Opportunities for development of information competence of students in universities

Modern pedagogical education is aimed at improving future specialists’ professional competence, competitiveness, self-realization and most importantly, at providing them opportunities to do research and develop their knowledge. In this case, one of the main tasks of the educational institution is to train the future specialist to learn and study, to be able to navigate in the constantly changing flow of information, to think critically and creatively. In the rapidly developing information society, information competence is undoubtedly one of the most necessary capabilities. This is because informational competence has an important role in forming the individuality of the future specialist, in their personal experience when fulfilling professional requirements and in improving their professional qualifications. The article considers the opportunities of developing the information competence of future teacher-psychologists in universities. That is the possibilities and the role of the content of elective subjects, student centers, educational institution’s newspaper and official social networks as means of mass media in developing future specialists’ information competence. Domestic and foreign scientific works within the scope of the topic were studied, data were compared and systematized. Based on the analysis of the results of the student survey method, conclusions were made regarding the development of information competence of students in higher education institutions, and recommendations for the development of information competence of future teacher-psychologists were given.

Keywords: competence, information competence, mass media, media education process, Internet, official social network, student centers, the university newspaper.

Introduction

Modern globalization and the development of new technologies have changed society and set new challenges for higher education. The use of mass media products, especially the Internet, television, and new technologies, is becoming more and more important. Also, they are widely used in science and educational activities, in other spheres of public life, introducing social changes and providing new qualities and dimensions of personality development.

The use of modern methods of teaching takes an important place in the educational process of the university and allows to increase the efficiency of education, to form the professional competence of students and to gain experience and develop creative potential. Considering the trends of the global integrity of the information process, media education can be said to be a complex educational field aimed at mastering information competence of students.

The process of media education contributes to the formation of skills that constitute information competence and forms intellectual skills responsible for the ability to work with incoming information, to analyze, systematize, and generalize it. While working with information of different content, students learn to communicate with a group of people, to conduct a competent dialogue, to defend their views with information obtained from reliable sources of information.

The profession of the future teacher-psychologist has a wide scope of work and a great contribution to the society. As a professionally trained specialist they can work in various types of educational institutions, i.e. preschool education and training system; comprehensive secondary school; professional and specialized schools; gymnasiums, lyceums; as a teacher-psychologist — in colleges; as a specialist — in boarding schools and orphanages, administrative bodies (Ministry of Education of the Republic of Kazakhstan, Ministry of Science and Higher Education of the Republic of Kazakhstan, regional, in districts, akimats), and in other institutions that need a teacher-psychologist. Thus, it is important not only to become qualified specialists, but also to develop informational competencies in the age of information technologies. The development of information
competence in the process of media education is the only real way to expand the scope of professional training of future specialists and increase its quality.

According to Nizameeva A.M., the student's information competence includes:

a) Necessary and sufficient informational level of computer literacy, desire to begin self-education and self-improvement;

b) Creative ability within the framework of using telecommunication tools and information technologies and the skill level achieved by the student in the process of professional formation;

c) The humanitarian component of information opportunities and the decisive role of socio-cultural experience;

d) Ability to use modern computer technologies and professional services to find solutions in critical situations.

Information competence influences the development of adaptability, mobility, constructiveness, integrativeness, the expansion of professional and humanitarian activities, the self-determination, self-education, development of cultural creativity, as well as social and professional activity [1]. And competence can be called as a list of available capabilities, actions, processes, and responses to effectively fulfill various job requirements [2]. Also, it can be regarded as the measure of knowledge, skills and abilities that can be clearly defined, the actions that a person can perform in a certain professional context, and the resources that they can master [3].

Today, information needs and ways to search for information have become an important part of a student's life. It is well known that the last two decades have seen rapid social changes all over the world due to information overload. The very rapid emergence and obsolescence of information creates the necessary continuous process of updating information [4].

In recent years, foreign scientists as L. Masterman, R. Kubey, K. Tyner, A.V. Fedorov, I.V. Zhilavskaya, I.V. Chelysheva, E.A. Stolbniyova, N.V. Zmanovskaya and others contributed to the development of media education. Among domestic scientists, P.B. Seiitkazy, L.S. Akhmetova, E.Zh. Masanov, A.A. Tashetov, A.K. Abdirkhenova, G.S. Tazhenova, N.B. Serikbaeva greatly contributed to the research and development of media literacy, media culture, media competence, the role of mass media in the educational process. We see that the scope of the concept of media education in the works of scientists is focused on helping students to adapt to the world, learn media culture, media language and analyze media information.

