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ASSESSMENT IN ONLINE EDUCATION

Abstract. The present article gives brief information about the assessment in online education. The development of online education has grown substantially over the last decade. It has been growing from an experimental novelty to almost inescapable teaching tool, changes learners and learning process, as well as teaching practices. During the pandemic period online teaching has been an alternative for both teachers and learners. Schools and universities were forced to enhance their technological equipments in online education. Suspending face-to face classes, e-learning became the only option for teachers and students to communicate. E-learning turned out to be helpful during these critical situations, of course the implementation of technology in education evoked some challenges to teachers. The absence of physical interaction between teachers and students in online assessment created some hardships. Electronic teaching is an online teaching method without physical interference of teachers and students. In literature, the notion of e-teaching is not widely discussed as e-learning. E-Learning, e-teaching involve the technical mix of content experience, pedagogy, knowledge through multiple media outlets, and using these learning theories is to perform both formal and informal instructional goals. B. Wilson, S. Ludwig-Hardman and others pacify the following tasks that teachers should perform in online teaching: "Provide syllabi, instructional resources, communication tools, and learning strategies; monitor and assess learning and provide feedback, remediation, and grades; identify and resolve instructional, interpersonal, and technical problems; and create a learning community in which learners feel safe and connected and believe their contributions are valid. Definitely a long list of responsibilities which most of the professors have not been prepared for in their socialization processes into the academic world" [13]. "e-Teaching" connects all the preferred mode as Visual, Aural, Reading/Writing, and Kinesthetic (VARK). ICT encourages teaching and learning autonomy, produces constructive learning factors, enhances learning consistency, improves record-keeping of

educational achievements, strengthens assessment practices. J. Hoskins, describes three qualities that are needed to be an e-teacher and discusses the seven principles of good practice which help teachers explore the transition from being an excellent traditional teacher to an excellent e-teacher. These seven principles are: (1) encourage contact between a student and a faculty; (2) develop reciprocity and cooperation among students; (3) inspire active learning; (4) give prompt feedback; (5) emphasize time on task; (6) communicate high expectations; and (7) respect diverse talents and ways of learning [6, p.53–56]. These seven principles apply equally well in the traditional and electronic classroom. It should be noted that E-teaching is not synonymous with online teaching. E-teaching is the combination of both a face-to-face and a distance learning. For E-teaching, it is necessary to connect electronically because, Internet resources are inevitable for the E-teacher. As it is shown, E-teaching is a fundamental component for every educational institution. In e-teaching tool and platforms play a crucial role. Podcasts, video clips, projectors, e-books, open educational resources can be included to the tools. *E-Teaching Platforms occur: World Wide Web (WWW), Learning Management System, Skype, WhatsApp & Zoom, Microsoft Teams, etc.* "E-learning" as a term appeared in the middle of the 1990s, when the Internet started to gain popularity and computer-based or web-based learning was included in the application of E-learning. It is the use of ICT in the teaching process where teachers and students are distanced by location, time, or both to improve the educational experience and performance.

Key words: online education; e-assessment; technological equipments; e-learning; implementation; original evaluation; authentic assessment.

INTRODUCTION / ВСТУП

Formulation of the problem. Assessment plays a crucial role in the teaching process. It develops learners' understanding and all skills. In this process teachers' beliefs greatly influence the educational process.

The word 'assessment' is originated from the Latin verb "assidere" – "sedere" meaning to *sit* and "ad" meaning *beside* i.e. 'to sit beside'. From Old French, the word found its way into Middle English in the form of the word "assess". By the 1800s, the word started being used in regard to taxes, and in the 1930s, people started using the word to mean "to judge the value of something". "The suffix" – ment" is a common suffix when it comes to English words with a Latin root. It comes from the Latin "*mentum*". It means "the result of". So, the word assessment literally means "the result of assessing" [15].

The term "assessment" sometimes is misunderstood in current educational system. Some consider testing and assessing are synonymous terms, but they differ substantially. According to H. Brown "Tests are prepared administrative procedures that occur at identifiable times in a curriculum. Assessment is an ongoing process that encompasses a much wider domain" [1, p. 4].

"e-Assessment offers substantial potential benefits but needs to be carefully managed to minimize risks. Fundamental assessment principles such as, ensuring that assessment instruments are reliable and valid are just as important in e-Assessment. It's used formatively offers rapid and effective feedback to learners and can be used to substantially enhance the learning process [3], [5].

