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THE DEVELOPMENT OF DIGITAL COMPETENCE IN HIGHER EDUCATION

Annotation. The digital transformation of education has fundamentally changed the way students learn and learn in higher education. Building students' digital competencies is essential to preparing them for the rapidly changing technological landscape. This article presents a comprehensive framework for developing student competence in the context of digitalization of education. Purpose of the study: to develop effective pedagogical strategies and methods for developing digital competence of part-time students. The developed methodology integrates traditional and digital teaching methods. The methodology developed as a result of the author's research is intended to create a digital ecosystem of higher education.

Keywords: digital competence; digital skill; distance learning; digitalization of education.

Introduction

In recent years, the development of digital competence has become a critical issue in higher education. The increasing use of technology in teaching and learning has created new opportunities and challenges for educators and students alike. Digital competence refers to the ability to use technology to achieve educational goals, including the ability to access, evaluate, create, and communicate information in a digital environment. This report will explore the development of digital competence in higher education and examine the challenges and opportunities associated with it.

Research materials and methods

The main feature of distance learning is the use of synchronous and asynchronous methods. Synchronous learning (online learning) is a type of educational activity in which classes are conducted in real time via the Internet. This is the interaction of the student and the teacher online according to the schedule of classes. Synchronous training includes a webinar, a web conference, educational television, the Internet, radio, and telephone conversations. In asynchronous learning, the student can work on an individual schedule without time limits. The duration of the training may also be longer than the time of one lesson. If necessary, he can repeat the training material several times. In asynchronous learning, communication between the student and the teacher is carried out through e-mail correspondence, analysis on the forum,

transmission of audio and fax messages. Offline learning (asynchronous) is a type of educational activity carried out offline when the Internet is turned off. Integrated or blended learning is a technology for organizing the educational process, including the joint use of traditional learning technologies and e-learning, distance learning.

Distance learning is conducted in full-time and part-time formats. In the first format, the student studies the curriculum full-time in the traditional format. And in the second format, he studies in his free time (evenings, weekends) without interrupting work.

The free use of such distance learning modes and formats has led pedagogical science to digitalization through "open education".

Foreign scientists were among the first to theoretically substantiate and put into practice modern information technologies in the field of education.

The free use of distance learning modes and formats forms the following digital competencies for students.

Digital Competence in Higher Education:

Digital competence has become an essential skill for students in higher education. In today's digital age, students are required to use technology to access information, collaborate with peers, and complete assignments. Therefore, it is crucial that students develop digital competence to succeed in their academic and professional lives.

According to the European Commission, digital competence is defined as "the confident, critical, and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society." In higher education, digital competence involves the ability to use a variety of digital tools, including software applications, social media, and online learning platforms.[1]

The development of digital competence in higher education is not only essential for students but also for educators. Educators must be equipped with the necessary digital skills to effectively use technology in teaching and learning. This includes the ability to design and deliver online courses, provide digital feedback, and use digital tools to support student learning.

Importance of Digital Competence in Higher Education:

Digital competence is becoming increasingly important in higher education due to the changing nature of the workforce. Many jobs now require digital skills and competencies, and this trend is expected to continue in the future. Therefore, students who do not have digital skills and competencies may struggle to find employment after graduation.

Moreover, digital competence is also essential for academic success. Many universities are now offering online courses and using digital tools in the classroom. Therefore, students who do not have digital skills may struggle to succeed in these courses and may not achieve their academic goals.

The development of digital competence in higher education can also promote critical thinking and creativity. Digital tools and resources can be used to promote collaboration, communication, and problem-solving skills among students. This can lead to increased engagement and participation in the learning process. [2]

Development of Digital Competence in Higher Education:

The development of digital competence in higher education involves the acquisition of specific digital skills and competencies. These skills and competencies can be broadly categorized into four categories:

- Information and Data Literacy:

Information and data literacy involve the ability to access, evaluate, and use information effectively. Students must be able to use digital tools and resources to find and evaluate information and use it to achieve academic and professional goals.

- Digital Communication and Collaboration:

Digital communication and collaboration involve the ability to communicate and collaborate with peers and educators in a digital environment. This can involve the use of social media, online learning platforms, and other digital tools.

- Digital Content Creation:

Digital content creation involves the ability to create and share digital content, including multimedia presentations, videos, and webpages. This requires proficiency in a range of digital tools and software applications.

- Digital Safety and Citizenship:

Digital safety and citizenship involve the responsible and ethical use of digital technologies. This includes the ability to protect personal information online, understand digital copyright laws, and avoid online scams and threats.

The development of digital competence in higher education requires a coordinated effort from educators, educational institutions, and policymakers. Educational institutions should provide students with access to technology and digital resources and integrate digital competence into the curriculum. Educators should be trained in the use of digital tools and should be encouraged to use them in the classroom. Policymakers should provide funding and resources to support the development of digital competence in higher education.[3]

Challenges of Developing Digital Competence in Higher Education:

Despite the importance of digital competence in higher education, there are several challenges associated with its development. One of the primary challenges is the lack of digital skills among educators. Many educators do not have the necessary skills to effectively use technology in teaching and learning. This can lead to ineffective use of technology in the classroom and can hinder the development of digital competence among students.

Another challenge is the digital divide. Not all students have equal access to technology and digital resources. Students from disadvantaged backgrounds may not have access to computers or high-speed internet, which can hinder their ability to develop digital competence. This can create a digital divide between students and can lead to inequalities in learning outcomes.