The works of M. Pinto, N.P. Tabachuk, E.F. Morkovina, M.V. Romanova, F.Kh. Khabibullin, F.K. Tubeeva, and from domestic researchers, G.I. Muratova, S.N. Isabaeva, A.D. Maimataeva and others can be used in determination of the meaning and content of the concept of information competence of the student, to analyze it based on various theoretical conclusions. Their studies define the importance of continuous professional development in forming students’ information competence, as they, including education, skills, values are crucial in managing real life situations and fulfilling professional search.

However, analyzing the researched works within the topic, it is noticed that although there are individual research works on the formation of media education, media competence and media culture, as well as on the information competence of students, there is a lack of scientific works aimed at the development of information competence of students in the process of media education. This leads to the fact that there are contradictions between the growth of society's requirements for the level of training of professionals and the level of information competence of graduates in the process of media education, and it is necessary to pay special attention to the development of information competence of future teacher-psychologists and determine the opportunities that exist.

**Experimental**

The problem of the need for professionally competent, competitive modern specialists is reflected in several important legal documents and state programs in the country, and the rules and recommendations for increasing the information competencies of future specialists, their professional activities and self-development opportunities, and revitalizing work in this direction are defined.

In the document “State mandatory standards of higher and post-higher education” approved by order No. 2 of the Minister of Science and Higher Education of the Republic of Kazakhstan dated July 20, 2022 formation of worldview, civic and moral positions of a competitive future specialist based on mastering information and communication technologies, self-improvement, orientation to professional success, development of information literacy, self-development and formation of lifelong learning skills are discussed. A student who has mastered a course evaluates properly all situations occurring in the social and industrial spheres, demonstrates personal and professional competitiveness, synthesizes new knowledge, uses various types of information and
communication technologies in their personal activities as internet resources, information search, storage, processing; it is shown that they can use cloud and mobile services for protection and distribution, have the skills of quantitative and qualitative analysis of social phenomena, processes and problems [5].

Head of State K-Zh.K. Tokaev in his address to the people of Kazakhstan on September 1, 2022 “A fair state. One nation. Prosperous society” said: “A hardworking person, a professional specialist should be the most honored person in our country. Such citizens develop our country. It is better for young people to try to master the ins and outs of a specific profession. There is always a demand for a master of one’s field. The younger generation should be able to compete not only in Kazakhstan, but also in other countries”. He openly stated the importance of education, hard work, professional competence, and competitiveness [6].

In the 5th task of the national project “Quality education “Educated nation” for 2021–2025, it was considered “Increasing the international image and competitiveness of Kazakh higher education institutions”. Especially, the development of the contribution of higher educational institutions implementing international education programs and academic exchanges with foreign colleagues is put forward. The main goal of this proposed project is to improve the quality of education and competitiveness of students at all levels of education in the country [7].

It is known that the development of information competence of students in universities is implemented based on mastering the best practices of the world education. In this regard, educational programs in higher education institutions are adjusted to international requirements, and state standards of education are brought into a new system to meet the requirements of the labor market currently.

The importance of the content of the development of information competence in the process of media education of future teachers is closely related to the term’s media literacy, media culture, media competence.

Media education is a set of knowledge that enables one to work competently with mass media, critically perceive information, and create one’s own media message [8]. By increasing the level of media competence, it is possible to improve a person's cognitive, emotional, aesthetic, and ethical perception, interpretation and analysis of media information throughout one’s life [9].

Media culture includes a set of behavioral rules for the future specialist in the information society, norms, and ways of interacting with the mental system, methods of using telematics, global and local information system tools [10].

Thus, in the process of media education, the following features of the organization of education for the development of information competence of students are considered:

- The concept of media education should be in the structure of the training course;
- Effective use of media education components during independent work of students;
- The ability to use media education components interchangeably depending on the course and lesson content;
- Taking into account the individual characteristics and abilities of each student during the lesson as well as when assigning tasks to the student's own work;
- Ensuring that students’ knowledge about modern technical tools and mass media products is relevant and up-to-date;
- Considering the organization of measures for the development of the level of information competence of students in their extracurricular time in university.

