

Түйін сөздер: психологиялық мәселелер; объективтілік; субъективтілік; Zoom және Skype бағдарламалары; прокторингтің оң және теріс жақтары; автоматты балл санау; емтихан тестін ұйымдастыру әдістері; емтихан тестінің баламалары.

Критерии объективности и субъективности при экзаменационном тестировании по английскому языку во время пандемии

М.А.Блинов

Алматын филиал НОУ ВПО Санкт-Петербургского гуманитарного университета профсоюзов (Алматы, Казахстан)

Аннотация

Экзамены, являясь хорошим способом измерения академических достижений, могут вызвать у студентов серьезные психологические проблемы. Одним из способов устранения стрессовых ситуаций является максимально возможное повышение объективности оценивания студентов во время экзаменационного тестирования. Анализируются меры по снижению субъективности оценки во время экзаменационного тестирования в условиях пандемии. Предлагаются варианты проведения экзаменационного тестирования в вузе, в домашних условиях и с участием проктора. Обсуждаются плюсы и минусы прокторинга. Подробно описывается процедура экзаменационного тестирования и условия его проведения в условиях пандемии. В статье приводится практический пример проведения экзаменационного тестирования по специальности «Юриспруденция». Рассматривается альтернативы экзаменационному тестированию. Делается вывод о необходимости объединения методов традиционного и дистанционного обучения после завершения периода пандемии в Казахстане.

Ключевые слова: психологические проблемы; объективность; субъективность; программы Zoom и Skype; плюсы и минусы прокторинга; автоматический подсчет баллов; методы организации экзаменационного тестирования; альтернативы экзаменационному тестированию.

Received 03.01.2021.

IR STI 14.35.17

N.M. STUKALENKO¹, A.N. IMANOVA¹, R.A. MUKANOVA¹

¹JSC “NCPD “Orleu” Institute of Professional Development of Pedagogical Workers in Akmola region” (Kokshetau, Kazakhstan)

nms.nina@mail.ru, imanova.a@orleu-edu.kz, mukanroza_71@mail.ru

<https://doi.org/10.51889/2021-1.2077-6861.10>

PROFESSIONAL DEVELOPMENT OF TEACHERS IN CONDITIONS DIGITALIZATION OF EDUCATION

Abstract

The article discusses the development of digital technologies in education. Digitalization in education is a new paradigm that provides for new opportunities and new forms of communication and interaction of educational subjects; effective means of obtaining quality education. Individualization of vocational education and training based on digital technologies allows for an organic transition to multiprofessionalism - a post-industrial model of professionalism, when the profession ceases to be a standardized set of labor functions and actions, demanded knowledge, skills and abilities - and becomes a dynamic personalized set of competencies. Digitalization is one of the ways to make education of the same quality for everyone. With “digital” it is easier and faster to form a personalized approach to students, it is easier to implement differentiated teaching that takes into account the needs of each student.

Keywords: digitalization; education; communication; new paradigm; digital pedagogy; communication culture; Big Data; SAMR model.

Introduction. Digital world, Internet, networking opportunities, distance education – all of this change the system of modern education and give an impetus for further development.

Today the trend for digitalization is one of the key vectors of development in almost all areas of activity. The system of education isn't an exception also. Everywhere – in the country and in the world – new approaches with a focus on «digitization» have started to be introduced.

Primarily for the development of an effective digital ecosystem in Kazakhstan, the State Program «Digital Kazakhstan» was approved in December 2017. In the frame of this program, attention is also paid to the renewal of the national education system. In particular, the program focuses on improving digital literacy at all levels of education. This, in turn, involves the introduction of training of the basic programming, the growth of the number of graduates with basic ICT-competencies and an annual increase the number of graduates of ICT-specialists [1].

Digitalization efforts lead to the creation of a new society where human capital is actively developed – knowledge and skills of the future are brought up from a very young age, business efficiency and speed are increased through automation and other new technologies, and dialogue between citizens and their countries becomes simple and open. The digital revolution is taking place before our eyes [3].

The digital platform and new technologies have radically changed the learning process. A workshop or militarized scheme (by brigade, by division, by platoon, by classroom, by group, by faculty, by schedule), when everyone in one place at the same time could receive the same knowledge hopelessly outdated, although it continues to dominate. Today any person can get almost any knowledge anywhere and at any time [4].

The main body. These changes are due to the introduction in recent years of many technological innovations used in different industries. Production methods are fundamentally changing and new demands are being made on people's education and work skills. Industrial Internet of Things shapes

the future of manufacturing industries, using the possibilities of flexible and intelligent production, provides a revolutionary growth in productivity. Artificial intelligence is introduced, including conservative industries such as in financial services and medicine. 3D printing technology is already transforming industries such as aviation, logistics, biomedicine and automotive [5]. These changes are radical and take place in a few years and even months, rather than decades as before.

