

UDC 372.881.111.1(043.5)
DOI <https://doi.org/10.24919/2308-4863/62-2-52>

Olena CHEKHRATOVA,
orcid.org/0000-0002-7022-2042
PhD (Educational, Pedagogical Sciences)
Lecturer at the Department of Practice of Oral and Written English
H.S. Skovoroda Kharkiv National Pedagogical University
(Kharkiv, Ukraine) elena.chekhratova@gmail.com

ASSESSING STUDENTS' ACADEMIC ACHIEVEMENTS USING GOOGLE FORMS

The use of technology in education has seen a significant surge in recent years, driven in part by the Covid-19 pandemic and other factors such as the military invasion in Ukraine. While online learning has many advantages, including adaptability and convenience, there are also challenges to be addressed, such as motivating unengaged students and promoting collaboration and communication. Assessment is a crucial aspect of language instruction, and online classes present unique challenges in this area. However, Google Forms offers a user-friendly and flexible tool for educators to create and customize assessments, as well as collect and analyze data easily. The tool provides immediate feedback to both students and teachers, enabling teachers to assess the effectiveness of their teaching methods and identify areas that need improvement. Google Forms can also be used to foster learner autonomy and responsibility by allowing students to provide their own tasks for assessment. This approach increases student motivation and engagement and helps develop their professional skills. The instructor's role is to check the samples and upload them into the Google Form, saving time and allowing students to learn and revise material in an engaging form. However, there are some limitations to Google Forms as an assessment tool. Cheating during tests is a concern, and teachers must raise students' awareness of ethical behavior. Another limitation is the lack of formatting options, such as italicizing or boldfacing text. Additionally, Google Forms does not allow mathematical symbols, limiting its use for science courses. While this tool offers many benefits for assessing students' academic performance and promoting learner autonomy, there are also limitations and challenges that must be addressed. With continued development and improvement, Google Forms has the potential to become an even more powerful tool for educators in the future.

Key words: assessment, monitoring, Google Forms, learner autonomy, study motivation, reflection.

Олена ЧЕХРАТОВА,
orcid.org/0000-0002-7022-2042
PhD (Освітні, педагогічні науки),
викладач кафедри практики англійського усного і писемного мовлення
Харківського національного педагогічного університету імені Г.С. Сковороди
(Харків, Україна) elena.chekhratova@gmail.com

ОЦІНЮВАННЯ ОСВІТНІХ ДОСЯГНЕНЬ СТУДЕНТІВ ЗА ДОПОМОГОЮ GOOGLE FORMS

Використання інформаційно-комунікаційних технологій в освіті значно зросло за останні роки, частково через пандемію Covid-19 та інші фактори, такі як військове вторгнення в Україну. Хоча онлайн-навчання має багато переваг, включаючи адаптивність і зручність, існують також проблеми, які необхідно вирішити, наприклад, мотивація незацікавлених студентів і сприяння розвитку співпраці. Оцінювання є важливим аспектом викладання мови, а онлайн-класи створюють унікальні виклики в цій сфері. Однак Google Forms пропонують зручні і гнучкі інструменти для викладачів, які дозволяють створювати тест для оцінювання, використовуючи різні налаштування, а також легко збирати й аналізувати дані. Інструмент забезпечує миттєвий зворотній зв'язок як для студентів, так і для викладачів, що дозволяє останнім оцінювати ефективність своїх методів викладання та визначати сфери, які потребують вдосконалення. Google Forms також можна використовувати для розвитку автономії та відповідальності студентів, дозволяючи їм створювати власні завдання для оцінювання. Такий підхід підвищує мотивацію та зацікавленість студентів і допомагає розвивати їхні професійні навички. Роль викладача полягає в тому, щоб перевірити запропоновані зразки і завантажити їх у Google Forms, заощаджуючи час і дозволяючи студентам вивчати і повторювати матеріал у цікавій формі. Однак є деякі обмеження щодо використання Google Forms як інструменту оцінювання. Списування під час тестів викликає занепокоєння, і педагоги повинні підвищувати обізнаність студентів про етичну поведінку. Ще одним обмеженням є відсутність опцій форматування, таких як курсив або напівжирний текст. Крім того, Google Forms не дозволяють використовувати математичні символи, що обмежує можливості використання для технічних і природничих дисциплін. Хоча цей інструмент пропонує багато переваг для оцінювання академічної успішності

студентів та сприяння розвитку їхньої автономії, він також має певні обмеження та проблеми, які необхідно вирішити. Завдяки постійному розвитку та вдосконаленню, Google Forms можуть стати ще більш потужним інструментом для освітян у майбутньому.

Ключові слова: оцінювання, моніторинг, Google Forms, навчальна автономія, навчальна мотивація, рефлексія.

Introduction. The use of technology in education has become increasingly popular in recent years due to the Covid-19 pandemic and the implementation of martial law in Ukraine because of the military invasion in the country. Educators and learners are already used to using various digital tools to enhance the learning experience, but there is always a way to excel.

Digital learning enhances students' learning experience. It is widely acknowledged that the future of education will be heavily influenced by technology, affecting not only the learning process but also students and teachers. Technology has become a fundamental part of people's lives, impacting every aspect of our daily experiences and shaping our decisions. In today's world, students require effective learning systems that fully utilize the potential of digital technology to fulfill their basic needs and essential requirements (Hontarenko, 2021). In order to effectively adapt and function in modern society, individuals must acquire mastery of new technologies and manage large volumes of information (Ведь, 2021). That leads to educators realizing the importance of choosing and applying technological solutions that meet the needs of students and teachers and introducing innovative approaches to distance learning (Bykov et al., 2022: 2).

