

# Value Orientations of Students at the Kazakh National Women's Teacher Training University and their View Towards Mixed Education

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**Abstract:** Value orientations are fundamental in the development of young people as individuals. Values play a special role in shaping the behavior and attitudes of young people, have a significant impact on their goals and beliefs. The main focus of the study is the values and social issues of students at the Kazakh National Women's Teacher Training University. The University was established on August 15, 1944. In this research, we particularly define future goals of the students at Women's Teacher Training University, their opinion about the University and the learning process. The main purpose of this study is to assess the attitudes of students towards obtaining a mixed (joint) education. Mixed education, also known as blended learning, co-education (abbreviated as co-ed or coed), is an education in which male and female students study/learn together. The study involved 5 005 female students of all faculties at the undergraduate, graduate and postgraduate levels, as well as college students (University has its college) at Kazakh National Women's Teacher Training University. Survey dates: October 15, 2021 - November 15, 2021. In the course of the study, it was found that the value orientations of students are focused, first of all, on the priorities in the field of education, that is, the orientation towards obtaining a unique education in a prestigious university, the preference for free education; location of the university, favorable socio-cultural environment, the level of information and technical support of the educational process. In addition, expectations for the future are focused on getting a prestigious, interesting, high-paying job that matches individual abilities and opportunities. The results of the study obtained during the survey can be used to analyze the attitude of female students towards mixed education; to study the quality of the provision of university services; studying students' satisfaction with the educational process; studying the difficulties faced by students in the learning process; and to determine what opportunities provided by the university are used by the student for personal development and activity.

**Keywords:** Value orientations, Values, Youth, Students, University, Educational process, Gender education, Mixed education

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## 1. Introduction

The current stage of development of society, the individual and the state stimulates and determines the formation of new types of thinking. In the context of informatization of society and education, new opportunities appear to improve the effectiveness of the educational process. Society has undergone dramatic changes over the past ten years. The model of behavior and value orientations of modern society is changing. Education also cannot remain outside this process. The problem of developing young people's values, their structure and dynamics in a reformed society always remains relevant at all stages of society's life. Value orientations are fundamental in the development of young people as individuals. Values include a special role in shaping the behavior and activities of young people, values have a significant impact on the actions of young people and are reflected in goals, ideals, and beliefs.

Value orientations - is the attitude of the individual to material and spiritual goods, which are considered as objects, goals and means of meeting the needs of the group.

Each person has different value orientations and value systems. They change under the influence of internal attitudes, environmental conditions, including the socio-cultural environment of the university. At this stage of professional training the personality of the students is formed, their moral and professional qualities are improved, and the range of their values is determined.

The factors that form value orientations include material and economic; socio-psychological; socio-demographic (gender); age demographic; educational, etc.

Young people are most often a social group that indicate changes. They are prone to experiments, constantly changing their image, are more flexible (including ideas about gender norms and relationships) [Ioffe et al., 2020]. However, at present, the youth environment is heterogeneous, gender norms and the corresponding

roles can differ significantly in different social groups. Significantly increased the role of the subject of personality, manifested in the activity, independence, initiative of a person in professional, social and personal life, demonstrating at the same time a huge range of content of uniqueness, and their variability. That is what J. Butler called the structuring of similarity in acts of self-expression and self-presentation [Butler, 2000], later J. Kroger called this the illusion of similarity or inevitability [Kroger, 2007].

Kazakhstan is a large country, and there are contradictions in the development of the capital city and regions in terms of the specifics of socio-cultural, economic and educational conditions. We can assume that there are significant differences in the mentality of students living in big cities and smaller towns. The problem of youth is currently relevant in all aspects, however, there is incomplete elaboration of youth issues, absence of monitoring work, and also due to the fact that the views of young people are not asked and are not taken into account when considering important issues. Therefore, the Center for Social and Gender studies conducted a sociological study among students, undergraduate and graduate students of Kazakh National Women's Teacher Training University, in order to find out their opinions and thoughts.

The Kazakh National Women's Teacher Training University was founded on August 15, 1944 and ever since is educating only girls. It has become the "forge of teachers" and strives to improve the quality of educational services and research potential provided by one of the leading pedagogical (teacher training) universities in Kazakhstan. It is only university in Central Asia that provides education only for female students. After 1954, government was considering of closing the university several times, but the authorities decided to keep the university [Kazakh National Women's Teacher Training University, 2019]. However, over time, the question arose whether this university was needed only for girls, or whether boys could also be taught there. In this regard, in order to determine this opinion, the idea arose to conduct such a sociological study among students of this university.

In determining the significance of the study, the focus was on the social problems of students at the university, the definition of their goals and the strategies used to achieve these goals, as well as the study of important questions and opinions about the educational institution during the educational process at the university, defining opinions about the present and future of the university. The main purpose of the study is to assess the attitude of students to obtaining a mixed education of boys and girls at the university. It is planned to determine the directions for further development of the university by determining the opinions of students on these issues. In connection with modern global changes, by defining the purpose of the study, the value orientations of young people studying at the university and their opinions on important issues related to the university will be identified, and recommendations will be developed to improve the quality of education and develop infrastructure in Kazakh National Women's Teacher Training University.

