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ONLINE PLATFORMS FOR AUTOMATED LANGUAGE ASSESSMENT

The modern educational process cannot be imagined without the use of digital technologies, which not only increase the effectiveness of learning, but also open up new opportunities for assessing knowledge. One of the current trends in the field of teaching foreign languages is the use of online platforms for automated assessment of language skills. Such platforms allow you to objectively and quickly check the level of proficiency in a foreign language, analyze errors and provide feedback. The article examines the features of using such platforms in the educational process of philology students of Poltava State Agrarian University.

The purpose of the study is to analyze the functionality and capabilities of leading online platforms for assessing language skills, as well as determine their effectiveness based on a pedagogical experiment. Two groups of students were formed within the experiment: control and experimental. Students in the experimental group used such online platforms as Duolingo English Test, Grammarly, Write & Improve, TestEnglish, and Exam.net during the academic semester to check their language skills and receive automated feedback. The control group studied using traditional methods without the use of digital tools.

The results of the experiment demonstrated a higher level of success of students in the experimental group, which indicates a positive impact of using online platforms on the formation of reading, writing and listening comprehension skills. The functionality of each of the platforms was analyzed, in particular the possibility of automated checking of grammar, vocabulary, sentence construction and writing texts of various genres. The advantages and disadvantages of using these platforms in the educational process are presented, and recommendations for their integration into the educational environment of higher education institutions are presented.

The conclusions indicate the prospects for further research, which include analyzing the impact of online platforms on the development of students' oral and communicative skills, as well as improving the methods of using digital tools to form foreign language competence.

Keywords*: online platforms, automated assessment, language skills, foreign language, digital technologies, educational process.*

Problem statement. In the current context of the digital transformation of education, there is a growing need for technological solutions that facilitate effective and objective assessment of language skills. Traditional testing methods, which involve manual checking of results by teachers, are often labour-intensive, subjective and time-consuming. This, in turn, limits the possibilities for prompt assessment of students, especially in distance or blended learning environments [11]. With the development of Internet technologies and artificial intelligence, it has become possible to create online platforms that automate the assessment process, which significantly reduces the workload of teachers and ensures more prompt and objective testing.

Online platforms for automated language assessment use adaptive algorithms, artificial intelligence and large-scale language models to analyse various aspects of language ability, such as grammar, vocabulary, pronunciation, listening and writing [6]. These tools have the potential to significantly improve learning efficiency by allowing students to receive instant feedback and work on tasks in real time. However, despite the obvious advantages, the implementation of such platforms raises a number of problems and issues that require detailed study.

One of the main concerns is the reliability and validity of automated assessments, as algorithms may have limitations in recognising subtleties of language variation or detecting contextual errors. In

addition, automated systems may not take into account individual student characteristics, such as their learning needs or learning style. There are also risks associated with the possibility of manipulation or fraud by users, as not all platforms can provide adequate authentication of answers.

Given these challenges, research on online platforms for automated language assessment is important from both a scientific and practical point of view [9]. This research not only helps to identify the strengths and weaknesses of existing technologies, but also helps to develop new recommendations for improving automated assessment tools, which will ultimately contribute to improving the quality of learning and the objectivity of student language assessment.

Analysis of recent research and publications. An analysis of the latest research and publications on the topic of online platforms for automated language assessment shows that this issue is being actively studied both in Ukraine and abroad. In particular, both scholars and practitioners who are trying to integrate modern technologies into the process of teaching foreign languages show considerable interest in this topic.

International studies have examined a wide range of platforms for automated language skills testing. In particular, some studies focus on the use of adaptive tests that adjust to the level of learners' knowledge, such as TOEFL, IELTS, Duolingo [1]. The authors note that the use of artificial intelligence in such systems allows for fast and accurate assessment, but the problem remains in ensuring full reliability of assessments due to the limitations of algorithms in understanding complex contextual errors [5].

An important aspect is the study of language adaptation and pronunciation checking in automated systems. Given the diversity of accents and language variations, some platforms are developing algorithms to better recognise different language variants, which minimises the risk of assessment errors [7].

In Ukraine, the issue of automated language assessment is also being actively considered in the context of modernising the educational process. Studies by scholars such as S.M. Sydorenko [13] and demonstrate successful results of integrating online testing into the educational process, in particular for assessing foreign language grammar and vocabulary [12]. However, there is a need to improve technologies for learning pronunciation and listening, as existing platforms cannot yet fully take into account the individual characteristics of students, which is especially important for teaching languages with a rich phonetic structure.

