. DISCUSSION

Higher education aims to satisfy the demand for high-quality professional training among both students and employers [33]. Since students are the main consumers, their opinions are particularly important in the development of educational programs and the organization of the educational process. Furthermore, in

connection with the changing economic and social conditions in the world and high competition in the higher education market, universities should improve their activities. One of the main indicators is the percentage of graduates employed at a particular university [34]. For a better indicator, it is necessary to define the attributes clearly that are applicable to employment [35], as well as the kind of training that improves the preparation for the employment of graduates.

In many countries (Germany, Australia, France), psychologists receive academic education at universities. The specialists study the basic theoretical and practical aspects of psychology [36]. The education includes courses in general psychology, developmental psychology, clinical psychology, assessment and diagnostic methods, theory and practice of counselling, and other specialized fields [37]. Accordingly, the present study identified the need for a profile study of some specific practices specifically at Toraigyrov University. In this case, it marked the beginning of the professional improvement of bachelor's skills at this university.

In contrast to the findings in our research, some psychologists emphasize the practical learning of all necessary attributes. Thus, the development of the qualities implies that a psychologist obtains practical experience through internships, workshops, work in clinics, or scientific research [38]. These activities allow psychologists to practice the acquired knowledge and skills in real situations and develop practical expertise for the most effective work in an educational institution [39]. Based on research, the study of psychology is an important element for teaching any academic subject since it facilitates communication in the context of any field [40]. The study showed that three groups of respondents are ready to take an active part in the development of educational programs and offer solutions for the organization of the educational process.

Students would like to devote more time not to theoretical training, but to solve real practical problems using their learning experience. This is supported by the study of Rosenkranz *et al.* [41]. The researchers developed tasks for the enterprise and students. The students emphasized the importance of including in the training program attributes that promote the use of professional skills in the workplace.

According to our research, psychologists have focused on several conditions for improving the training of psychologists [42]. Firstly, the conditions aimed at practice orientation should be taken into account. Secondly, the current demands of the job market for graduates should be considered when creating educational programs, and the course materials should reflect the most recent findings in the discipline of the chosen profession. Thirdly, psychologists, as well as students, noted the importance of developing attributes that contribute to a more successful application of professional skills [43].

Teachers identified more conditions aimed at improving the content of educational programs, teaching methods, and the content of academic disciplines. Based on the conducted survey on ranking, all three groups of respondents determined the most desirable attributes that graduate psychologists should possess: empathy and ethical principles. The answers of all three groups of respondents illustrate that the training of psychologists should include not only professional skills but also attributes. It is also necessary to rethink the organization of the educational process to improve employment opportunities [44].

## 6. CONCLUSION

This study presents data on the attributes of psychologists that are necessary for the successful application of professional skills. In addition, it describes the conditions that the university can create to improve the employability of students. The psychologist attributes were identified in the analysis of the Kazakhstani Professional Standard for the training of psychologists and international studies on this issue (from such countries as Germany, Japan, and Australia). The results formed the basis of the developed undergraduate educational program for psychologists at Toraigyrov University. The identified attributes were included in the learning outcomes of the educational program. Faculty members were able to identify ways to improve the quality of the teaching and learning process in higher educational institutions.

Additional research on this issue will reveal the impact of the teaching process on developing psychologist attributes and, in the future, on the employability of graduates. The current study aims to create the ground for an effective training program for future psychologists of Kazakhstan universities according to their modern needs. The scientific contribution of this paper is the systematization of teaching practices. In addition, considering the demands of the students, the study used relevant modern techniques. Future researchers may use the findings to create a practical training program for future psychologists in the context of modern information technologies. It can be VR, AR technologies, artificial intelligence, a case-based training program, and so forth.

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