The rapid pace of technological change is another challenge associated with the development of digital competence. New technologies are constantly emerging, and educators and students must continuously adapt to these changes. This can be challenging, especially for educators who may not have the time or resources to keep up with technological   advancements. [4]

Opportunities of Developing Digital Competence in Higher Education:

Despite the challenges, the development of digital competence in higher education also presents several opportunities. One of the main opportunities is the ability to provide flexible and accessible learning opportunities. Digital technologies can provide students with the ability to access educational resources and complete assignments at their own pace and convenience. This can be especially beneficial for students who may have work or family commitments that prevent them from attending traditional classes.

Another opportunity is the ability to enhance collaboration and communication among students. Digital technologies can provide students with the ability to communicate and collaborate with peers in real-time, regardless of their physical location. This can lead to increased engagement and participation in group work and can enhance the overall learning experience.

The use of digital technologies in teaching and learning can also provide educators with the ability to personalize learning experiences. Digital tools can be used to tailor instruction to individual student needs and learning styles. This can lead to improved learning outcomes and increased student motivation.[5]

Strategies for Developing Digital Competence in Higher Education:

To overcome the challenges associated with developing digital competence in higher education and take advantage of the opportunities, several strategies can be employed. These include:[6]

Professional Development for Educators:

Professional development programs can be designed to provide educators with the necessary skills and knowledge to effectively use technology in teaching and learning. This can include workshops, training sessions, and online courses.

Curriculum Integration:

Digital competence should be integrated into the curriculum across all disciplines. This can involve the development of specific courses or modules that focus on digital skills and competencies. The integration of digital tools and resources into existing courses can also be beneficial in promoting the development of digital competence.

Technology Infrastructure:

To ensure that all students have equal access to technology and digital resources, educational institutions should invest in technology infrastructure. This can involve providing access to computers, high-speed internet, and other digital resources. Educational institutions can also consider providing laptops or tablets to students who may not have access to technology at home.[7]

Collaboration and Partnerships:

Collaboration and partnerships between educational institutions, industry, and government can also be beneficial in promoting the development of digital competence. Industry and government can provide funding and resources to support the development of digital competence in higher education. Educational institutions can also collaborate with industry partners to provide students with opportunities for internships or work experience in digital fields.

Digital Assessment:

Assessment of digital competence should be integrated into the evaluation of student performance. This can involve the development of specific assessment criteria for digital competence or the use of digital tools for assessment. This can provide

students with feedback on their digital skills and competencies and can help to promote the development of digital competence.

Conclusion

The development of digital competence in higher education is essential for students and educators alike. Despite the challenges associated with its development, there are several opportunities that can be taken advantage of. Strategies such as professional development for educators, curriculum integration, technology infrastructure, collaboration and partnerships, and digital assessment can be employed to promote the development of digital competence. Educational institutions, industry, and government should work together to ensure that all students have the necessary digital skills and competencies to succeed in today's digital age.

Based on the analysis of theoretical and experimental work, the programmatic, technical, informational, methodological training of the teacher and the change in the motivation of students for distance learning and the quality of knowledge are revealed. The educational activities were organized in connection with the increased activity of students.

Scientific and methodological research was analyzed in accordance with the topic. To define the concept of activating distance learning, pedagogical works were considered. However, complementarity rather than contradiction prevailed among the views. Through the platform, 241 students have completed various courses and received certificates.

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ЖОҒАРЫ БІЛІМ БЕРУДЕ ЦИФРЛЫҚ ҚҰЗЫРЕТТІЛІКТІ ДАМЫТУ

Андатпа. Білім берудің цифрлық трансформациясы студенттердің жоғары оқу орындарында білім алу тәсілін түбегейлі өзгертті. Студенттердің цифрлық құзыреттіліктерін қалыптастыру оларды тез өзгеретін технологиялық ландшафтқа дайындау үшін өте маңызды. Бұл мақалада білім беруді цифрландыру контекстінде студенттердің құзыреттілігін дамытудың кешенді негізі келтірілген.

Зерттеудің мақсаты: сырттай оқитын студенттердің цифрлық құзыреттілігін дамытудың тиімді педагогикалық стратегиялары мен әдістерін әзірлеу. Әзірленген әдіс дәстүрлі және цифрлық оқыту әдістерін біріктіреді. Автордың зерттеуі нәтижесінде жасалған әдістеме жоғары білімнің цифрлық экожүйесін құруға арналған.

Кілт сөздер: Цифрлық құзыреттілік; цифрлық дағды; қашықтықтан оқыту; білім беруді цифрландыру.

Медешова А.Б., Амантурлина Г.К., Бакытжанова Г.Б.
РАЗВИТИЕ ЦИФРОВОЙ КОМПЕТЕНТНОСТИ В ВЫСШЕМ ОБРАЗОВАНИИ

Аннотация. Цифровая трансформация образования коренным образом изменила то, как студенты учатся в высших учебных заведениях. Формирование цифровых компетенций студентов имеет важное значение для подготовки их к быстро меняющемуся технологическому ландшафту. В этой статье представлена комплексная основа для развития компетенций студентов в контексте цифровизации образования.

Цель исследования: разработать эффективные педагогические стратегии и методы развития цифровой компетентности студентов-заочников. Разработанная методика объединяет традиционные и цифровые методы обучения. Методология, разработанная в результате исследования автора, предназначена для создания цифровой экосистемы высшего образования.

Ключевые слова: Цифровая компетентность; цифровой навык; дистанционное обучение; цифровизация образования.