Higher education in foreign languages aims to cultivate the students' professional, communicative abilities and life skills necessary to navigate both professional and everyday situations (Tuchyna et al., 2021: 89). That provides new opportunities in the organization of the educational process and indicates the modern level of pedagogical activity of the teacher because there is a relationship between the integration of digital tools into traditional teaching methods and the increase in learning motivation and quality of education (Кучерук et al., 2019: 197).

All these factors and available digital tools provide more opportunities for monitoring and managing the education process and ensure the effectiveness of language learning, making it more engaging and less time-consuming. However, it raises questions about conducting online lessons and the issue of assessing the student's performance.

Analysis of recent studies and publications. The primary objective of establishing distance learning is facilitating access to educational resources by leveraging advanced technologies. It also aims to create an environment that enables students to study at their

convenience, at a pace of their choice, and from any location (Kryshtanovych et al., 2020: 349).

Creating a favorable learning environment that corresponds with the content, forms, and methodologies of education is essential for the success of university education. The conditions under which the educational process is implemented significantly determine its effectiveness (Chekhratova & Pohorielova, 2022). This leads us to the questions of implementing blended learning (Nikolaeva et al., 2019) and reflection (Krapivnyk et al., 2021; Bondarenko, 2021), choosing educational pathway (Tuchina et al., 2020), and increasing students' responsibility (Deci & Ryan, 2002; Mitchell & Ream, 2015) and study motivation (Nikolaeva & Synekop, 2020; Tsymbal, 2019; Maslova, 2019). Learners with high levels of motivation can attain optimal results in language learning as they define their learning goals, complete complex tasks without assistance, and actively participate in various activities; students with moderate levels of motivation can achieve satisfactory results, although they require additional guidance; learners with low levels of motivation may only achieve minimal results, preferring simple tasks and avoiding effort (Nikolaeva & Synekop, 2020: 178–179).

Another milestone in enhancing the effectiveness of learning is connected with using digital tools in the educational process (Borysko, 2019; Gurevych & Kademiya, 2016; Ostroha et al., 2022). Scholars promote using Google tools for education as a free resource and an effective tool to ensure the engagement of the students and provide opportunities for monitoring learners' academic achievements, namely for engaging students and promoting their self-reflection (Nguyen et al., 2018), for ensuring students' willingness and readiness of asynchronous learning (Tuchyna et al., 2021), for promoting responsibility in terms of language learning (Pohorielova, 2022), for professional training and advances in academic research (Nikolaeva & Koval, 2019), for developing learner autonomy (Borova et al., 2021), and for conducting formative and summative assessment (Saleh Alharbi et al., 2021).

The above-mentioned proves that scholars recognize that using digital tools is essential for education, particularly for achieving academic success, due to the importance of factors such as student autonomy, motivation, and self-regulated learning. Thus, **the purpose of the article** is to explore the impact of

using Google Forms for conducting assessment of students' academic performance, their study motivation and promoting reflection.

Results and discussion. Teaching online has numerous advantages, such as greater adaptability, the capacity to communicate with people from any place, and convenience. However, as educators discover, online teaching also comes with various issues, including motivating unengaged students, technical difficulties, and promoting collaboration and communication. Additionally, assessment, a crucial and multifaceted aspect of language instruction, can be challenging when conducting classes online.

The relationship between education and assessment is such that educators use them together to attain the desired learning outcomes. With technological progress, the approach to teaching a foreign language has become more adaptable, and online assessments allow teachers to keep track of learners' progress. In language education, great attention is paid to developing learner autonomy, with educators increasingly recognizing the importance of developing students' ability to take responsibility for their own learning. And here, the use of technology has opened up new opportunities. This includes working with electronic teaching materials and receiving remote consultation and testing. The teacher's role shifts towards coordinating students' work, providing individual guidance and step-by-step supervision, monitoring and correcting the learning process (Kovalenko, 2023: 26).

In order to promote individual responsibility among the agents involved in the educational pro-

cess during distance learning, higher education institutions are altering their approaches to educational organization. They are placing greater emphasis on the student's personality and their level of personal responsibility as essential factors in ensuring the sustainability and efficacy of modern higher education (Pohorielova, 2022: 150).

There are several possibilities for evaluating the progress of students' learning through online educational platforms to foster a sense of responsibility for their own learning, and ensuring subject-subject pedagogical interaction in the learning process (Dmitrenko, 2021: 46).

The choice of Google Forms as a tool for researching the issue of assessing students' academic achievements is explained by its user-friendly interface, flexibility in creating and customizing assessments, and the ability to collect and analyze data easily. Additionally, Google Forms allows for easy sharing and collaboration among multiple users, making it a popular choice for educators and researchers. Google Forms provide various question types, including multiple-choice, short answer, and essay questions, and are not restricted, as commonly mistaken, to multiple-choice but can be created to stimulate more profound student thinking where they need to do more than just a click to answer (Nguyen et al., 2018: 77). Moreover, it enables the integration of multimedia resources, such as images and videos, and can be easily shared with students through email or a link.