We consider online assessment to be rather pedagogical than technological. Researches show that there are mainly four online teaching pedagogies: Flipped classroom, Collaborative learning, Open-source educational resources, Blended learning [17].

Flipped classroom model learning process demands less instructions and handholding, as it happens in students' free time. Students give their time and effort to reading and understanding the content of the course before going to class.

In collaborative learning students create small groups which may consist of two or more in order to solve the given problems. Students bring different experiences to the table, and they learn from one another in the period of discussing. Online teaching is one of the best places to implement collaborative learning.

When teaching online, teachers undergo needless stress for themselves. They try to create flawless educational resources for their students in this period. However, using "Open-source educational resources" saves the teachers not to write articles or lectures, prepare videos. Instead, the teachers have a chance to search the Internet for educational resources.

In blended learning interactions among students and their teachers are more limited. This learning is the mixture of a traditional and the flipped classroom teaching pedagogy.

These various learning environments involve the combination of traditional pedagogical methods and new learning technologies.

Of course, in e-learning assessment a teacher comes across various difficulties. In the present article we'll try to investigate online assessment in the Azerbaijan University of Languages which is situated in Baku and highlight the teacher's role in this process.

First of all, we would like to give the analysis of the term 'e-learning'. In this field there are some view points. This type of learning can be called 'distance education', 'distance learning' 'web-based learning', 'online learning' and are

sometimes used interchangeably, though some intend to select specific term reflecting their own views. E-learning can be defined as the use of Information and Communication Technology (ICT) to deliver information in the field of education where teachers and learners are separated by distance, time, or both for the sake of improving the learner's learning experience and performance [7, p. 396], [12, p. 72].

W. Horton suggests that "It is a set of instructions that are delivered via electronic media, i.e. the internet, intranets, and extranets" [5].

The most obvious advantage of e-learning is the ability to learn from anywhere at any time. Further, e-learning provides delivering education in a flexible and easy way through internet use and to support individual learning or organizational performance goals [2].

Many factors have influenced to assessment in education. The most important factor could be related to teachers' beliefs about the nature and goals of assessment. According to recent research works, teachers believed that assessment should be used to improve learning, teaching and provide information on student progress [1], [4].

Realizing e-assessment the teachers 1. should provide feedbacks, 2. be aware or sure the students' cognitive skills, 3, should appreciate the students' activity (individually or in group).

According to some scientists there are three fundamentals of assessment. These are: validity, reliability and dishonesty. "Validity is related to ensuring a variety of meaningful assessment activities that foster contextual, inquiry-based learning and multidimensional perceptions. It is also related to formative feedback's effectiveness in terms of its adequacy, immediacy, stimulating meaningful interactions, and support for learners. Reliability involves chances for ongoing documentation and monitoring learning which informs the feedback process. The issue of dishonesty in online formative assessment, which relates to students truly owning their work, depends on the degree of inherent validity and reliability. This implies that dishonesty can be minimized through enhancing the identified aspects of validity and reliability" [4, p. 2341].

Analysis of the latest relevant research and publications. Online assessment is a significant technological advancement that involve the educational and the evaluating system. A study of the useful literature manifests that e-assessment in online education is a complicated process. For the last years a number of scientific papers are dedicated to the principles of e-assessment. R. Kelly, J. Orlando, C. Pedersen, R.White, D. Smith, P. Shank, R. Dennick, S. Wilkinson, N. Purcell, F. Worrell, J. Gikandi, D. Morrow, N. Davis and others investigated e-assessment from various points.

AIM AND TASKS / МЕТА ТА ЗАВДАННЯ

The **purpose** of the study is to determine the theoretical and didactic basis of the analysis of e-assessment in online education, the knowledge and skills of students in higher schools.

The following **tasks** are taken into consideration for the research:

- to clarify the essence, the types and the tools of evaluation system;
- to analyze pedagogical and methodological literature in terms of the problem;
- to investigate the number of ways of assessing students' knowledge in online lessons.

THE THEORETICAL BACKGROUNDS / ТЕОРЕТИЧНІ ОСНОВИ ДОСЛІДЖЕННЯ

There are a number of ways to assess students' knowledge in online education. This includes online quizzes, essay questions, drag-and-drop activities, dialogue simulations, and online interviews. "Game-type activities" and "Forum posts" are also included here.

Online quizzes are a traditional assessment tool and encourage students to study and research. Quiz questions can be in the form multiple choice, fill in the blanks, etc. and their main advantage is that they are short and easy to be evaluated. Online quizzes are an ideal tool for measuring learning outcomes across a wide audience.