## **2. Literature Review**

### **Value orientations of students of various universities of the CIS countries and the world**

Various studies have been carried out on this topic of value orientations of students. In the literature, attention was paid to various aspects related to the study of moral ideals, they are reflected in the work of H.A. Berdyaeva, S.N. Bulgakov, F.M. Dostoevsky, I.A. Ilyina, P.N. Milyukova, V.V. Rozanova, V.S. Solovyova, P.A. Sorokina and others. The psychology of value orientations was studied in the works of B.G. Ananyeva, L.I. Bozhovich, B.I. Dodonova, A.G. Kovaleva, K.K. Platonova, S.L. Rubinstein, T.G. Sukhanskaya and others. A significant contribution to the foundation of the theory of values orientations was made by the sociologists W. Thomas and F. Znanetsky, who developed the concept of "social value". G. Rickert and M. Weber substantiated the method of "value relation". On the other hand, recent research focuses on the value orientation of university students, the transformation of value orientations of students; generational differences in value orientations towards higher education, etc. Thus, according to Slávka Čepelová and Silvia Barnová, along with a value orientation, focusing on the values of knowledge, education and economic aspects leads to an improvement in the quality of life; a better quality of life is determined by a value orientation focused on areas of knowledge, education, and economic values [Čepelová, Barnová 2020].

Value orientation research raises important issues presented by research on a range of topics, including the content of student value orientations that are transformed by virtual behaviors (Akhmadiyeva et al. 2016). The sensitivity of orientations at the level of both generations to the influences of gender and status (Meier 1970), assessments of students' views on the role of the online learning environment in shaping the value orientations of university students (Shabden et al. 2022).

The analysis of value orientations, at the cultural level, are analyzed in the studies of Geert Hofstede. Hofstede carried out his studies in the 1960s and 1970s and examines cross-cultural differences. Hofstede developed the

theory of cultural dimensions, that was based on value orientations of national cultures (Hofstede 1991; Hofstede 2014). Today, Hofstede's cultural values are used in the field of business, management, and organizational psychology (Soares et al. 2007; De Mooij, Hofstede 2010; Dubina, Ramos 2019). Hofstede's cultural dimensions can be taken into account in the analysis of value orientations of university students. Some studies show that the study of value orientations at the individual level can be helpful in examining the university students' personal and professional development (Bogomaz, Atamanova 2017).

The social-cognitive approach emphasizes the important role of students' beliefs and their interpretations of actual events, and the role of the achievement context for motivational dynamics (Weiner 1992; Pintrich et al. 1993; Wigfield, Cambria 2010). Social cognitive models of achievement motivation have several motivation constructs that can be organized in two broad categories: students' beliefs about their capability to perform a task, also called expectancy components, and their motivational beliefs about their reasons for choosing to do a task, also called value components (Pintrich et al. 1993). The literature on motivation constructs is extensive (Wigfield, Cambria 2010). In order to gain a comprehensive picture of the relation between students' motivation and their academic achievement, we can look at a traditional personality model of motivation, the theory of the achievement motive (McClelland et al. 1953). This model shows that students' motivation is conceptualized as a relatively stable trait. Students' goal orientations are broader cognitive orientations that they have toward their learning and reflect the reasons for doing a task (Dweck, Leggett 1988). McClelland et al. distinguish the achievement motives hope for success and fear of failure (McClelland, Atkinson 1953). In addition, the need for achievement is theorized to be domain-general and, therefore, assessed without referring to a certain domain or situation (Steinmayr, Spinath 2009).

### **3. Method**

#### **Questionnaire design**

*Method.* On the basis of the designed questionnaire, the method of surveying students was used, that is, a quantitative research method, using descriptive statistics.

*Research coverage.* Sociological research conducted on the basis of Kazakh National Women's Teacher Training University.

*The target audience.* Undergraduate and graduate students of the Institute of Pedagogy and Psychology; Institute of the Kazakh and world languages; Institute of Physics, Mathematics and Computing; Institute of Natural Sciences; Institute of Social Sciences, Humanities and Art; students of the College of Professional Education.

*Total number of respondents:* in total 5005 students, undergraduates and graduate students (1.2 courses), and college students of all faculties of the university took part in the study.

*Research tool.* The questionnaire was compiled by specialists from the Center for Social and Gender studies at Kazakh National Women's Teacher Training University. An anonymous survey was conducted based on a stratified random sample.

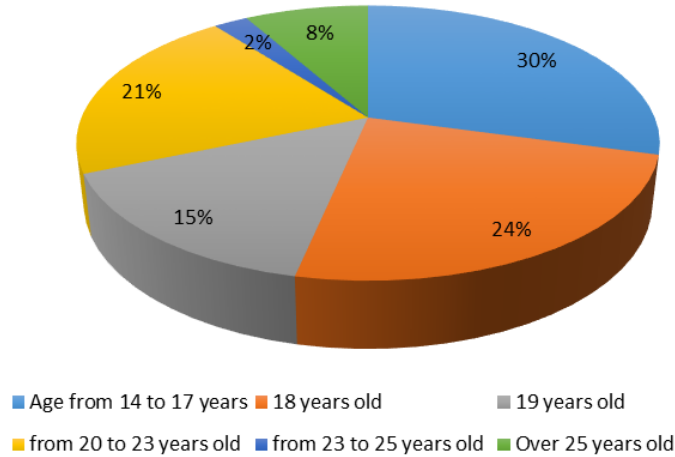
Online questionnaire was used to collect the data. Survey responses were automatically collected in Google Forms and IBM SPSS 22 (Statistical Package for the Social Sciences) was used to process the overall numerical information. This study do not require formal ethical approval because an anonymous survey was used to collect data. Questionnaires in Kazakh and Russian languages were developed.

*The number of questions in the questionnaire is 17.*

*Survey Dates:* October 15, 2021 - November 15, 2021.