The process of digitalization today involves almost all countries in the world. At the same time, each country determines its own priorities for digital development. More than 15 countries are currently implementing national digitalization programs. The leading countries in the digitalization of national economies are China, Singapore, New Zealand, South Korea and Denmark. China, in its program «Internet Plus» integrates digital industries with traditional ones. Singapore is building a «Smart Economy», Canada is building an ICT hub in Toronto, South Korea is focusing on human capital development, entrepreneurship and dissemination of ICT achievements in its' program «Creative Economy» and Denmark is focusing on digitalization of the state sector [2; 3].

Methodology. The development of digital technologies in the field of education is dictated by the relevance and is supported at the state level and the general public. «The digit», on the one side, helps to solve, and on the other side creates new challenges. The state, IT-companies and the pedagogical community have to work together to form new methods of education, to find the optimal balance between digital and classical education [6]. Digitalization is a new approach to the organization and development of a person's life and professional space, an absolutely new social situation of development.

Digitalization in education is a new paradigm that provides new opportunities and new forms of communication and interactions between educational subjects; effective tools of obtaining quality education.

The using of new information and communication technologies is the initial

condition for the further development of digital pedagogy.

Digital technologies allow you to build individual educational routes, to make the educational environment unlimited, accessible, allowing you to carry out education in several directions at once, to combine study and work and other activities, also to receive information in an accessible, fun, playful way.

Discussions. In the process of digitalization and transformation of education, at the first place there are tasks as such as the intellectual development of the individual, the development of communication culture, the development of critical thinking and the creative abilities of the individual [7; 8].

At the same time, modern digital technologies are based on the use of ICTs, the Internet and software and they are recognized as the effective tools of education. Cloud technologies, e-learning technologies, gamification technologies, online learning, etc are related to them. However, many of these technologies are having their drawbacks. The most frequently mentioned is the absence or a significant reduction of «face-to-face» communication between teacher and students, between students and their parents. Of course, these are just some examples of the negative consequences of reducing direct communication between the student and the mentor, but they are the most common ones.

The quality of education, the success of its development and effectiveness are determined, first of all, by the activities of the teaching staff of the educational organization: can teach those, who are not only know their subject well, but also regularly update their knowledge in the professional field, contribute to the development of science, and also is able to convey the system of this knowledge and form the models of learners' cognition [9].

A modern teacher is a teacher with a new planetary thinking. The pace of development of society, the «era of seven revolutions» (population, resource, economic, managerial, technological, informational, digital), the new world, determined by the fourth technological revolution, are changing the educational

paradigm, now it is not a stable external environment, but a constantly and rapidly changing world. Staff and education are one of the «key institutions, in the frame of which conditions are created for the development of the digital economy» [7; 10].

The transition to the information society shows that the greatest value are knowledge, new technologies, the level of education and the ability to create this knowledge. A modern teacher is faced with the need to expand the flows of knowledge and transfer them to everyone who wants to learn, while their form of training does not matter, only a guarantee is important – the formation of high-quality human capital, the future staff resources of the country.

The requirements of the digital challenge are the understanding by modern teachers of the need to hold such new realities as cloud technologies, network technologies, technologies for processing large amounts of data (Big Data), the Internet of Things, distributed ledger technologies (including blockchains), digital technologies of specialized educational destinations – edtech (educational technologies) and others. The using of digital technologies creates new opportunities for building of the educational process and solving a wide range of educational tasks – both “eternal”, not solvable by means of traditional education, and fundamentally new [11].

The SAMR model can be used to describe how digital technology can affect on teaching and learning.

The model involves four stages:

1) Substitution: digital technologies simply replace traditional ones (for example, typing in Word).

2) Augmentation: digital technologies are becoming an optimization tool in solving educational problems (for example, current or diagnostic, or final assessment using Google forms, mobile applications Kahoot; Plikers, etc.)

3) Modification: significant functional changes in the educational process and the interaction of its participants (for example, the using of blended learning technologies or an inverted classroom).

4) Redefinition: setting and solving new pedagogical problems that could not be solved earlier [12].

The meaning of changes in the organization of the educational process in the context of digitalization is to increase its pedagogical performance. This can be achieved, first of all, through the individualization of teaching – the transformation of a single and common educational process for all into a set of individual educational routes, which were built with taking into account, by the one side, of personal educational needs and requests of students, on the other, their individual psychological and pedagogical and medical (for students with disabilities) features.