Open-ended or essay-type questions are one of the most popular assessment methods. They encourage learners to explore their own thoughts, feelings and judgements and test their understanding of the subject. This type of question encourages critical thinking and is the most appropriate way to assess advanced learning.

Drag and drop type of assessment connects the obtained information with other topics and implements practical application. Thus, pictures, texts, various topics are presented to students for investigation and discussion, and the obtained result is then shared with the teacher.

Video conferencing is of particular importance in online interviews.

The level of mastery of the material given to students can be tested through dialogue simulations. This activity can also be a good learning support for students who want to brush up on skills they haven't used in a while.

Online surveys allow the audience to get direct feedback about their learning experience. Online surveys are very attractive to learners because they get the opportunity to share their ideas and demonstrate their capabilities.

Game-type activities turn a series of test questions into a game. As an example, we can show the game "trivia". This game allows the student to answer a certain number of questions within a certain period of time and receive points based on the number of correct answers. These game-based assessments are fun rather than "test" in nature, so they are considered indicators of actual skills and knowledge.

Quizlet and Kahoot are two popular programs that teachers can use to create fast-paced interactive learning games in online learning. Quizlet lets the students create online flashcards to learn terms and definitions, while Kahoot lets them set up engaging quizzes and score students for answering quickly and correctly. The programs like GimKit, Formative, and Plickers can be included here.

The other way of assessment is forum posts. A forum is an online discussion board organized around a topic. At this time, students are asked critical and thought-provoking questions during the lesson and answer them thinking. Their answers are posted on the forum and declared open for discussion.

This method is used to test students' communication, collaboration and understanding of the subject. We have already covered some assessment tools that are perfect for online assessment. A number of tools have a great importance in online assessment. They are the followings:

1. *iSpring Suite*. It is a suitable e-Learning authoring tool that teachers like. It allows the learners to create interactive tests, surveys and dialogue simulations for student assessment, as well as PowerPoint-based courses, video lessons, interactions and flipbooks. Despite having so many features, the toolkit is quite easy to use.

2. *Socrative* is a quiz tool that allows to create quizzes with multiple choice, true/false and short answer questions. It packs a lot of exciting features as a fun Space Racing game.

3. *Spiral* is a set of programs related to formative assessment. A teacher can provide timed assessment and listen to students, turn slides into discussion topics, allow students to co-create and share presentations, and turn videos into live chats with questions and quizzes.

4. *Peergrade* is an online platform for students to survey their peers. After the teacher sets up the assignments, the students start working on it and then submit their work – as text, files, videos, links or even Google docs. Students can review each other's work and provide feedback.

5. *EdPuzzle* is a tool specially designed for working with videos. It allows both teachers and students to add sounds, resources, comments and quizzes to videos. Through Edpuzzle, teachers can track whether students have watched the videos, and whether they have understood the content.

6. *Mentimeter* allows the teacher to build presentations with 13 interactive question types, including word clouds and quizzes, and observe the students' answering questions and engaging with the presentation in a given time frame. Through this tool, results can be exported in PDF or Excel file and students' results can be analyzed.

7. *Google Forms* is a simple tool widely used to create surveys and graded quizzes. The teacher can create multiple-choice or short-answer questions for students, record correct answers and scores, provide feedback on correct and incorrect answers.

8. *Quizalize* is very similar to Kahoot. It allows students to choose or prepare from over 12,000 officially released tests on teacher-created resources. A teacher can get instant information on each student's progress and provide them with different resources depending on their quiz score.

9. *Nearpodvirtual* reality is a web-based tool for conducting interactive lessons with engaging activities such as simulations and quizzes. It allows students to be aware of how far they are with formative assessments, including surveys and open-ended questions. You can get student feedback in teacher post-session reports [18].

Among the types of assessment, original and true evaluation is of special importance. Regardless of the type, authentic or original assessment is often combined with opportunities for practice. Actual assessment is often done throughout the course. Unlike traditional assessment (such as essays and multiple-choice exams), authentic assessment requires students to engage in scenarios or experiences that are complex, realistic and sometimes messy [16].

P. Shank's thoughts on several benefits of authentic assessment are interesting. He identifies several major problems with assessment in the online environment: 1) using the wrong type of assessment (performance assessments and test assessments); 2) not creating reliable (enough) assessments and using poorly written multiple assessments; 3) choice tests and so on [11, p. 5].