Competencies and learning outcomes of students are shown in the passport of the educational program at the educational institution. That is, informational and analytical competencies include: research, systematic description, explanation, mastery of current issues of modern education; the ability to process new knowledge, make predictions, make rational decisions by analyzing the received information, and systematically analyze information; the ability to see the psychological and pedagogical components of the problems arising during professional activity, to carry out quantitative and qualitative analysis. Informational and communicative competencies include: self-searching, sorting, organizing, presenting, modeling and designing of information, implementation of activities in the field of professional activities by mastering information and communication tools; can be attributed to the ability to freely and qualitatively express one’s judgments.

According to the data of the Ministry of Science and Higher Education of the Republic of Kazakhstan in the 2022-2023 academic year, there are 120 universities in the country [11]. We found out that 38 of them train specialists on the 5B01103 “Pedagogy and Psychology” educational program. According to the content of the educational program and the catalog of elective subjects presented by the websites of the universities and univision.kz, the opportunities for developing information competence of students in the process of media education were reflected in several subjects.
The subject “Information and communication technologies” is a mandatory educational component in accordance with the “State mandatory standard of higher and post-graduate education”. And we found out that “Innovative technologies in education” represents 24% in the program, “Digital technologies in education” — 42%, “Technologies of distance education” — 32%. And it was known that the subject “Media pedagogy” makes up 21% of the training course.

In the age of information and technology, we see that educational institutions prioritize future specialists’ mastery of information and communication technologies, digital literacy, use of innovative technologies, and opportunities to develop their professional and informational competencies. However, we noticed that the subject “Media pedagogy” is not included in the development of information competence of future teacher-psychologists in the process of media education. “Media pedagogy” is a subject that teaches the meaning, scientific-theoretical bases and practical importance, possibilities of the concepts of media, media education, competence, media culture, media competence, information security, information competence.

One way to make citizens media literate is to introduce comprehensive, systematic, and permanent media education programs for all young people [12].

The tool of our research work is the process of media education. Within the framework of the research, we consider mass media products, that is, television, radio, newspapers and magazines, information on the Internet as the main means of information competence development. And, we consider computers, tablets, mobile phones, multimedia as technical tools for the development of information competence.

Today’s informatization, the process of computerization of society, is aimed at overcoming the conflict between the increase in the amount of information and the ability of people to perceive it and requires a high level of information competence of students. It is important for the development of industry, science, and the availability of professionally qualified specialists, as well as for the formation of students’ skills in the competent use of information outside of the classroom.

In the process of clarifying the essence of the question of what opportunities are provided for the development of information competence of students in the process of media education in domestic universities, we considered the opportunities provided to students in newspapers and magazines in educational institutions and official social networks.

The main purpose of the university newspaper is to provide information on important events and news in education, science, sports, creative achievements, and cultural places, as well as information of social, political, educational importance. At the same time, creating an opportunity for students to increase their creative and professional skills, and develop their informational competencies.

The following list of university newspapers provides a floor for students to share their creative ideas, for faculty members — to share their expertise and knowledge: “Eurasia Universiteti” (ENU after L.N. Gumilyov), “Zhasurpaq” (EHI named after A.K. Kussayinov), “QazaqUniversiteti” (KazNU named after Al-Farabi), “Abay university” (KazNPU named after Abay), “Universitet” (Atyrau State University named after Kh. Dosmunkhamedov), “Shakarimshaniray” (Semey Shakarim University), “Zhastaralemi” (Academician E.A. Buketov University of Karaganda), “Parasat” (North Kazakhstan University named after M. Kozybayev), “Universitettynsy” (M.Kh. DulatiTaraz Regional University), “Yassawi Universiteti” (International Kazakh-Turkish University named after K.A. Yassawi), “SyrTulegi” (Kyzylorda State University named after Korkyt Ata). Special sections for students, notable achievements in science and education, sports, public works are published in such newspapers. The role of the university newspaper is exceptional in the formation of a person who is a professional, who has developed the ability to use the information obtained from the mass media in his life and professional career.

Information competence is a complex quality of a person that allows creative use in social and cultural activities. The problems of the area require design solutions, as well as overcoming destructive tendencies in the development of information free time of modern youth. There is a certain level of information competence (optimal, permissible, critical, and unacceptable) and criteria for the formation of changes in personal motivation, cognition, and spheres of activity. Forming the basis of information competence of students in their free time is a pedagogical process, which considers the levels, criteria and three stages of the process, such as the stage of design, constructive, and effective stages [13].

Life at the university is not only about education and experience, but is also about self-development as an individual, about scientific research, intellectual, creative, spiritual, and cultural development, development of artistic and sports abilities, about formation of a person with a patriotic and civic attitude.