Digital pedagogical technologies are able to provide an almost infinite number of areas of individualization of teaching, including: by content, by the pace of mastering the educational material, by the level of complexity, by the method of presentation of educational material, by the form of organization of educational activities, by the composition of the study group, by the number of repetitions, by the degree of openness and transparency for other participants in the educational process, etc. It is important that all these areas of individualization can be implemented simultaneously, which allows you to customize the educational process for each specific student (the principle of adaptability), to ensure a high level of educational motivation and full assimilation of the given educational results [13].

Individualization of professional education and teaching based on the digital technologies allow to provide an organic transition to the multiprofessionalism – the post-industrial model of professionalism is, when the profession ceases to be a standardized set of labor functions and actions, required knowledge, skills and abilities – and becomes a dynamic personalized set of competencies.

In the modern rapidly changing world of digital technologies, being the environment of existence, there new opportunities open up, but at the same time, the digital environment requires from teachers to have a different perception of the world, a different pedagogical style in

professional activity, different pedagogical technologies and new forms of work with students.

Today we are talking about the readiness to the professional activity in educational organizations, in which “target models of the digital educational environment” are being introduced, “horizontal learning communities” are being formed, a “system for fixing a digital footprint” is being built and “individual learning path” for each student is being developed [14].

The complexity of attention to the digitalization at all levels allows us to judge the scale of the impact of this process on all spheres of social relations. In education sector these changes take place at the level of space and time, the ontology of the education system is changing.

Digitalization is becoming mainstream – direction of its development. To a certain extent this is facilitated by the abundance and availability of information, the ability to quickly find it by user request. Besides, redundancy of information often leads to its surface perception, and exposure of students accessing the Internet, destructive settings and risks of mind manipulation increases significantly.

Among the digital generation, the differentiation between «lagging» and «advanced» is particularly noticeable. Among the latest there is a new type of learners with a high level of learning ability, aimed at self-education, self-actualization and self-development, where possible – independently forming their own educational route, in some cases combining study, work and personal development. In general, the strategy for working with representatives of the digital generation should be based on the fact that it is practically impossible to integrate them into the traditional educational process. Its essential transformation is necessary, which will result the construction of a new, digital educational process. One of the social and psychological barriers to this task is that many teachers who have successfully passed the stage of adaptation to digital technologies and successfully used digital resources outside their professional activity retain the usual beliefs that their

professional and pedagogical activities should retain their traditional (pre-digital) character.

Results. The experience of introducing digital technologies into the educational process to date can not be considered as fully studied. Digitalization of education is a process as necessary as it is inevitable. But during the transition «into digital» it is critical to preserve the true «analogue» wealth, which is the foundation of the classical system of education. The role of the teacher is transformed: new competences are added to those that have been inherent to this profession for centuries. Availability and quantity of information is growing more than ever and it is important to be able to work with it. In addition, the development of «flexible» skills becomes relevant.

This is why a modern teacher is not only a knowledge carrier, but also a mentor and tutor. He should teach children to work as a team, apply reflexion, plan their time, etc. It is also necessary to be well acquainted with information flows and become a navigator for pupils. It is important to teach the child the algorithm of search and processing of information, to help him/her see the regularities and analyze trends, not just to memorize dates and facts [15].

Digitalization is one of the ways to make education equal by the quality for all. With «digitization» it is easier and faster to form a personalized approach to students, it is easier to implement differentiated learning that considers the needs of everyone.

A digital environment can create equal opportunities for children with special developmental needs. It is easier to make changes in digital resources. In addition, experts find it easier to refine materials due to the large amount of data. For example, if, according to statistics, a task causes difficulties for most users, it is possible to revise its wording or add more preparatory tasks to the section. Regular and operational analytics is a big advantage of «digitalization», which allows to make the content on the highest quality.

Conclusion. Thus, in the era of digitalization, the increasing role of professional development of teachers acquires a global character in an open society, where the innovative experience, support for the interaction of successful practices, dissemination of initiatives and innovations of teachers and leaders of educational organizations, and strengthening of the personality-oriented orientation of the system of advanced training of teachers are being demanded.

The results of the study show that despite the existence of a large number of digital resources, programs and opportunities for partial automation of the educational process, the figure of the teacher remains necessary for the effective completion of the learning process, there is a need for a closer transfer of knowledge and technology in the educational process, with a parallel formation of the concept of «digital competence» and identification of criteria for its evaluation by future and practicing teachers.