Although it is difficult to overcome all these challenges in authentic assessment, it has several advantages. Thus, authentic assessment breaks the traditional paradigm of multiple-choice or auto-scoring tests and quizzes. This assessment also forces students to memorize the expected answers. Real assessment, on the other hand, is mainly student-centered and to demonstrate their practical activities.

Original Evaluation also has some drawbacks and they create challenges in online learning. First of all, authentic assessment requires more time from teachers and it takes longer than the average quiz or test. Since such

assessments are task-based, they consist of a series of modules. To create an authentic assessment for the students living in different geographic locations is a challenge and this challenge can vary by discipline. Furthermore, unlike many traditional assessments, true assessment is mainly subjective, because these types of assessments typically cover more complex levels of learning and the assessment will take longer. An authentic assessment usually requires detailed, personalized and specific feedback. In authentic assessment the teacher should know the students' skills in advance and develop them during the lesson.

In authentic assessment a great deal of tools are conducted. One of them is rubrics. Rubrics are a powerful tool for many types of assessment, and they are an important component of authentic assessment. Original grading is quite subjective and rubrics provide that teachers' consecutive grading from assessment to assessment and from student to student. After identifying the task and key performance criteria (i.e. what students will do and what criteria are in place to make sure students do it well), the next step is to develop a rubric [9, p. 18].

A rubric is a scoring tool that allows teachers as well as students to judge their work. There are two main types of rubrics: analytical and unitary. Analytical rubrics are more appropriate when evaluating complex performance tasks because, they allow users to judge and score each identified characteristic separately [9, p. 18].

Assessment in an Online Environment also has some challenges. Teachers need to be more innovative in their assessments. This is because it is not so easy to do some of the group exercises that can usually form part of the course assessment. This is possible when everyone is together in one class, but not so easy when all students study separately away from the university. For example, in-class tests often take place during a module and are easier to organize when everyone is in the same room. Universities are also concerned that online students may be more prone to cheating than those on campus. Hence, it leads to innovative assessments for online learners. Assessment methods for anyone studying online are different from traditional assessment [10, p. 40].

We completely agree with the view points that the object of the online assessment is rather pedagogical, not technological. The evidence is that online assessments should not merely be transferred from a paper based approach (with multiple choice, true/false, etc. type questions) and is therefore both time-consuming and costly to prepare [14, p. 43].

We put an experiment among 69 students of Azerbaijan University of Languages in the field of e-learning assessment. I taught them English as a

second language. The research questions were introduced them after then we tried to give descriptive statistics of the survey. The charts below reveal e-learning assessment in online lessons.

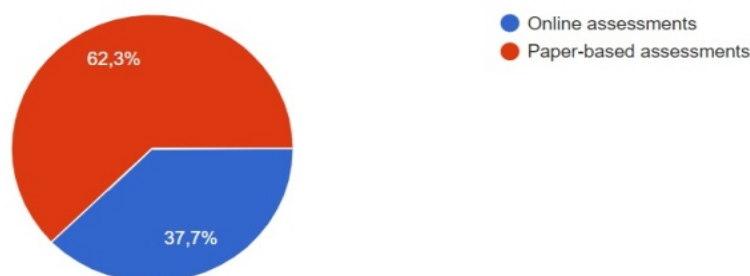
RESEARCH METHODS / МЕТОДИ ДОСЛІДЖЕННЯ

The survey enables us to collect the necessary information on students' attitudes on using of e-assessment. The questionnaire was made available on the Internet and redistributed among the students of the Azerbaijan University of Languages. We used Google Forms as an instrument to collect students' feedbacks.

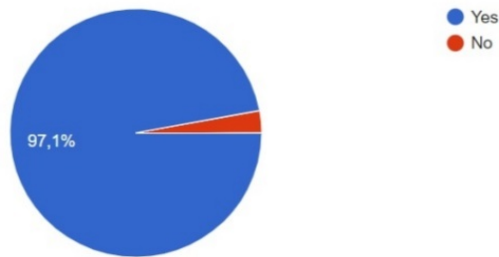
The results of the questionnaire gives us information that the total number of respondents is 69. The first question is aimed to identify "Online assessments are better than to paper-based assessments". Of the 69 respondents who completed the questionnaire, nearly two-thirds have indicated online assessments (43 students). The second question has shown an interesting result. 67 students thought that teachers' technological skills help them to assess students using various techniques, only a minority agreed with this view. Answering this question "Can the students be evaluated well enough in online education?" nearly a third of the students disagree (24 respondents). The options are different to the fourth inquiry. (Online assessment measures the students' achievements honestly). 32 students had difficulty to answer and they chose a neutral way, very small minority (3 students) agreed with this view point. Approximately a similar answer was given to the fifth question. 33 students were sure, 36 were not sure that online assessment allow teachers to measure learning outcomes more accurately.