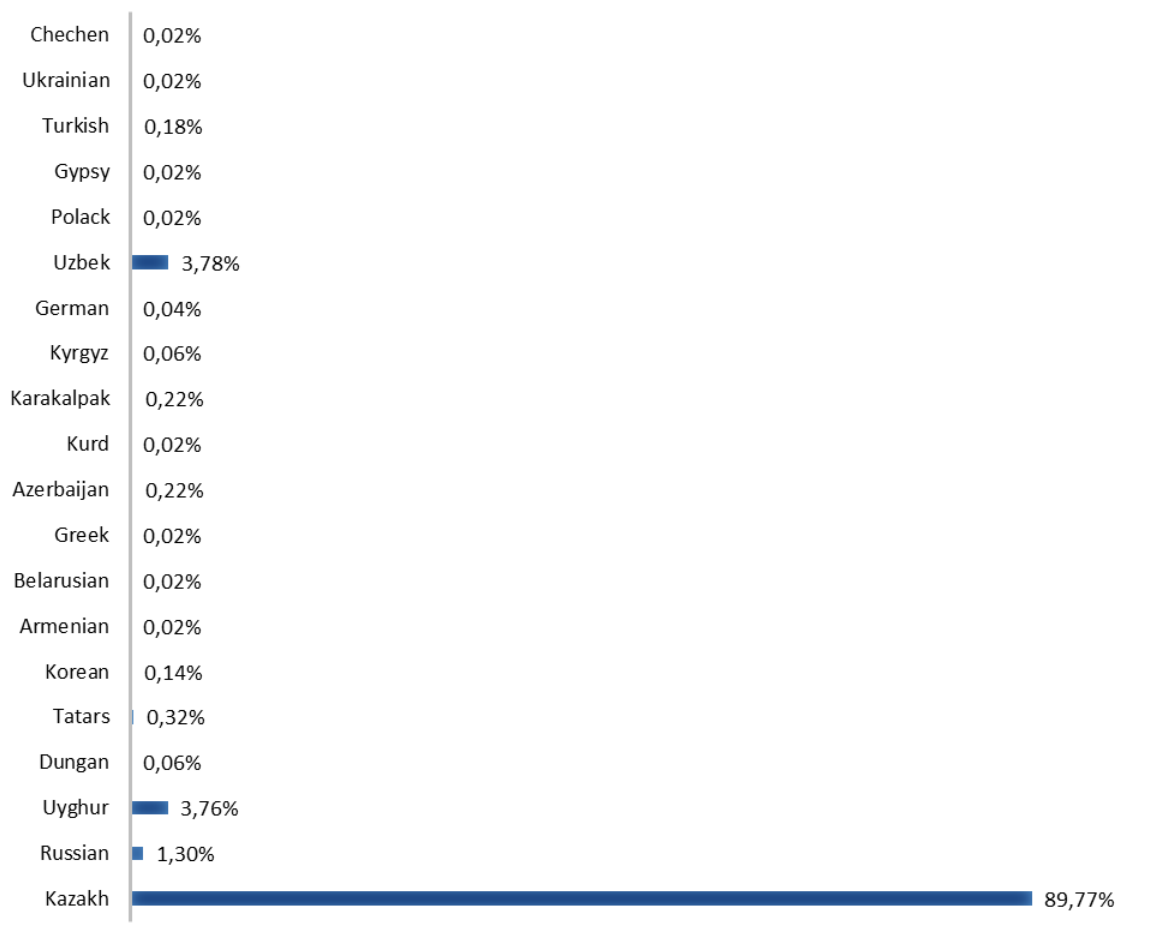
### **4. Results and Discussion**

Demographic data contains accurate information about the age, nationality, place of birth, status of settlements, marital status, financial situation of the respondents' families. The study involved 5005 respondents – undergraduate, graduate students, and college students of the university. In percentage terms, the age groups are distributed as shown in Figure 1.



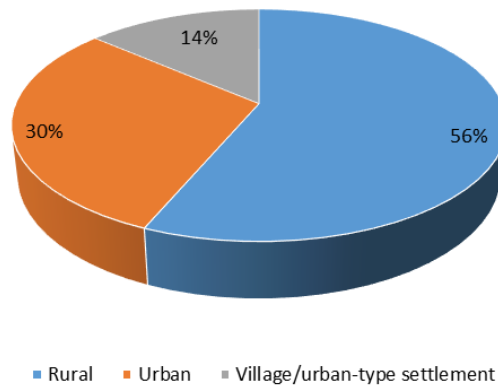
**Figure 1: Age of Respondents**

In the course of the study, an analysis of students was carried out according to national characteristics. Respondents' answers about their nationalities were the following: 89.77% - Kazakhs, 1.30% - Russians, 3.76% - Uighurs, 0.06% - Dungans, 0.32% - Tatars, 0.14% - Koreans, 0.02% - Armenians, 0.02% - Belarusians, 0.02% - Greeks, 0.22% - Azerbaijanis, 0.02% - Kurdish, 0.22% - Karakalpaks, 0.06% - Kyrgyz, 0.04% - Germans, 3.78% - Uzbeks, 0.02% - Polish, 0.02% - Gypsies, 0.18% - Turkish, 0.02% - Ukrainians and 0.02% - Chechens (Figure 2).



**Figure 2: Nationality of Respondents**

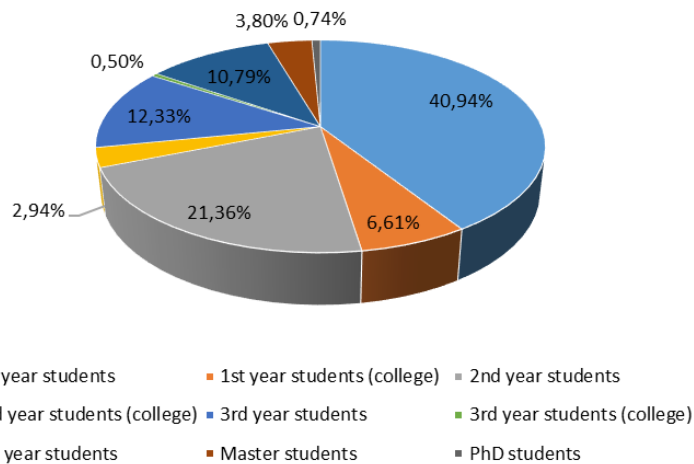
The majority of respondents (56%) are from the rural areas. Thirty percent of the students are from the cities (Figure 3).