In domestic universities, educational and recreational centers, student self-management centers, youth policy centers, student parliament and other centers are functioning to develop the creative potential of student youth,
to form their leadership skills, to provide opportunities for self-realization, to identify new bright talents and to develop their creative abilities and professional competence. Student clubs branch out into the following fields: language, song, dance, sports games, health, oratorical art, etc., and are open for young people who want to spend their extracurricular time effectively at their educational institution and to grow spiritually and culturally.

Having distinguished the goals and objectives of general student centers in educational institutions with “Pedagogy and Psychology” educational programs, we have systematized the following objectives:

➢ To develop social activity of students in the process of training highly qualified specialists with an active citizenship position, ensuring interaction with political institutions;
➢ To develop proposals for improving the quality of the educational process of a university;
➢ To work on promotion of a healthy lifestyle;
➢ To support the implementation of socially important initiatives of students;
➢ To organize contests, competitions, festivals for students;
➢ To provide civic-patriotic education to students, develop legal culture, influence the formation of moral values;
➢ To develop intellectual and creative potential, helping self-improvement of students in education, scientific and artistic activities;
➢ To organize and make students take part in republican, university cultural and holiday events;
➢ To collect information according to the interests and requests of students in their free time and promotion of effective use;
➢ To help students to improve their personal and professional qualities;
➢ To support young people with leadership, organizational skills, initiative and talented students;
➢ To contribute to the formation of competitive, professionally competent specialist in the labor market;
➢ To form students’ work motivation, active business involvement, flexibility to successfully learn effective skills and basic principles required in their professional fields, etc.

With the widespread use of the Internet through modern technical means, a social network is reflected as another opportunity to develop students’ information competence.

According to the 2022 data of the global online statistics service www.statista.com, the average consumer in Kazakhstan spends 5 hours and 38 minutes every day using various mass media products. According to the data, the largest share of time is spent on the Internet — 59% and television — 32%. According to the specialist of www.statista.com J’s statistical forecast, the number of Internet users in Kazakhstan will steadily increase between 2022 and 2028, and the total number will be 2.2 million users (+13.15%). He states that the number of Internet users is constantly increasing. Consequently, social network users increased by 4.8 million (+35.53%), mobile Internet by 2.8 million users (+17.8%). The statistical data covers 150 countries and regions of the world, and the indicators are obtained from international and national statistics management, trade associations and industry press data [14].

According to the MMI (Media Marketing Index) social research data of the leading research company Kantar (JSC “TNS Central Asia”) in the domestic market, Internet penetration has increased by 5.1% over the last 4 years. And the picture of the Internet audience is as follows: men — 46% and women — 54%; 15–34 years — 48.6%, 35–44 years — 23.1%, 45–54 years — 16.7%, 55–64 years — 11.7%. According to the coverage of “TOP-20 mobile applications”, WhatsApp messenger constitutes 75.6%, YouTube Video hosting — 73.4%, Instagram social network — 62.9%, Telegram — 65.1%, Facebook — 41.3%, TikTok — 37.9%, VKontakte — 35.9% [15].

After reviewing the data on the websites of universities, we realized that they use social networks as a source of additional information (Fig. 1).

Figure 1. Social networks in the development of information competence of the student
On the official YouTube channels of universities: information about the educational institution and EP (educational program) for entrants, full versions of videos of educational activities, of teaching staff, achievements and victories of employees and students, etc. can be seen. Currently, social networks and messengers such as Instagram, Facebook, Telegram, VKontakte, Twitter, TikTok, and WhatsApp can be mentioned as a source of easy and quick information among young people. Also, by registering, they could always be informed about the news of university life.

Considering the official social networks of universities as an opportunity to develop students’ information competence, we noticed that some educational institutions should improve them. It is clear that social media is a quick source of information for the student community.

**Results and Discussion**

We conducted a survey among students studying in the educational program 6B01101 — “Pedagogy and Psychology” to determine the opportunities and factors that caused difficulties in developing students’ information competence at universities. The survey “Students' level of information competence” was created and a total of 63 students participated from Eurasian National University named after L.N. Gumilyov and Astana International University.

In the content of the questionnaire, we took into consideration the availability level of computers, mobile devices and the Internet, the experience of working with information sources and the ability to assess the authenticity of information, to determine how often they use information sources, and so on (Table).