These studies confirm the importance of creating effective and reliable tools for automated language assessment. They also point to the need for further development of algorithms to provide more accurate results and improve the user experience on online platforms.

The purpose of the article is to study the opportunities and challenges of using online platforms for automated language skills assessment, to analyse the effectiveness of such tools in comparison with traditional testing methods, and to identify areas for improving these platforms to increase their reliability and accuracy in the educational process.

Presentation of the main material. Online platforms for automated language assessment are innovative tools used to test and improve students' language skills. They provide an opportunity to effectively assess various aspects of language, including grammar, vocabulary, pronunciation, listening and writing, using technologies that integrate artificial intelligence, adaptive algorithms and large-scale language models.

Let's take a look at the main online platforms for automated language testing. They are divided into several types depending on which aspects of speech they assess:

1. Platforms for assessing grammar and vocabulary. Such platforms (e.g. Duolingo, Babbel) usually offer interactive tasks that allow students to practice grammatical structures and vocabulary at different levels of difficulty. Assessment is carried out through automatic answer detection, which allows students to receive instant feedback.

2. Listening assessment platforms. Platforms that use audiovisual materials to assess listening comprehension help students improve their listening comprehension skills, including through interactive exercises with choosing the correct option after listening to a text or dialogue. Examples include the Voxy or Listening Practice platforms.

3. Platforms for pronunciation assessment. Pronunciation assessment is one of the most challenging tasks for automated systems. Platforms such as Rosetta Stone use speech recognition technology to analyse a user's pronunciation by comparing it to native speaker models. These systems can assess pronunciation accuracy and intonation, but their accuracy is sometimes limited by the variety of accents and phonetic variations.

4. Writing assessment platforms. Platforms such as Grammarly use artificial intelligence to check the grammar, style and spelling of written texts. However, they cannot fully assess the creative aspects of writing, such as argumentation or structured text.

For a more detailed understanding of the effectiveness of online platforms for automated language assessment, it is worth considering specific platforms that are actively used in the educational process. Each of them has its own tools, features and capabilities for testing language skills. The following is an overview of such platforms as Duolingo, Rosetta Stone, Grammarly, TOEFL and Voxy, with a detailed analysis of their tools and assessment capabilities.

Duolingo.

Duolingo is one of the most popular online language learning platforms that uses game elements to engage users. The main assessment tool of this platform is interactive exercises, which include translation tasks, filling in the blanks, choosing the correct options, etc [3]. Users receive instant feedback on the correctness of their answers, which allows them to gradually improve their language skills.

Main features:

- Grammar and vocabulary assessment. The platform offers a variety of exercises that allow students to practice the correct use of grammatical structures and expand their vocabulary.

- Adaptability. The platform's algorithms adjust to the user's level, offering tasks that match their knowledge.

- Instant feedback. Each task is accompanied by an explanation of mistakes, which helps to promote self-knowledge and improve results.

Thanks to its interactivity and accessibility, Duolingo is an effective tool for assessing basic language skills.

Rosetta Stone.

Rosetta Stone is one of the most well-known language learning platforms that makes extensive use of speech recognition technology to assess pronunciation [10]. The platform focuses on integrating language learning with everyday situations to create a more natural learning experience.

Key features:

- Pronunciation assessment. Rosetta Stone uses speech recognition technology to more accurately assess the pronunciation of users by comparing it to native speakers.

- Interactive tasks. Students complete listening, grammar, writing, and pronunciation tasks to help develop comprehensive language skills.

- Adaptive learning. The algorithms of this platform adapt to the needs of the student, providing tasks according to their level of knowledge.

Rosetta Stone is a powerful tool for developing communication skills, including pronunciation and listening comprehension.

Grammarly.

Grammarly is a platform that specialises in checking grammar, spelling and style of written texts. It uses artificial intelligence to analyse texts and provide recommendations on how to improve the quality of written material.

Key features:

- Grammar and style assessment. The platform checks the text for grammatical errors, incorrect use of vocabulary, and stylistic inaccuracies, which makes it useful for written communication.

- Analysis of the text structure. Grammarly offers recommendations for improving text structure, logical connections, and consistency.