References

- [1] Gosudarstvennaya programma «Cifrovoy Kazahstan» (utverzhdena postanovleniem Pravitel'stva Respubliki Kazahstan ot 12 dekabrya 2017 goda №827.
- [2] Gosudarstvennaya programma razvitiya obrazovaniya i nauki Respubliki Kazahstan na 2020-2025 gody. <http://adilet.zan.kz/rus/docs/V1500010768> (data obrashcheniya 20.11.2020).
- [3] Akimova O.B., Shcherbin M.D. Cifrovaya transformaciya obrazovaniya: svoevremennost' uchebno-poznavatel'noj samostoyatel'nosti obuchayushchihsy // Innovacionnye proekty i programmy v obrazovanii. – 2018. – №1. – S.27-34.
- [4] Ahmetova G.K., Karaev ZH.A., Muhambetzhanova S.T. Metodika organizacii povysheniya kvalifikacii pedagogicheskikh kadrov v usloviyah vnedreniya elektronnoho obucheniya. – Almaty: AO NCPK Örlu, 2012. – 418 s.
- [5] Balykbaev T.O., Bidajbekov E.Y., Grinshkun V.V. KazNPU – Cifrovoy universitet: osobennosti formirovaniya i razvitiya // Vestnik KazNPU im. Abaya. Seriya Fiziko-matematicheskie nauki. – 2018. – №2 (62). – S.13-19.
- [6] Bidajbekov E.Y. Malimetter kory zhane akparattyk zhujeler: Oku kuraly / E.Y. Bidajbekov, K. Elubayev, Sh. T. Shekerbekova. – Almaty: Print-S, 2017 – 220 b.

- [7] Belobol E.V., Kognitivnye stili: funkcional'nyj podhod /E.V.Belobol //Vestnik RUDN, seriya Psihologiya i pedagogika. – 2007. – №3-4. – S.20-30.
- [8] Grinshkun V.V., Bidajbekov E.Y., Kosherbaeva A.N., Orynbaeva L.K. Principy i usloviya ispol'zovaniya informacionnyh tekhnologij v ramkah vneuchebnoj deyatelnosti shkol'nikov //Pedagogika i psihologiya. – 2019. – №2 (39). – S.77-85.
- [9] Dalaeva T.T., Balgazina B.S., Belous S.G., Uldahan Sh.M. Studencheskij cifrovoy NIR-CLUB //Pedagogika i psihologiya. – 2020. – №3 (44). – S.32-44.
- [10] Irsaliev S.A., Dihanbaeva D. Chto neobhodimo dlya sozdaniya universiteta novogo pokoleniya? (mneniya mezhdunarodnyh ekspertov) //Pedagogika zhene psihologiya. – 2017. – №4 (33) – S.79-89.
- [11] Kalimullina O.V., Trocenko I.V. Sovremennye cifrovye obrazovatel'nye instrumenty i cifrovaya kompetentnost': analiz sushchestvuyushchih problem i tendencij //Otkrytoe obrazovanie. – 2018. – T.22. – №3. – S.33-43 //DOI:http://dx. doi.org/10.2686/1818-4243-2018-3-61-73
- [12] Mavlyutova G.A. Cifrovizaciya v sovremenном vysshem uchebnom zavedenii //Ekonomicheskaya bezopasnost' i kachestvo. – 2018. – №3 (32). – S.5-7.
- [13] Menciev A.U. Rol' cifrovyyh tekhnologij v sovremennoj pedagogike //Nauchnyj forum: Pedagogika i psihologiya: Sb.st. po materialam III mezhdunarodnoj nauch.-prakt.konf. – M.: MCNO, 2017. – №11 (13). – S.23-26.
- [14] Cergeeva I.V. Cifrovoy pedagog v onlajn obrazovanii //Nauchnye trudy Instituta nepreryvnogo professional'nogo obrazovaniya. – 2016. – №6 (6). – S.117-122.
- [15] Usenova A.K., Rahatov Sh.Sh. Akparattyk-kommunikativtik madeniet zhastardy kasibi tulgaluk damytu negizi retinde //Pedagogika i psihologiya. – 2016. – №3 (28). – S.27-33 b.