**Figure 3: Place of Settlement of the Respondents**

In addition, some factors determining the choice ask the following questions.

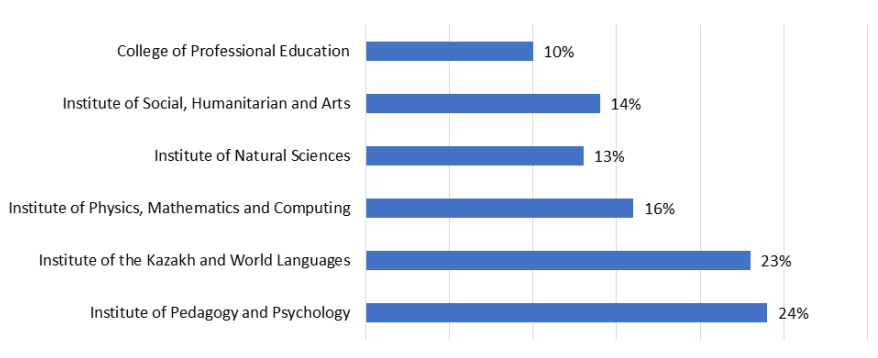
The research covers respondents studying at all levels of education: from undergraduate 1-4 courses to Master and PhD students. Particularly, 1st year students - 40.94%, 2nd year - 21.36%, 3rd year – 12.33%, 4th year bachelor's degree - 10.79%, master's degree - 3.80%, PhD student – 0.74%, 1st year (college) - 6.61%, 2nd year (college) - 2.94%, 3rd year (college) - 0.50% (Figure 4).



**Figure 4: Distribution of Respondents by Course of Study**

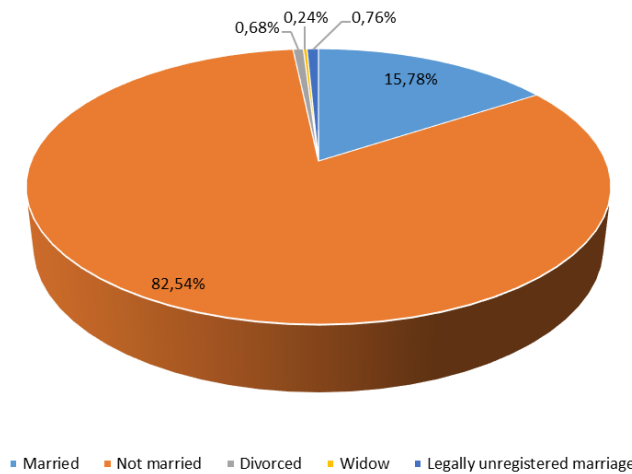
The overall distribution of respondents by institutes and colleges is presented as follows (Figure 5):

- Institute of Pedagogy and Psychology - 24%;
- Institute of the Kazakh and world languages - 23%;
- Institute of Physics, Mathematics and Computing - 16%;
- Institute of Natural Science-13%;
- nstitute of social sciences, Humanities and Art - 14%;
- College of Professional Education -10%.



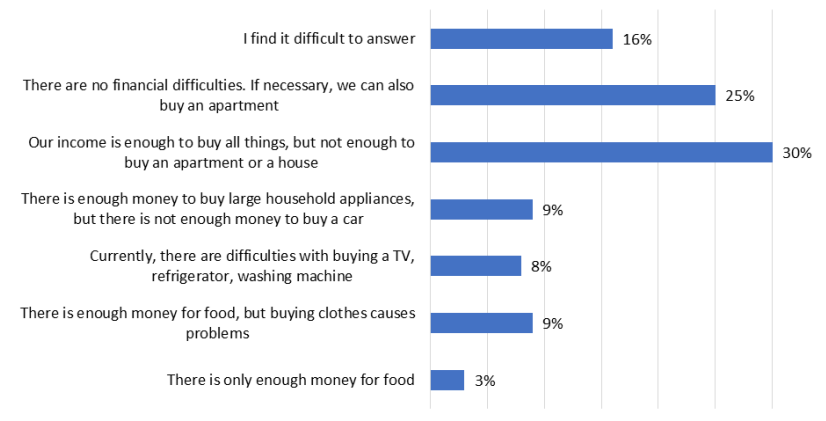
**Figure 5: Distribution of Respondents by Institutes and College**

82.54% of respondents indicated that they are not married, 15.57% are married, 0.68% - divorced, 0.24% - widows, 0.76% - were in a legally unregistered marriage (Figure 6).