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<tr>
<th>№</th>
<th>List of questions</th>
<th>Levels</th>
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<tbody>
<tr>
<td>1</td>
<td>Level of availability of computers, mobile devices and the Internet (A)</td>
<td>76.9 %</td>
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<td>2</td>
<td>A student’s personal approach to training as a specialist fully meeting the re-</td>
<td>58.6 %</td>
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<td>quirements of the information society (B)</td>
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<td>3</td>
<td>Level of experience working with information sources (educational literature,</td>
<td>64.7 %</td>
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<td>scientific literature, reference literature, dictionaries, Internet, mass media) (C)</td>
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<td>4</td>
<td>The assessment of the degree of reliability and authenticity of the informa-</td>
<td>43.6 %</td>
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<td>tion source (D)</td>
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<tr>
<td>5</td>
<td>Sufficient level of knowledge, skills, and abilities necessary for critical per-</td>
<td>39.5 %</td>
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<td>ception of mass media products (E)</td>
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<td>6</td>
<td>The level of satisfaction and need for information on the official social net-</td>
<td>65.8 %</td>
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<td>work of the educational institution (F)</td>
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<td>7</td>
<td>The level of content of the educational course with subjects for the develop-</td>
<td>69.1 %</td>
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<td>ment of media competence and information competence (G)</td>
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![Figure 2. Diagram of the results of the survey](image)
As a result of the analysis of the answers received from the respondents related to the level of information competence of students: students are not fully equipped with personal computer tools due to social conditions; there is a need for subjects for the development of knowledge, competence, and skills in critically perceiving mass media products; despite students have experience working with information sources, there are difficulties in determining the degree of reliability and authenticity of information; that the information on the official social network of universities arouses the interest of students (Fig. 2).

We believe that these and other difficulties identified as the results of the survey are of a temporary nature. If in the process of media education complex activities aimed at developing students’ information competence are effectively organized and implemented, the results will show high indicators (Fig. 3).

And, in the use of mass media products, students are more interested in: motivational content (82.1 %), spiritual and moral promoting (72.9 %), refreshing and entertaining content (69.5 %), providing additional education (61.9 %) and educational content (45.8 %). The conclusion to be drawn from this is that students show high desire to self-study and learn.

Conclusions

It is necessary to develop students’ information competence in the process of media education as they are the future of the country.

In conclusion, we offer the following opportunities for developing the information competence of future teacher-psychologists:

➢ The need to include the subject “Mediapedagogy” among the elective subjects of 5B010300 “Pedagogy and Psychology” educational program that is aimed at developing information competence of students;
➢ To make sure the content of the University newspaper is updated in order to increase the interest of students in the future profession, university life as it is important in the process of developing students’ information competencies;
➢ Support of student centers and student clubs, which have their own place in the professional, personal and creative development of students;
➢ In order to contribute to the professional and creative development of students, to provide full coverage of the content on the university website and official social networks of the educational institution;
➢ The development of information competence of future teacher-psychologists in the process of media education is distinguished by the ability to effectively search for information from mass media products, competently sort, form ideas and apply the acquired knowledge and information in practice.

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Возможности развития информационных компетенций студентов в вузе

Современное педагогическое образование ориентировано на развитие профессиональных компетенций, конкурентоспособности, самореализации и, самое главное, знаний будущего специалиста. В этом случае одна из основных задач учебного заведения — научить будущего специалиста уметь ориентироваться в постоянно меняющемся потоке информации, мыслить критически и творчески. В быстро развивающемся информационном обществе информационная компетентность, несомненно, является одной из самых необходимых возможностей. Потому что большое значение имеет индивидуальность будущего специалиста, личный опыт в выполнении профессиональных требований и информационная компетентность в повышении квалификации. В статье рассмотрены возможности развития информационных компетенций будущих педагогов-психологов в вузе, то есть таких как содержание элективных дисциплин, студенческих центров, средств масс-медиа, возможности и роль учебного заведения в развитии информационных компетенций газетного издания и официальных социальных сетей. Были изучены отечественные и зарубежные научные труды по теме, систематизированы сопоставления данных. На основе анализа результатов проведенного метода анкетирования студентов были сделаны выводы по развитию информационной компетентности студентов в вузе, даны рекомендации по развитию информационной компетентности будущих педагогов-психологов.

Ключевые слова: компетентность, информационная компетентность, масс-медиа, процесс медиаобразования, Интернет, официальная социальная сеть, студенческие центры, университетская газета.

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