Білім беруді цифрландыру бағытында мұғалімдердің кәсіби дамуы

Н.М. Стукаленко¹, А.Н. Иманова¹, Р.А. Муканова¹

¹«Өрлеу» БА ҰО АҚ Ақмола облысы бойынша педагогикалық қызметкерлердің біліктілігін арттыру институты (Көкшетау, Қазақстан)

Аңдатпа

Мақалада білім берудегі цифрлық технологиялардың дамуы туралы айтылады. Білім берудегі цифрландыру – бұл білім беру субъектілерінің қарым-қатынасы мен өзара әрекеттесуінің жаңа мүмкіндіктері мен жаңа түрлерін қамтамасыз ететін жаңа парадигма; сапалы білім алудың тиімді құралдары. Цифрлық технологияларға негізделген кәсіптік білім беру мен оқытуды дараландыру, кәсіп кәсіптік функциялар мен іс-әрекеттердің стандартталған жиынтығы болуды тоқтатқанда, қажетті білім, білік және дағдылардың құзыреттіліктерінің динамикаланған жиынтығына айналған кезде – кәсіби шеберліктің постиндустриалды моделіне органикалық түрде өтуге мүмкіндік береді. Цифрландыру – бұл бәріне бірдей сапалы білім берудің бір жолы. «Сандық» жағдайында студенттерге дербестендірілген тәсілді қалыптастыру оңайырақ және тезірек болады, әр оқушының қажеттіліктерін ескеретін саралап оқытуды жүзеге асыру оңайырақ болады.

Түйін сөздер: цифрландыру; білім беру; коммуникация; жаңа парадигма; сандық педагогика; коммуникация мәдениеті; Big Data; SAMR моделі.

Профессиональное развитие педагогов в условиях цифровизации образования

Н.М. Стукаленко¹, А.Н. Иманова¹, Р.А. Муканова¹

¹Филиал акционерного общества национальный центр повышения квалификации «Өрлеу» институт повышения квалификации педагогических работников Акмолинской области (Кокшетау, Казахстан)

Аннотация

В статье рассматриваются вопросы развития цифровых технологий в сфере образования. Цифровизация в образовании новая парадигма, предусматривающая новые возможности и новые формы коммуникации и взаимодействия субъектов образования; эффективное средство получения качественного образования. Инди-

видуализация профессионального образования и обучения на основе цифровых технологий позволяет обеспечить органичный переход к мультипрофессионализму – постиндустриальной модели профессионализма, когда профессия перестает быть стандартизированным набором трудовых функций и действий, востребованных знаний, умений и навыков, – и становится динамичным персонализированным набором компетенций. Цифровизация – один из способов сделать образование одинаково качественным для всех. С «цифрой» проще и быстро сформировать персонализированный подход к ученикам, легче внедрить дифференцированное обучение, которое учитывает потребности каждого ученика.

Ключевые слова: цифровизация; образование; коммуникация; новая парадигма; цифровая педагогика; коммуникационная культура; Big Data; модель SAMR.

Received 26.11.2021

IR STI 14.15.15

N.B. MYRZALY¹, Sh.M. ULDAKHAN¹, K.D. KAIMULDINOVA¹, A.N. BEIKITOVA¹

¹Abai Kazakh National pedagogical university¹ (Almaty, Kazakhstan)

naziramyrzaly@gmail.com, uldahan_titan@mail.ru, kulash_kaimuldin@mail.ru,

ban_1985@mail.ru

<https://doi.org/10.51889/2021-1.2077-6861.11>

INNOVATION AND CHANGES IN EDUCATION MANAGEMENT

Abstract

This article examines the relevance of modernization of today's education, in particular, the reform of activities in the management of educational organizations. Modernization of management of educational organizations involves the introduction of innovative approaches in the management of educational organizations. It was revealed that one of the priority areas that characterize the activities of modern educational institutions is the transformation of its management cycle. As one of the effective management methods, in contrast to the existing traditional vertical command-administrative system, is considered a horizontal-cyclical organizational structure (HCOS). This transformation has aimed to the implementation of decentralized coordination of the actions of the relevant organizational units (the formed departments) in the process of performing common tasks. The presented work will investigate the implementation of HCOS on the example of the Institute of Natural sciences and geography of the Abai Kazakh National Pedagogical University.

Keywords: education management; innovation; management cycle; horizontal-cyclical organizational structure; Abai University.

Introduction. In modern society, the development of any nation, its viability and security is based primarily on the level of education of its citizens. Consequently, one of the priority areas of modern social policy in Kazakhstan is the modernization of all levels of education. The modernization of education involves the initiation of innovative approaches in the management of an educational organization. The creation and implementation of innovative ideas is a key organizational effort aimed at achieving excellent results and ensuring a competitive advantage [1]. This

process is possible due to the readiness of heads of higher education organizations to innovative management methods, because the effectiveness of the innovations, being introduced, depends on the competence and determination of education managers.

Main body. Innovation is considered to be the main driver of progress and prosperity [2]. Management innovation can be characterized as the invention and implementation of a management practice, structure, method or process that is new to the highest level of development in a specific field and that is