**Figure 6: Marital Status of Respondents**

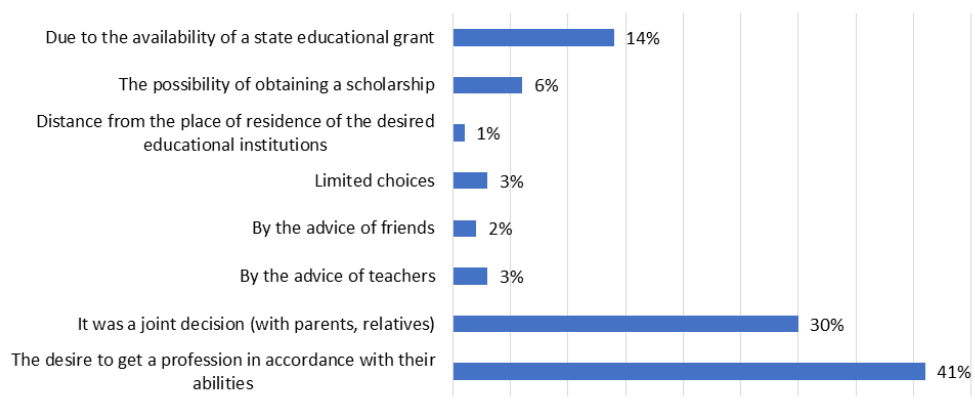
The analysis of the financial situation of the families of the respondents was based primarily on the personal assessment of the participants. Three percent of respondents said that “there is only enough money for food”; 9% of respondents claimed that “there is enough money for food, but buying clothes is difficult”, 8% - “currently there are difficulties with buying a TV, refrigerator and washing machine”, 9% - “we have enough money to buy large household appliances, but not enough money to buy a car”, 30% - “our income is enough to buy all things, but not enough to buy apartment or a house”, 25% - “there are no financial difficulties, if necessary, we can also buy an apartment” (Figure 7). Sixteen percent of the respondents found it difficult to answer and attribute themselves to one of the listed groups.



**Figure 7: Financial Situation of Families of Students**

Choosing a university is an important aspect in a young person's life. Some do it consciously, while others do it unconsciously due to a combination of external circumstances. The choice of an educational institution and a specialty in Kazakhstan leads to objective and subjective problems. The main objective problems are unemployment among graduates who are not in demand in their specialty, as well as profile fluctuations of graduates from law and economics schools. The subjective problem is the unwillingness to work in the specialty, since the profession was chosen incorrectly when enrolling to the university.

The study showed that the main motivation of the interviewed respondents to enroll to the Kazakh National Women's Teacher Training University was "the desire to have a profession in accordance with their abilities" (41%). 30% of students indicated the reason for choosing this university - "it was a joint decision with parents and relatives". Other relatively significant criteria are "by the advice of teachers" (3%), "by the advice of friends" (2%), "limitation of choice" (3%), "remoteness of the desired educational institutions from the place of residence" (1%), "the possibility receiving a scholarship" (6%), and "due to availability of educational state educational scholarship" (14%) (Figure 8).



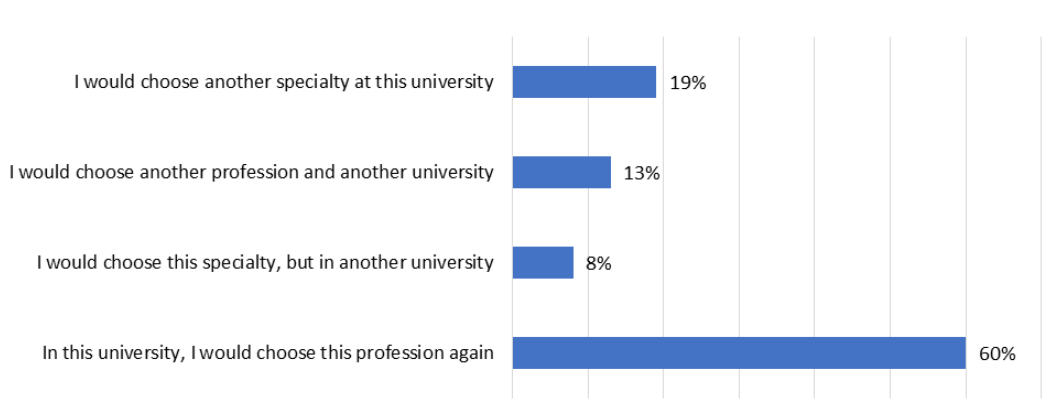
**Figure 8: Reasons for Respondents' Choice of Kazakh National Women's Teacher Training University**

In a market economy, the choice of a future profession for young girls is the most important task and reflects the actions of many motives of the individual. They arise from various needs and interests formed in public and private life.

Awareness of the choice, satisfaction with the chosen profession are considered in the answers:

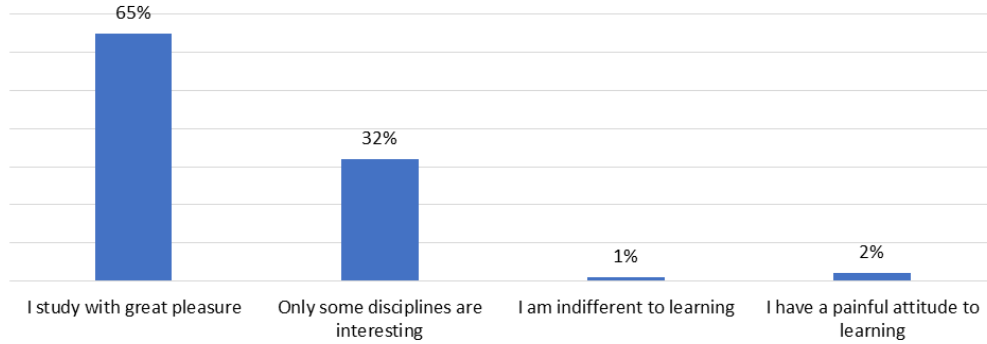
- "I would choose this profession again in this educational institution" - 60%;
- "I would choose this specialty, but in another university" - 8%;
- "I would choose another specialty and another university" - 13%;
- "I would choose another specialty in this university" - 19% (Figure 9).

Particular attention should be paid to the answers of 13% of respondents that would choose another profession and another university. Because such an answer suggests that students are not only not satisfied with their choice of profession, but also with the university.