- Feedback. Students receive instant feedback on their mistakes with explanations, which helps them to realise common mistakes and avoid them in the future.

This platform is extremely useful for students who want to improve their English writing and grammar skills.

TOEFL (Test of English as a Foreign Language).

TOEFL is an internationally recognized test for assessing English language proficiency, covering four aspects of language skills: listening, reading, writing, and speaking [4]. The test is automated and consists of several sections that assess all aspects of communication.

Key features:

- Listening and Reading. The test contains tasks on listening comprehension and reading texts, which allows you to assess the level of auditory perception and comprehension of the text.

- Written and Speaking. Students record their responses on a given topic, which are evaluated by an automatic system according to criteria that include grammar, lexical use, organization of thoughts, and pronunciation.

- International recognition. TOEFL results are used for admission to universities in the United States and other countries, making it an important tool for assessing the level of English language proficiency.

The platform is an effective tool for assessing language skills at a high level and is widely used in the academic environment.

Voxy.

Voxy is an English learning platform that specializes in providing personalized learning programs for each student. It offers interactive lessons based on real news, articles, videos, and more, allowing users to practice English in real-life contexts.

Key features:

- Adaptive learning. The platform personalizes tasks to suit the student's level and learning needs.

- Interactive exercises. Uses video and audio materials to practice listening comprehension, as well as sentence-building and grammar-testing tasks.

- Real-world contexts. Voxy focuses on learning through real-world text and video materials, making the language learning process more natural and closer to everyday life.

This platform is a great tool for students who want to learn a language by focusing on its real-world use in the context of a global world.

Each of these platforms has unique capabilities for automated assessment of different aspects of language skills [2]. Depending on the learning goals, you can choose the platform that best suits your needs. However, all of these platforms have a common goal - to make the learning process more effective and accessible, while providing timely feedback, which is a key factor in the development of language skills in students.

The study conducted an experimental testing of online platforms for automated assessment of language skills in the educational process of philology students at Poltava State Agrarian University. The aim of the experiment was to identify the effectiveness of using such platforms to develop various aspects of language competence: listening, reading, writing, and speaking.

The experiment lasted for one semester and included two groups of students:

- Control group (CG). Studied using traditional assessment methods (classroom testing, written work, oral answers).

- Experimental group (EG). Used online platforms to develop and assess language skills.

The study involved 40 third-year students majoring in Philology (20 people in each group). Before the experiment, both groups underwent an entrance test to determine their basic level of knowledge.

The group of students was divided into experimental and control groups. The experimental group used Duolingo, Rosetta Stone, Grammarly, TOEFL, and Voxy platforms during independent work and homework. The control group studied using traditional methods without the use of digital tools.

Stages of the study:

1. Entrance testing. Assessment of the level of English proficiency through written and oral

tests.

2. Main stage. During the semester, students in the experimental group used the selected online platforms.

3. Final testing. After the end of the experiment, both groups were tested again with similar tasks to compare progress.

Students in the experimental group completed tasks to develop four basic language skills:

- Listening and pronunciation. The Rosetta Stone and Voxy platforms helped students improve their listening comprehension of English and improve their pronunciation thanks to speech recognition technologies.

- Grammar and writing. Grammarly analysed students' written work, identifying grammatical, spelling, and stylistic errors, which helped improve writing skills.

- Vocabulary and reading. Duolingo and Voxy offered interactive tasks to enrich their vocabulary and develop reading skills.

- Language assessment. Test tasks on the TOEFL platform allowed them to determine their level of English proficiency according to international standards.

The results of the study are presented in Table 1. The indicators are presented in percentages (%), which reflect the level of completion of tasks in grammar, vocabulary, listening, writing, and pronunciation.

Table № 1.