Google Forms also provide immediate feedback, allowing students to begin questioning their under-

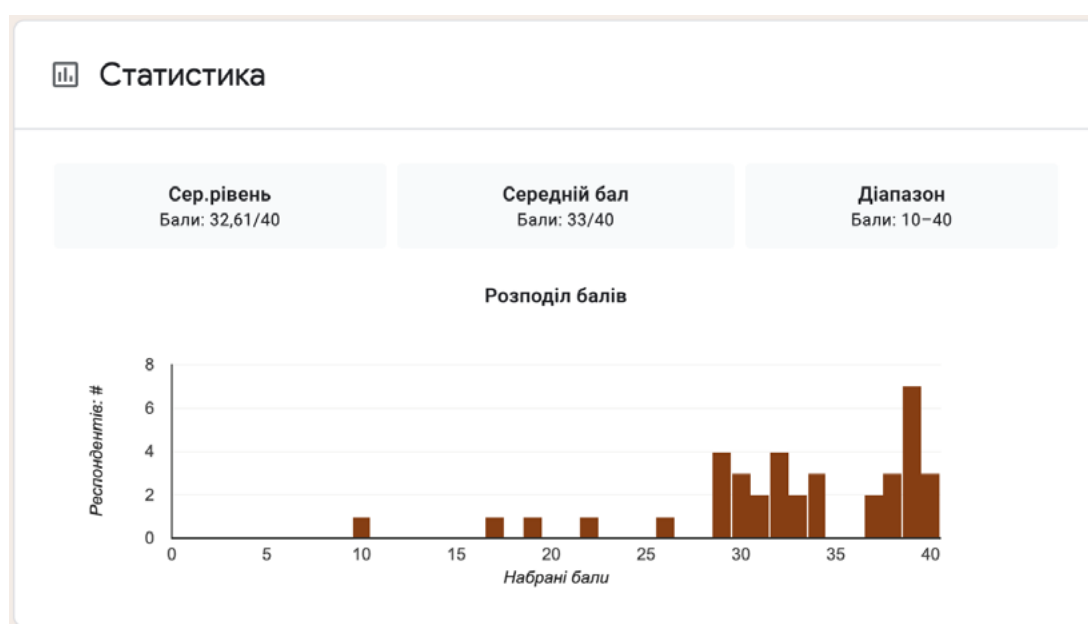


Fig. 1. Automatically generated statistics based on the respondents' answers in Google Forms

standing and asking for help. In turn, educators can assess how well students understand the material; student responses give instructors ideas about which concepts need to be revisited or how to adapt follow-up lessons to the student's needs (Nguyen et al., 2018: 78).

Another advantage of using this tool for assessment is autonomically generated statistics (Fig. 1) that shows the statistical distribution and allow an educator to get a general idea of the learners' results. Surely, this data is not final and may undergo some changes, especially if there are open-ended tasks, transforma-

tion, or gap-filling. In such a case, we need to Release scores (Fig. 2) and see how the diagram changes. Though, analyzing the data of the questions that are answered incorrectly in most of the cases (Fig. 3) gives a teacher a hint that these tasks might be too complicated, not clear, and are worth reformulating or that the topics covered there are not entirely clear and need either additional time and practice or revision.

Another benefit for a teacher is that they can quickly assess the effectiveness of the learning and teaching methods used in the classroom, e.g., some

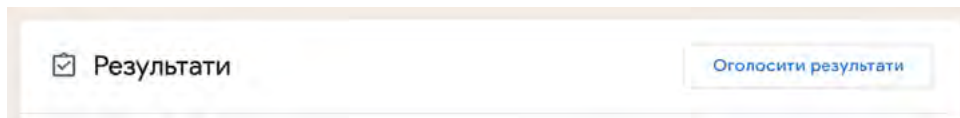


Fig. 2. Option "Release score"

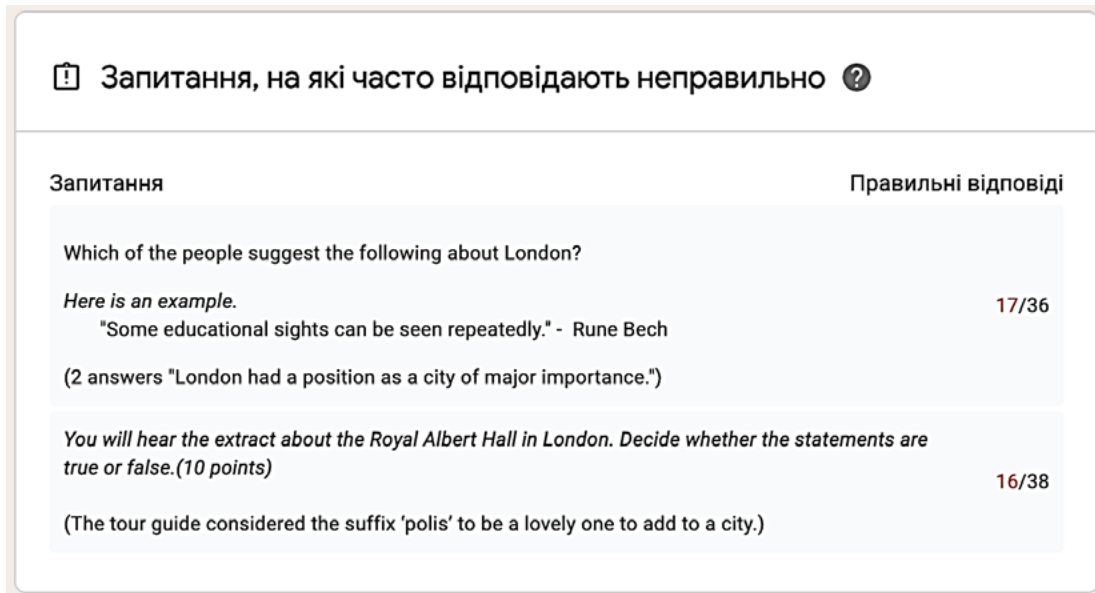


Fig. 3. Questions that respondents mostly fail to answer correctly

6. an air-hostess (change into a politically correct equivalent)