**Figure 9: Opinions of Students About the Opportunity to Re-Select a Specialty**

The question of the attitude of students to learning is directly related to the quality training of future specialists. Misconceptions about the profession, the quality of education in the univeristy, inadequate workload in subjects (too much or too little), attitude towards independent work, development of one's own skills in the specialty, all these form attitudes towards education and profession. The results of the survey showed that the statement “I study with great pleasure” was supported by 65%, 32% of students answered that they were only interested in certain subjects, 1% were indifferent to learning, and 2% have painful attitude to learning (Figure 10).



**Figure 10: Respondents' Attitude to Study**

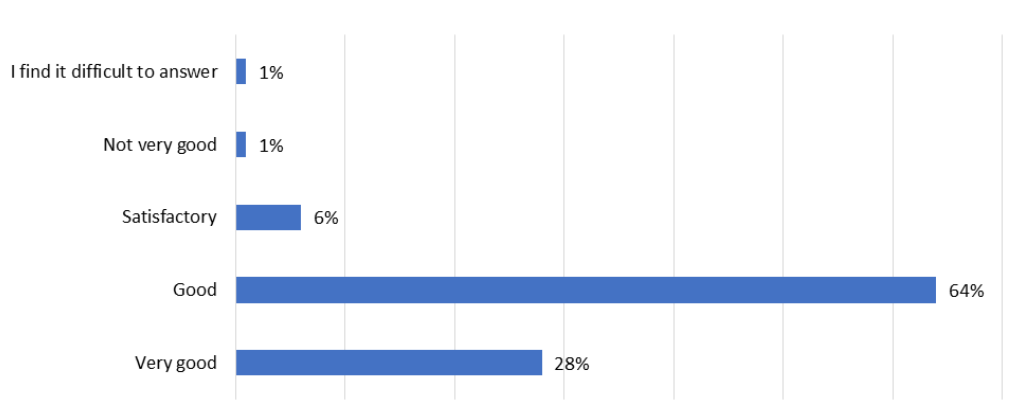
At present, the issue of academic performance is especially relevant, as it is directly related to the quality training of the future specialist.

The reasons for the student’s poor performance in the classroom are the lack of motivation to learn, the inability to learn, the inability to study well, the wrong choice of profession and, as a result, the loss of motivation to learn, etc.

Poor academic performance can negatively affect the future both on the person himself and on the economy and society as a whole.

In this survey, we relied on the assumption that the future profession is chosen correctly, that the students like their majors and are satisfied with their studies. 64% of respondents answered that their academis performance is “good”, 28% answered that their performance is “very good”, 6% answered “satisfactory”, 1% answered “not very good”, and 1% find it difficult to answer (Figure 11).

The results of the survey showed that students with good academic performance have a special motivation for learning. Their success is in good organization of the learning process, dedication of time for learning at home and at the university, and using additional literature along with compulsory literature. Another important key to success is the constant desire for self-development.



**Figure 11: Academic Performance of Students at the University**

Upon graduation, 67% of respondents are sure that they will find a job in their specialty, they believe that the profession of a teacher is always in demand and it will not be difficult to find a job in any educational institution in Kazakhstan, and 11% doubted they would find a job in their specialty. 17% are sure that they will find any job, but not in their specialty. 21% of respondents are skeptical about finding a job that meets their requirements.

21% of the respondents hope for help from their parents and relatives (Figure 12). According to the survey, the majority of respondents will work in their specialty after graduation.

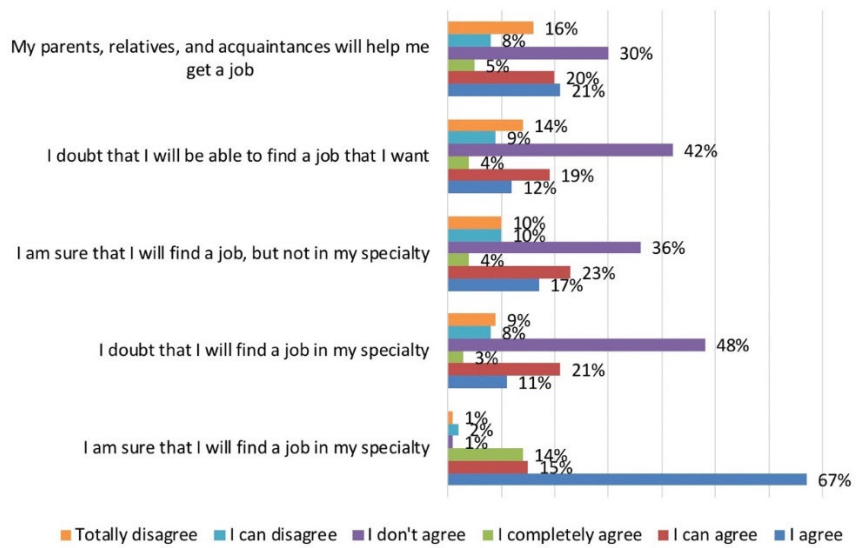


Figure 12: Students' Assessment of Employment Opportunities After Graduation

And the final topic of the survey is about the attitude of students at Kazakh National Women’s Teacher Training University to the studying with boys (blended learning).

The question of the advantages and disadvantages of joint and separate education is not only a psychological and pedagogical, but also a socio-anthropological issue.

In this survey authors tried to analyze the specifics of modern gender education, its role in shaping the gender culture of society.

The degree of satisfaction with the university is reflected in the following respondents' statements about why they have decided to study at Kazakh National Women’s Teacher Training University:

- there is an individual approach for students (33.91%);
- financial aid for students (state and internal scholarships) (32.03%);
- encouragement of self-study (15.36%);
- university is equipped with a modern library (7.73%);
- the ability to independently choose the training program (5.65%);
- support for foreign students (5.31%) (Figure 13).