Assessment in online lessons

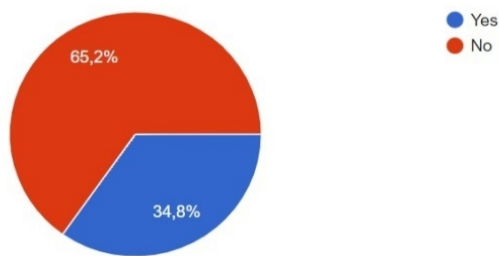
1. Which assessments are better?



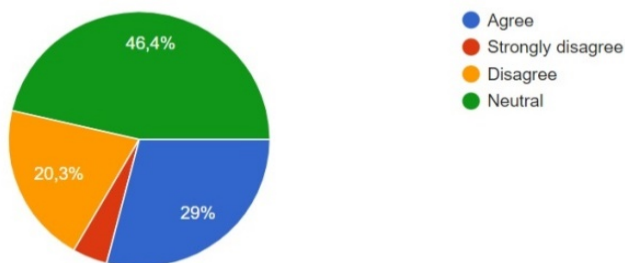
2. Do teachers' technological skills help them to assess students using various techniques?



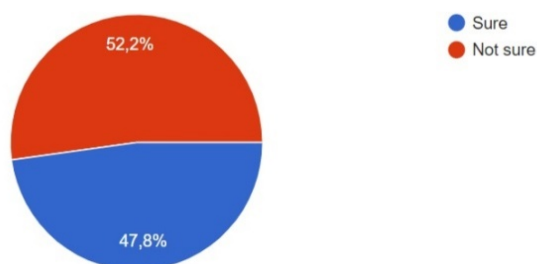
3. Can the students be evaluated well enough in online education?



4. Online assessment measures the students' achievements honestly.



5. Does online assessment allow teachers to measure learning outcomes more accurately?



RESEARCH RESULTS / РЕЗУЛЬТАТИ ДОСЛІДЖЕННЯ

During the pandemic years online learning was adopted in many higher institutions and to assess the students was realized remotely. Passing exams in this period was so difficult and stressful. Proctored exams influenced the students' performance adversely. Facing technical difficulties, supporting and solving the problem was not easy for the teachers during the exam.

The following research methods for the implementation of the task were used:

1. Theoretical analysis. 2. Questionnaire survey. A written survey was conducted among 69 students of AUL located in Baku.

The current research paper seeks to answer the following questions:

1. Assessment is an important part of teaching process.
2. It is the final stage of the pedagogical process.
3. It is a component of education and is closely related to other components.

4. Assessment testifies the excellence of the education system, identifies and diagnoses the directions of development, finds the way to achieve the goal.

The researches reveal that the teachers should follow for online assessments the followings:

- Interactive learning opportunities should be increased;
- The teachers should plan and discuss academic integrity in the online environment with the students;
- Instructions, rubrics, and expectations must be clear and the teachers should give an opportunity to the students to ask questions, discuss the given problems;
- Assessments should be provided accurately.

CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH / ВИСНОВКИ ТА ПЕРСПЕКТИВИ ПОДАЛЬШИХ ДОСЛІДЖЕНЬ

The analysis of the given article gives us an opportunity to reveal the importance of the assessment in educational institutions. The results show that traditional assessment methods are no longer valid. The issues like plagiarism, cheating, checking the identity of the tests were complained by the teachers. Mainly online exams let students to cheat, copy the assignments from various websites without paraphrasing the statements. Very often the students ask about postponing the submission of the assignments.

The obtained results delineate that the online assessment among the students is not as effective as offline assessment, because it is difficult to realize

in online education, nevertheless it is a unique method in some situations.

So, we can summarize our view points as followings:

- assessment should be chosen correctly and should be appropriate;
- evaluation should be specific, fair and democratic;
- evaluation should be effective (profitable) and humane;
- assessment should be purposeful, effective and result-oriented;
- it should be chained and conducted regularly;
- evaluation should be given according to logical thinking.

We believe that with developing these assessment parameters we can improve the quality of education and organize the learning process consciously.