38 відповідей

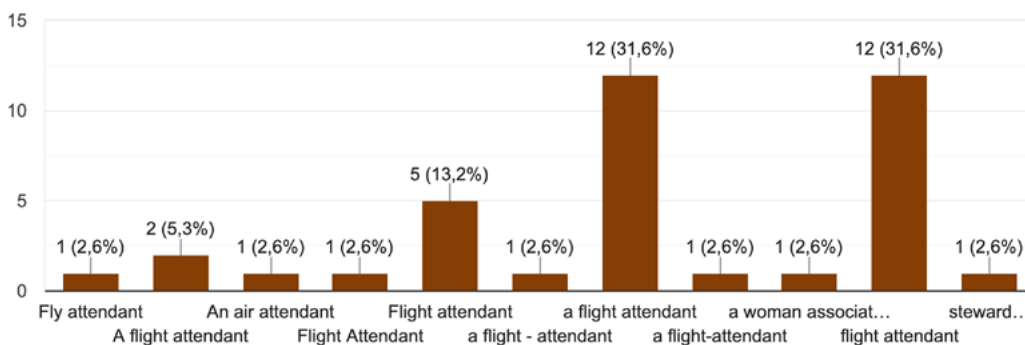


Fig. 4. Example of the variety of answers in Google Forms (lexical issues)

35.

21 відповідь

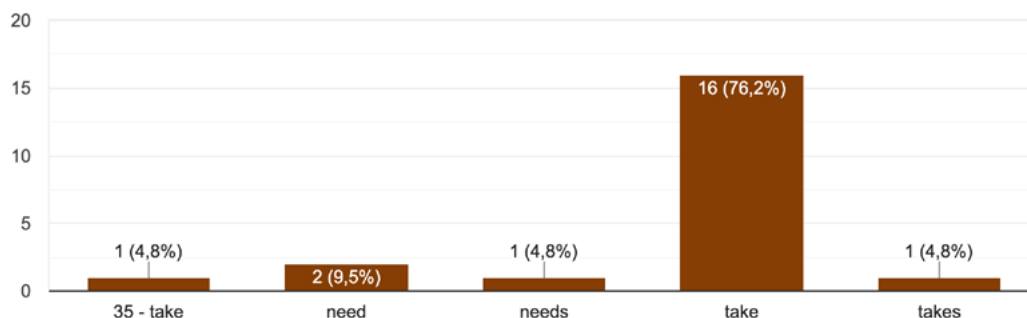


Fig. 5. Examples of the variety of answers in Google Forms (grammar issues)

lexical material that students fail to comprehend (Fig. 4). On the other hand, there is a significant drawback to providing such a task as if students are asked to type in the answers, there will be a variety of options as the system will consider all the forms (singular and plural) and register (e.g., capital letter) as different options. There is a way to eliminate such a problem – to upload all the possible options for the correct answer into the system, but such a solution may be too time-consuming.

A much better situation may be analyzing grammar issues and topics (Fig. 5), as a teacher can easily see that in the example, students lack the understanding of making up a grammatically correct sentence in Present Simple.

To ensure fostering learner autonomy and responsibility, students are asked to provide their own tasks for the test. The instructor's task here will be to check the samples and upload them into the Google Form. This kind of task has many benefits: it increases students' study motivation as they have an opportunity to be effective and efficient participants in the learning process, can do their bit in the testing and monitoring system; it allows them to develop their professional skills and they see how hard it is to create a task and make it worth doing; it ensures that they will be able to do some tasks correctly and will not spend much time during the test as they already know 1 or 2 answers to the questions; it helps eliminate some mistakes that they might do while creating the test.

This also solves the problem of timing. A teacher spends the time only to check the tasks, not create them from scratch. The students learn and revise the material in an engaging form. This kind of asynchronous work will not fossilize a student's mistakes in speaking and pronunciation (Tuchyna et al., 2021: 90) as these are mostly writing tasks connected

with grammar and vocabulary skills, and students are always welcome to get professional assistance from the instructor.

As part of autonomous learning, feedback informs students about possible ways to solve specific problems and achieve the goal of a given task. Such feedback encourages and stimulates students to complete complex tasks despite specific difficulties and supports them in learning a foreign language. The teacher's comment implies cooperation with the student, as he or she expects the student's next steps (Dmitrenko & Budas, 2021: 26).

Under such circumstances, students involved in the educational process can utilize their acquired knowledge and experience more efficiently for personal and professional growth. The student actively participates in classroom activities and recognizes the significance of enhancing their skills and abilities beyond the formal educational setting.