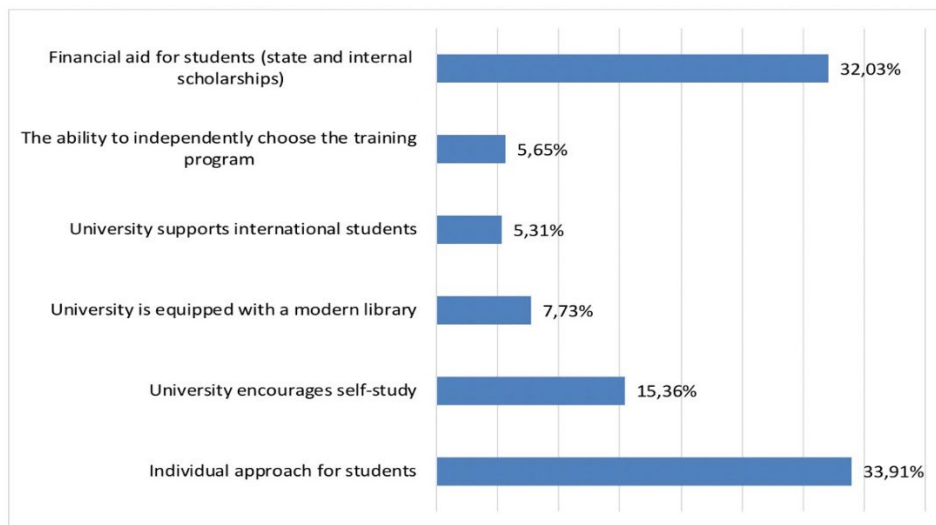


Figure 13: Reasons why Students Choose to Study at Kazakh National Women’s Teacher Training University

Gender education implies gender differences in features of physical and mental development and related problems in learning. The respondents answers about the question if they want to study with male students was the following: 39% of respondents agreed that they would like to have a blended education in Kazakh National Women's Teacher Training University, 21% state that they would rather disagree, 14% have neutral point of view, and 25% did not think about blended (mixed) education (Figure 14).

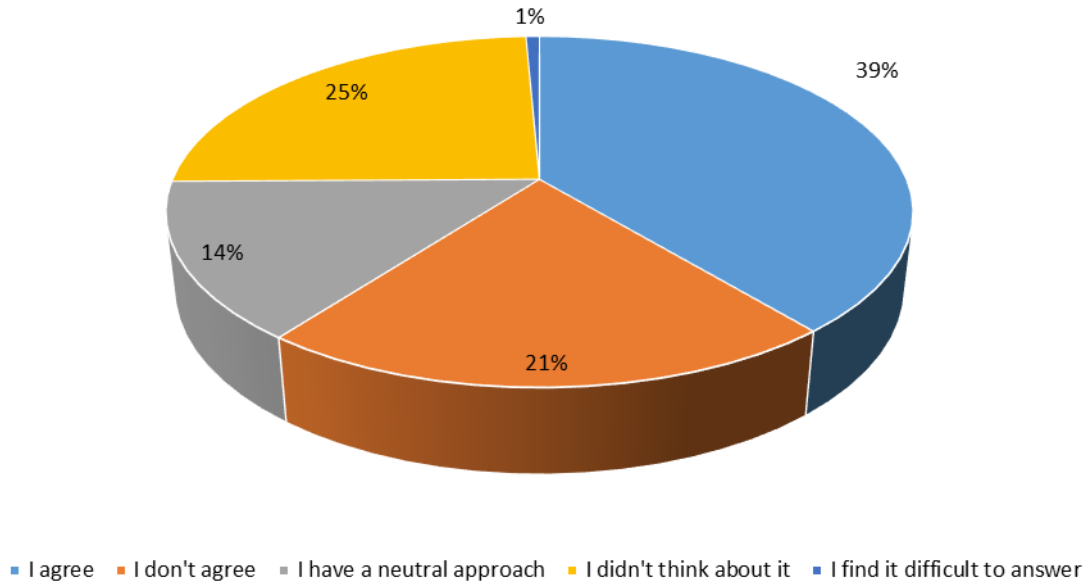


Figure 14: Respondents' Opinion About Having Male Students at the University

The survey results showed that 56% of students disagree with this statement "Will the university lose its uniqueness if both female and male students study at the university?", and 44% agree (Figure 15).

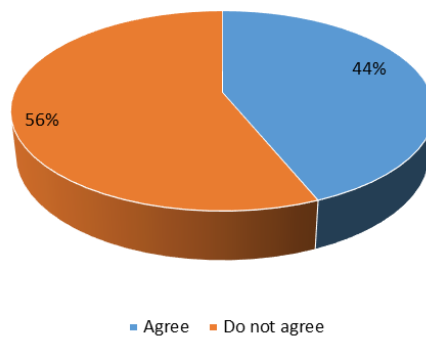


Figure 15: The Students' Views on the Question: "Will the University Lose its Uniqueness if Both Female and Male Students Study at the University?"

Analyzing the results obtained, we can conclude that the student understands the importance of higher education, has a strong attitude to entering a university. The student also appreciates such qualities as responsibility and good breeding, they are aimed at achieving their goals and obtaining the necessary knowledge (this is evidenced by rather high values - such means as strong will and self-control, courage in defending their views).

The data of the conducted research as a whole show the value of knowledge and education. Education is considered, on the one hand, as a factor in raising the social status and quality of life, a means of career development and improving material well-being. On the other hand, as a factor in the development of the individual, which allows one to join the achievements of culture and realize the creative potential of the individual.

## 5. Conclusion

As a result of the study, the following conclusions can be drawn:

The most important values for the respondents are professional, intellectual, family, social and financial values.