Prospects for further research in this directi. Here are still many ways to improve the assessment. The implementation of the assessment will depend on the students' stage, the subject area, the assessment's purpose, the priorities and direction of the university. Online assessment must be held in the productive classroom activities, and the students should be announced the strengths and weaknesses of their performances.

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ОЦІНЮВАННЯ В ОНЛАЙН-ОСВІТІ

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Анотація. У статті подано коротку інформацію про оцінювання в онлайн-навчанні. За останнє десятиліття розвиток онлайн-освіти значно зріс. Він виріс з експериментальної новинки до майже неминучого інструменту навчання, змінює учнів і процес навчання, а також практику викладання. У період пандемії онлайн-навчання стало альтернативою як для вчителів, так і для учнів. Школи та університети були змушені покращити своє технологічне обладнання для онлайн-освіти. Призупинивши очні заняття, електронне навчання стало єдиною можливістю спілкування викладачів та студентів. Електронне навчання виявилось корисним у цих критичних ситуаціях, звичайно, впровадження технологій в освіту викликало деякі проблеми для вчителів. Відсутність фізичної взаємодії між викладачами та студентами під час онлайн-оцінювання створювало певні труднощі. Електронне навчання – це онлайн-метод навчання без фізичного втручання вчителя та учнів. У літературі поняття електронного навчання не широко обговорюється як електронне навчання. Електронне навчання, електронне викладання включає технічне поєднання контенту, досвіду, педагогіки, знань через численні засоби масової інформації, і використання цих теорій навчання означає досягнення як формальних, так і неформальних навчальних цілей. Б. Уилсон, С. Людвиг-Хардман та інші визначають наступні завдання, які вчителі мають виконувати під час онлайн-навчання: «Надати навчальні плани, навчальні ресурси, інструменти спілкування та стратегії навчання; контролювати та оцінювати навчання, забезпечувати зворотній зв'язок, виправлення та оцінювання; визначати та вирішувати навчальні, міжособистісні та технічні проблеми й створювати навчальну спільноту, в якій учні відчувають себе у безпеці та вірять, що їхні внески слухні. Безумовно, довгий список обов'язків, до яких більшість професорів не були готові у процесі соціалізації в академічний світ" [13]. "Електронне навчання" поєднує усі бажані режими, як візуальний,

звуковий, читання/письмо та кінестетичний (VARK). ІКТ заохочують самостійність викладання та навчання, створюють конструктивні фактори навчання, підвищують послідовність навчання, покращують облік навчальних досягнень, зміцнюють практику оцінювання. Дж. Хоскінс описує три якості, необхідні для того, щоб бути електронним учителем, і обговорює сім принципів належної практики, які допомагають учителям досліджувати перехід від відмінного традиційного вчителя до чудового електронного вчителя. Ці сім принципів: (1) заохочувати контакт між студентом і викладачами; (2) розвивати взаємність і співпрацю між студентами; (3) надихати на активне навчання; (4) надавати швидкий зворотній зв'язок; (5) приділяти увагу часу на виконання завдання; (6) передавати високі очікування; та (7) поважати різноманітні таланти та способи навчання [6, с. 53–56]. Ці сім принципів однаково добре застосовуються у традиційному та електронному класі. Слід зазначити, що електронне навчання не є синонімом навчання онлайн. Електронне навчання – це поєднання очного та дистанційного навчання. Для електронного навчання необхідно підключатися в електронному вигляді, тому що Інтернет-ресурси є неминучими для електронного вчителя. Як показано, електронне навчання є фундаментальною складовою кожного освітнього закладу. В електронному навчанні інструменти та платформи відіграють вирішальну роль. До інструментів можна включити подкасти, відеокліпи, проектори, електронні книги, відкриті освітні ресурси. Є платформи електронного навчання: World Wide Web (WWW), Learning Management System, Skype, WhatsApp & Zoom, Microsoft Teams тощо. «Електронне навчання» як термін з'явилося в середині 1990-х років, коли Інтернет почав набирати популярність і комп'ютерне або веб-навчання було включено до програми електронного навчання. Це використання ІКТ в освітньому процесі, коли вчителі та учні дистанційовані місцезнаходженням, часом або тим чи іншим, щоб покращити освітній досвід і продуктивність.

Ключові слова: онлайн-освіта; електронне оцінювання; технологічне обладнання; електронне навчання; впровадження; оригінальне оцінювання; достовірне оцінювання.

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