Additionally, asking the student to create several questions for the test ensures a friendly atmosphere in the classroom since they associate themselves with the group, feel a collective responsibility for completing the tasks, and will not blame or express a biased attitude towards their groupmates as they do not know who has done which part of the test.

Another crucial issue here is promoting students' reflection. Encouraging critical reflection among students can aid them in developing their professional skills during their university studies and improve their future endeavors. By utilizing reflection techniques during tasks, students can employ various resources and strategies, apply different principles, and effectively articulate their own opinions while implementing their ideas (Lavrysh, 2020: 325).

Although Google Forms provide many excellent opportunities for assessing students' academic per-

formance and ensuring the development of learner autonomy, responsibility, and reflection, some drawbacks and limitations are considered below.

One of the most significant problems that needs to be solved is that despite the usefulness of online assessments, some cheating during tests is inevitable. That issue concerns not only online study and scoring but the scale of breaking academic integrity while completing such tasks is higher. Thus, teachers must raise students' awareness of ethical behavior and remind them that cheating will not help them later in their professional development (Saleh Alharbi et al., 2021: 149).

Another limitation is that no formatting options such as italicizing, underlining, text, or boldfacing (Nguyen et al., 2018: 78). That might not be a great problem for language learners, although it is always good to know what you have such an option in case some piece of information has to be specifically highlighted.

Another issue that may be applied to Science students is that Google Forms do not allow mathematical symbols or a way to enter anything but the most basic of equations (Nguyen et al., 2018: 78).

Educators argue that using such forms of assessment may not be effective as students may get dis-

tracted, and it can never be checked whether they were fully engaged in the process.

Finally, some students may not have access to reliable internet or technology, which could limit their ability to participate in online assessments. Some students may simply not be comfortable with or proficient in using technology for assessments, which could impact their performance.

Conclusions and prospects for further research.

The integration of digital tools has been observed in the education sector, as online assessment using various platforms such as Google Forms has become possible. Students exhibit positive and negative attitudes while taking online assessments through Google Forms, and analyzing their behavior can lead to better performance measurement. Allowing students to take part in creating the tests and evaluation criteria for them will benefit in engaging them in the teaching and learning process, developing their learner autonomy and collaborative skills, and promoting reflection. Although this online tool has advantages and disadvantages and some limitations, it can be defined as an effective online assessing tool. Further research could focus on enhancing time limitations and exploring other platforms for online assessments.

BIBLIOGRAPHY

1. Borova T., Chekhratova O., Marchuk A., Pohorielova T., Zakharova A. Fostering Students' Responsibility and Learner Autonomy by Using Google Educational Tools. *Revista Romaneasca pentru Educatie Multidimensionala*. 2021. Vol. 13, No. 3. P. 73–94. <https://doi.org/10.18662/rrem/13.3/441>
2. Chekhratova, O., Pohorielova, T. Developing future foreign language teachers' professional competence by creating a favorable educational environment. *Актуальні питання гуманітарних наук*. 2022. № 51. P. 730–737. <https://doi.org/10.24919/2308-4863/51-112>
3. Deci, E. L., & Ryan, R. M. *Overview of self-determination theory: An organismic dialectical perspective*. 2002.
4. Hontarenko, I. Peculiarities in Distance Learning of Foreign Language Using Moodle Platform. *Educational Challenges*. 2021. № 26(2), P. 52–62. <https://doi.org/10.34142/2709-7986.2021.26.2.05>
5. Kovalenko, O. Distance learning technologies in a higher educational institution: Experience in using and implementing e-learning courses in the educational process. *ScienceRise: Pedagogical Education*. 2023. № 1(52), P. 23–29. <https://doi.org/10.15587/2519-4984.2023.275501>
6. Krapivnyk G., Tuchyna N., Bashkir O., Borysov V., Gonchar O., Plakhtyeyeva V. Modelling the Process of Reflection with Pre-Service Student Teachers. *Revista Romaneasca Pentru Educatie Multidimensionala*. 2021. Vol. 13, No. 3. P. 116–133. <https://doi.org/10.18662/rrem/13.3/443>
7. Kryshchanovych, M., Gavrysh, I., Khlitobina, O., Melnychuk, I., Salnikova, N. Prospects, Problems and Ways to Improve Distance Learning of Students of Higher Educational Institutions. *Revista Romaneasca Pentru Educatie Multidimensionala*. 2020. № 12(2), P. 348–364. <https://doi.org/10.18662/rrem/12.2/282>
8. Mitchell, D. E., Ream, R. K. *Professional Responsibility: The Fundamental Issue in Education and Health Care Reform*. Springer International Publishing, 2015. <https://doi.org/10.1007/978-3-319-02603-9>
9. Nguyen, H., Stehr, E., Eisenreich, H., An, T. Using Google Forms to Inform Teaching Practices. *Proceedings of the Interdisciplinary STEM Teaching and Learning Conference*. 2018. № 2(1). P. 74–79. <https://doi.org/10.20429/stem.2018.020110>
10. Nikolaeva, S., Synekop, O. Motivational Aspect of Student's Language Learning Style in Differentiated Instruction of English for Specific Purposes. *Revista Romaneasca Pentru Educatie Multidimensionala*. 2023. № 12(2), P. 169–182. <https://doi.org/10.18662/rrem/12.2/272>
11. Nikolaeva S., Zadorozhna I., Datskiv O. Development of Pre-Service English Teachers' Language Skills and Learner Autonomy via Blended Learning. *Revista Romaneasca pentru Educatie Multidimensionala*. 2019. Vol. 11, No. 2. P. 222–239. <https://doi.org/10.18662/rrem/126>
12. Pohorielova, T. Google Classroom as a Tool for Enhancing the Individual Responsibility of the Students under the Conditions of Distance Education. *Педагогіка формування творчої особистості у вищій і загальноосвітній школах*. 2022. №85, P. 155–160. <https://doi.org/10.32840/1992-5786.2022.85.26>