Value orientations that determine a person's life goals form the most significant vectors of their further social development.

Among the reasons why the respondents chose Kazakh National Women's Teacher Training University are "the desire to get a profession in accordance with their ability" - 41%; and "it is a joint decision (with parents, relatives)" - 30%. Based on these answers, we can conclude that the majority of young people come to the university in order to obtain a specific specialty.

It also turned out that 60% of respondents would choose this specialty again at Kazakh National Women's Teacher Training University.

Students highly appreciated the professionalism and individual methods of teaching (33.91%) in Kazakh National Women's Teacher Training University, noting that the main difference of the university is that it sets the goals of quality education for students.

Authors also found that 67% of respondents noted that they fully agreed with the statement "I am sure that I will find a job in my specialty". Therefore, students have positive about future employment opportunities.

One of the main objectives of the study was also identifying the opinions of university students about blended education (studying with boys). 39% of respondents said they would like to study with male students at the university, and 25% are against. Students support the idea of blended education in Kazakh National Women's Teacher Training University.

In addition, 44% of respondents claimed that the university will lose its uniqueness and status if there will be a blended education (with male students), and 56% of respondents do not agree with this statement. Respondents also noted that the university should be renamed and have common name, without specification that it is a women's university. And if in the future male students will be taught at this university, then it will be possible to introduce new educational courses and majors in STEM, in order to attract more talented boys and girls.

## References

- Akhmadiyeva, R. Sh. and Shagiyaeva R. V., Ganieva Y. N., Zulfugarzade T. E., Ezhove S. G. and Komarova N. M. (2016) "Transformation of Students Value Orientations: Behavioral Virtual Models". *International journal of environmental & science education*, VOL. 11, NO. 16, 9144-9154.
- Bogomaz, S. A., and Atamanova, I. V. (2017) "Assessment of perceiving the urban and university environment by measuring values". In A. L. Zhuravlev, V. A. Kol'tsova (Eds.), *Fundamental and applied research of modern psychology: Results and development prospects* (pp. 646-651). Moscow: Institute of Psychology RAS.
- Butler J. (2000) "Gender anxiety". *Anthology of gender theory*. Ed. E. Gapova, A. Usmanova. Minsk: Propylaea, pp. 317-318.
- Čepelová S. and Barnová S. (2020) "Quality of Life and Value Orientation of University Students in Middle Adulthood". *Acta Educationis Generalis*. Volume 10, Issue 1. DOI: 10.2478/atd-2020-0005.
- De Mooij, M. and Hofstede, G. (2010) "The Hofstede model: Applications to global branding and advertising strategy and research". *International Journal of Advertising*, 29(1), 85-110. <https://doi.org/10.2501/S026504870920104X>.
- Dubina, I.N. and Ramos, S. D. (2019) "An effect of national culture on creativity, innovativeness and entrepreneurship". *Management in Russia and Abroad*, 1, 91-101.
- Dweck, C. S. and Leggett, E. L. (1988) "A social-cognitive approach to motivation and personality". *Psychol. Rev.* 95, 256-273. doi: 10.1037/0033-295X.95.2.256.
- Hofstede, G. (1991) "Cultures and organizations: Software of the mind". London, New York: McGraw-Hill.
- Hofstede, G. (2014) "Dimensionalizing cultures: The Hofstede model in context". *Language, Communication, and Social Environment*, 12, pp. 9-49.
- Ioffe E.V. and Erofeeva M.A., Klyuchko O.I., Chekalina A.A., Sukhareva N.F., Samosadova E.V. (2020) "Gender Transformations in the Perceptions of Russian Student Youth". *Woman in Russian Society*. no. 1., pp. 55-69. DOI: 10.21064/WinRS.2020.1.5.
- Kazakh National Women's Teacher University (2019) "History of the University".
- Kroger J. (2007) "Why Is Identity Achievement So Elusive?" *Identity*. 7: 4, pp. 331-348. DOI: 10.1080/15283480701600793.
- McClelland, D. C. and Atkinson, J., Clark, R., Lowell, E. (1953) "The Achievement Motive". New York, NY: Appleton-Century-Crofts.

- Meier Harold C. (1970) "Generational Differences in Value Orientations toward Higher Education". Source: *Sociology of Education*, Vol. 43, No. 1, pp. 69-89.
- Meruyert, S. and Aigul, B., Aidyn, D., Laura, S. & Esenbaevnae, K.G., (2022) "Impact of university E-Learning environment on value orientations of students. *World Journal on Educational Technology: Current Issues*". 14(2), 473-483. <https://doi.org/10.18844/wjet.v14i2.6975>.
- Pintrich, P.R. and Marx, R.W., Boyle, R.A. (1993) "Beyond cold conceptual change: the role of motivational beliefs and classroom contextual factors in the process of conceptual change". *Rev. Educ. Res.* 63, 167–199. doi: 10.3102/00346543063002167.
- Soares, A. M. and Farhangmehr, M., Shoham, A. (2007) "Hofstede's dimensions of culture in international marketing studies". *Journal of Business Research*, 60(3), 277–284. <https://doi.org/10.1016/j.jbusres.2006.10.018>.
- Steinmayr, R. and Spinath, B. (2009). "The importance of motivation as a predictor of school achievement". *Learn. Individ. Differ.* 19, 80–90. doi: 10.1016/j.lindif.2008.05.004
- Weiner, B. (1992) "Human Motivation: Metaphors, Theories, and Research". Newbury Park, CA: Sage Publications.
- Wigfield, A. and Cambria, J. (2010) "Students' achievement values, goal orientations, and interest: definitions, development, and relations to achievement outcomes". *Dev. Rev.* 30, 1–35. doi: 10.1016/j.dr.2009.12.001.