13. Saleh Alharbi, A., Abdullah Alhebshi, A., Meccawy, Z. EFL Students' and Teachers' Perceptions of Google Forms as a Digital Formative Assessment Tool in Saudi Secondary Schools. *Arab World English Journal*. 2021. № 7(1), P. 140–154. <https://doi.org/10.24093/awej/call7.10>
14. Tsybmal, S. V. Enhancing Students' Confidence and Motivation in Learning English with the Use of Online Game Training Sessions. *Information Technologies and Learning Tools*. 2019. № 71(3), P. 227–235. <https://doi.org/10.33407/itlt.v71i3.2460>
15. Tuchina N., Borysov V., Podhurska I., Kupina I., Borysenko N. Developing Learner Autonomy via Choosing a Person's Educational Pathway. *Revista Romaneasca pentru Educatie Multidimensionala*. 2020. Vol. 12, No. 1. P. 209–225. <https://doi.org/10.18662/rrem/210>
16. Tuchyna, N., Perlova, V., Chukhno, O. English Trainee Teachers' Perspective on Synchronous and Asynchronous Language Teaching. *Вісник Житомирського державного університету імені Івана Франка. Педагогічні науки*. 2021. № 2 (105), P. 88–97. [https://doi.org/10.35433/pedagogiy.2\(105\).2021.88-97](https://doi.org/10.35433/pedagogiy.2(105).2021.88-97)
17. Биков, В., Овчарук, О., Іванюк, І., Пінчук, О., Гальперіна, В. Сучасний стан використання цифрових засобів для організації дистанційного навчання в закладах загальної середньої освіти: результати опитування 2022. *Інформаційні технології і засоби навчання*. 2022. № 90(4), С. 1–18. <https://doi.org/DOI:10.33407/itlt.v90i4.5036>
18. Бондаренко, Л. Рефлексивне навчання професійному саморозвитку майбутнього вчителя музичного мистецтва. *Актуальні питання гуманітарних наук*. 2021. № 35 (1). С. 258–263. <https://doi.org/10.24919/2308-4863/35-1-40>
19. Бориско Н. Ф. Веб-сайт ученика по іноземним мовам: роль, особливості та вимоги. *Інформаційні технології і засоби навчання*. 2019. № 2 (70). С. 180–193. URL : <https://journal.iitta.gov.ua/index.php/itlt/article/view/2355>.
20. Ведь, Т. М. Теоретичні засади формування трансверсальних компетентностей на сучасному етапі розвитку суспільства. *Збірник наукових праць. Педагогічні науки*. 2021. №93. С. 64–69. <https://doi.org/10.32999/ksu2413-1865/2020-93-9>
21. Гуревич, Р. С., Кадемія, М. Ю. Смарт-освіта – нова парадигма сучасної системи освіти. *Теорія і практика управління соціальними системами: філософія, психологія, педагогіка, соціологія. НТУ 'ХПІ'*. 2016. №4. С. 71–78.
22. Дмитренко, Н. Є. Методичні засади автономного навчання майбутніх учителів професійно орієнтованого англійського спілкування. *Вісник КНЛУ. Серія Педагогіка Та Психологія*. 2021. № 34. С. 41–47. <https://doi.org/10.32589/2412-9283.34.2021.236902>
23. Дмитренко, Н. Є., Будас, Ю. О. Застосування зворотного зв'язку в автономному навчанні іноземного спілкування. *Вісник ЛНУ імені Тараса Шевченка*. 2021. №8 (346). Ч. 2. С. 23–33. [https://doi.org/DOI: 10.12958/2227-2844-2021-8\(346\)-2-23-33](https://doi.org/DOI: 10.12958/2227-2844-2021-8(346)-2-23-33)
24. Кучерук, О. А., Караман, С. О., Караман, О. В., & Віннікова, Н. М. Використання ІКТ для формування фахових компетентностей у майбутніх учителів української мови і літератури. *Інформаційні технології і засоби навчання*. 2019. № 71(3), С. 196–214. <https://doi.org/10.33407/itlt.v71i3.2814>
25. Лавриш Ю. Е. Дидактична система індивідуалізації навчання іноземної мови студентів інженерних спеціальностей у технічних університетах : дис. ... д. пед. наук. Полтава : Полтавський національний педагогічний університет імені В.Г. Короленка, 2020. 489 с.
26. Маслова К. І. Мотивація студентів до самостійної роботи як один із важливих чинників у навчальному процесі. *Педагогіка формування творчої особистості у вищій і загальноосвітній школах*. 2019. Т. 2, № 64. С. 34–36. <https://doi.org/10.32840/1992-5786.2019.64-2.6>
27. Ніколаєва, С. Ю., Коваль, Т. І. Використання інформаційно-комунікаційних технологій для формування науково-дослідницької компетентності майбутніх докторів філософії. *Інформаційні технології і засоби навчання*. 2019. № 70(2), С. 237–256. <https://doi.org/10.33407/itlt.v70i2.2739>
28. Острога, М., Шамоля, В., Шершень, О. Цифрові освітні платформи як інструмент реалізації неформальної освіти. *Education. Innovation. Practice*. 2022. № 10(4), С. 27–36. <https://doi.org/10.31110/2616-650X-vol10i4-004>

REFERENCES

1. Borova T., Chekhratova O., Marchuk A., Pohorielova T., Zakharova A. Fostering Students' Responsibility and Learner Autonomy by Using Google Educational Tools. *Revista Romaneasca pentru Educatie Multidimensionala*. 2021. Vol. 13, No. 3. P. 73–94. <https://doi.org/10.18662/rrem/13.3/441>
2. Chekhratova, O., Pohorielova, T. Developing future foreign language teachers' professional competence by creating a favorable educational environment. *Humanities science current issues*. 2022. № 51. P. 730–737. <https://doi.org/10.24919/2308-4863/51-112>
3. Deci, E. L., & Ryan, R. M. *Overview of self-determination theory: An organismic dialectical perspective*. 2002.
4. Hontarenko, I. Peculiarities in Distance Learning of Foreign Language Using Moodle Platform. *Educational Challenges*. 2021. № 26(2), P. 52–62. <https://doi.org/10.34142/2709-7986.2021.26.2.05>
5. Kovalenko, O. Distance learning technologies in a higher educational institution: Experience in using and implementing e-learning courses in the educational process. *ScienceRise: Pedagogical Education*. 2023. № 1(52), P. 23–29. <https://doi.org/10.15587/2519-4984.2023.275501>
6. Krapivnyk G., Tuchyna N., Bashkir O., Borysov V., Gonchar O., Plakhtyeyeva V. Modelling the Process of Reflection with Pre-Service Student Teachers. *Revista Romaneasca Pentru Educatie Multidimensionala*. 2021. Vol. 13, No. 3. P. 116–133. <https://doi.org/10.18662/rrem/13.3/443>
7. Kryshatanovych, M., Gavrish, I., Khlitobina, O., Melnychuk, I., Salnikova, N. Prospects, Problems and Ways to Improve Distance Learning of Students of Higher Educational Institutions. *Revista Romaneasca Pentru Educatie Multidimensionala*. 2020. № 12(2), P. 348–364. <https://doi.org/10.18662/rrem/12.2/282>
8. Mitchell, D. E., Ream, R. K. *Professional Responsibility: The Fundamental Issue in Education and Health Care Reform*. Springer International Publishing. 2015. <https://doi.org/10.1007/978-3-319-02603-9>

9. Nguyen, H., Stehr, E., Eisenreich, H., An, T. Using Google Forms to Inform Teaching Practices. *Proceedings of the Interdisciplinary STEM Teaching and Learning Conference*. 2018. № 2(1). P. 74–79. <https://doi.org/10.20429/stem.2018.020110>
10. Nikolaeva, S., Synekop, O. Motivational Aspect of Student's Language Learning Style in Differentiated Instruction of English for Specific Purposes. *Revista Romaneasca Pentru Educatie Multidimensionala*. 2023. № 12(2), P. 169–182. <https://doi.org/10.18662/rrem/12.2/272>
11. Nikolaeva S., Zadorozhna I., Datskiv O. Development of Pre-Service English Teachers' Language Skills and Learner Autonomy via Blended Learning. *Revista Romaneasca pentru Educatie Multidimensionala*. 2019. Vol. 11, No. 2. P. 222–239. <https://doi.org/10.18662/rrem/126>
12. Pohorielova, T. Google Classroom as a Tool for Enhancing the Individual Responsibility of the Students under the Conditions of Distance Education. *Pedagogy of the formation of a creative person in higher and secondary schools*. 2022. № 85, P. 155–160. <https://doi.org/10.32840/1992-5786.2022.85.26>
13. Saleh Alharbi, A., Abdullah Alhebshi, A., Meccawy, Z. EFL Students' and Teachers' Perceptions of Google Forms as a Digital Formative Assessment Tool in Saudi Secondary Schools. *Arab World English Journal*. 2021. № 7(1), P. 140–154. <https://doi.org/10.24093/awej/call7.10>
14. Tsymbal, S. V. Enhancing Students' Confidence and Motivation in Learning English with the Use of Online Game Training Sessions. *Information Technologies and Learning Tools*. 2019. № 71(3), P. 227–235. <https://doi.org/10.33407/itlt.v71i3.2460>
15. Tuchina N., Borysov V., Podhurska I., Kupina I., Borysenko N. Developing Learner Autonomy via Choosing a Person's Educational Pathway. *Revista Romaneasca pentru Educatie Multidimensionala*. 2020. Vol. 12, No. 1. P. 209–225. <https://doi.org/10.18662/rrem/210>
16. Tuchyna, N., Perlova, V., Chukhno, O. English Trainee Teachers' Perspective on Synchronous and Asynchronous Language Teaching. *Zhytomyr Ivan Franko State University Journal. Pedagogical Sciences*. 2021. № 2 (105), P. 88–97. [https://doi.org/10.35433/pedagogy.2\(105\).2021.88-97](https://doi.org/10.35433/pedagogy.2(105).2021.88-97)
17. Bykov, V., Ovcharuk, O., Ivaniuk, I., Pinchuk, O., Galperina, V. Suchasnyi stan vykorystannia tsyfrovyykh zasobiv dlia orhanizatsii dystantsiinoho navchannia v zakladakh zahalnoi serednoi osvity: rezultaty opytuvannia 2022 [The current state of the use of digital tools for organization of distance learning in general secondary education institutions: 2022 results]. *Information Technologies and Learning Tools*. 2022. № 90(4). C. 1–18. <https://doi.org/DOI:10.33407/itlt.v90i4.5036> [in Ukrainian].
18. Bondarenko, L. Refleksyivne navchannia profesiinomu samorozvytku maibutnoho vchytelia muzychnoho mystetstva [Reflective training in the professional self-development of the future teacher of music art]. *Aktualni pytannia humanitarnykh nauk*. 2021. P. 258–263. <https://doi.org/10.24919/2308-4863/35-1-40> [in Ukrainian].
19. Borysko N. Veb-sayt uchenika po inostrannyim yazyikam: rol, osobennosti i trebovaniya [Foreign language coursebook website: its role, peculiarities and requirements]. *Information Technologies and Learning Tools*. 2019. № 2 (70). P. 180–193. URL : <https://journal.iitta.gov.ua/index.php/itlt/article/view/2355>. [in Russian].
20. Ved, T. Teoretychni zasady formuvannia transversalnykh kompetentnosti na suchasnomu etapi rozvytku suspilstva [Theoretical basis of transversal competences formation in modern level of society development]. *Zbirnyk naukovykh prats. Pedagogichni nauky*. 2021. №93. P. 64–69. <https://doi.org/10.32999/ksu2413-1865/2020-93-9> [in Ukrainian].
21. Gurevykh, R., Kademiya M. Smart-osvita – nova paradyhma suchasnoi systemy osvity [Smart-education – a new paradigm of modern education system]. *Teoriia i praktyka upravlinnia sotsialnymi systemamy: filozofia, psykholohiia, pedahohika, sotsiologiia*. NTU 'KhPI'. 2016 . № 4. P. 71–78. [in Ukrainian].
22. Dmitrenko, N. Metodychni zasady avtonomnoho navchannia maibutnikh uchyteliv profesiino orientovanoho anhlovnoho spilkuvannia [Methodological Principles of Autonomous Learning of Professionally Oriented English Communication of Prospective Teachers]. *Visnyk KNLU. Series "Pedagogy and Psychology"*. 2021. № 34. C. 41–47. <https://doi.org/10.32589/2412-9283.34.2021.236902>
23. Dmitrenko, N., Budas, Iu. Zastosuvannia zvorotnoho zviazku v avtonomnomu navchanni inshomovnoho spilkuvannia [Application of feedback in autonomous learning of foreign language communication]. *Bulletin of Luhansk Taras Shevchenko National University*. 2021. № 8 (346). Ч. 2. C. 23–33. [https://doi.org/DOI: 10.12958/2227-2844-2021-8\(346\)-2-23-33](https://doi.org/DOI: 10.12958/2227-2844-2021-8(346)-2-23-33)
24. Kucheruk, O., Kucheruk, S., Karaman, O., Vinnikova, N. Vykorystannia IKT dlia formuvannia fakhovykh kompetentnosti u maibutnikh uchyteliv ukrainskoi movy i literatury [Using ICT tools for forming professional competences of future teachers of the Ukrainian language and literature]. *Information Technologies and Learning Tools*. 2019. № 71(3), C. 196–214. <https://doi.org/10.33407/itlt.v71i3.2814>
25. Lavrysh Y. Dydaktychna systema indyvidualizatsii navchannia inozemnoi movy studentiv inzhenernykh spetsialnosti u tekhnichnykh universytetakh [Didactic system of foreign language personalization for students majoring in engineering at technical universities]: dys. ... d. ped. nauk. Poltava : Poltavskiy natsionalnyi pedahohichnyi universytet imeni V.H. Korolenka, 2020. 489 p. [in Ukrainian].
26. Maslova K. Motyvatsiia studentiv do samostiinoi roboty yak odyn iz vazhlyvykh chynnykiv u navchalnomu protsesi [Motivation of students for independent work as one of the important factors in educational process]. *Pedagogy of the formation of a creative person in higher and secondary schools*. 2019. T. 2, № 64. P. 34–36. <https://doi.org/10.32840/1992-5786.2019.64-2.6> [in Ukrainian].
27. Nikolaeva, S., Koval, T. Vykorystannia informatsiino-komunikatsiinykh tekhnolohii dlia formuvannia nauko-vo-doslidnytskoi kompetentnosti maibutnikh doktoriv filozofii [Use of Information and Communication Technologies for Research Competency Formation of Future Doctors of Philosophy]. *Information Technologies and Learning Tools*. 2019. № 70(2), C. 237–256. <https://doi.org/10.33407/itlt.v70i2.2739>
28. Ostroha, M., Shemonia, V., Shershen, O. Tsyfrovii osvityni platformy yak instrument realizatsii neformalnoi osvity [Digital educational platforms as a tool for the implementation of informal education]. *Education. Innovation. Practice*. 2022. № 10(4), C. 27–36. <https://doi.org/10.31110/2616-650X-vol10i4-004>