Comparative analysis of the results of the control and experimental groups

Skills	Control group (CG) before	KG after	Experimental group (EG) before	EG after	Growth in EG (%)
Grammar	68%	72%	67%	85%	+18%
Vocabulary	70%	74%	69%	86%	+17%
Listening	65%	69%	64%	83%	+19%
Writing	62%	68%	61%	84%	+23%
Pronunciation	66%	70%	65%	82%	+17%

As we can see from the table, students in the experimental group demonstrated significant progress in all aspects of language skills compared to the control group. The largest increase was recorded in written speech (+23%), which indicates the effectiveness of using Grammarly to improve writing. High results were also observed in listening and vocabulary, which confirms the benefits of interactive tasks on the Duolingo and Rosetta Stone platforms.
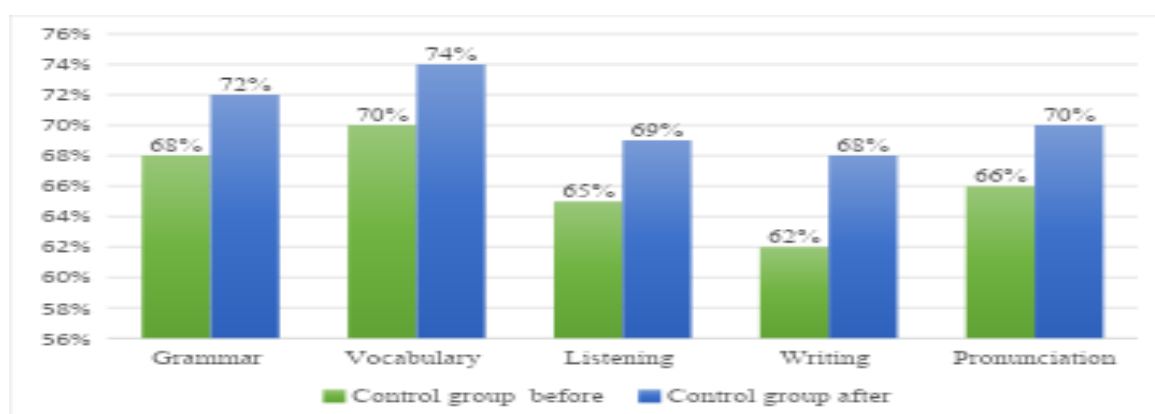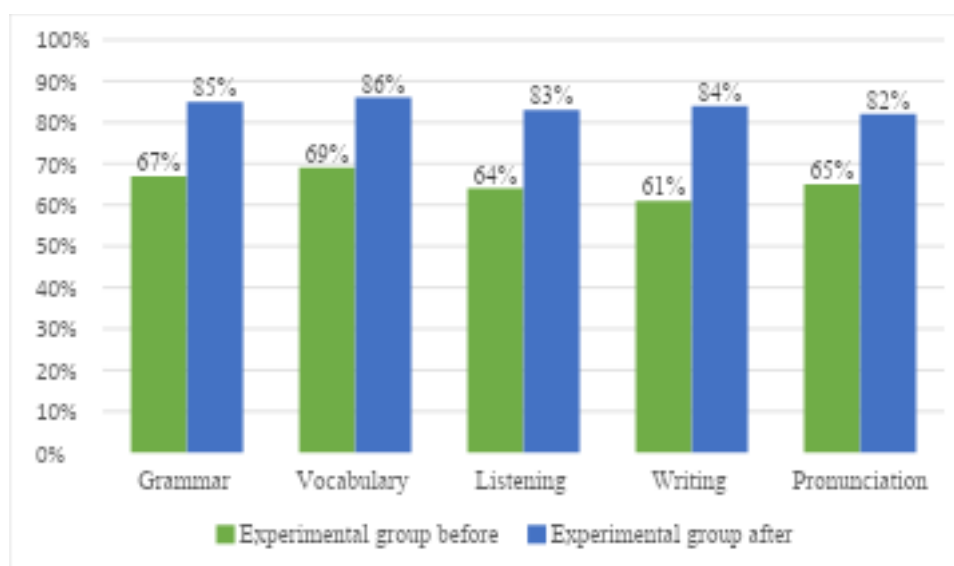

Fig. 1. The level of development of language skills of students in the experimental group before and after the experiment

The control group chart shows a moderate increase in results in all types of speech activities. The increase ranges from 4–6%, which indicates the effectiveness of traditional teaching methods, but the progress is relatively slow (Fig.1).

Fig. 2. The level of development of language skills of students in the control group before and after the experiment

In contrast, the experimental group's chart shows a more pronounced increase in indicators – from 17% to 23% depending on the skill. The greatest progress was achieved in written speech and listening, which indicates the effectiveness of using the Grammarly and Rosetta Stone platforms. The results of grammar, vocabulary and pronunciation also demonstrate significant improvement thanks to Duolingo interactive tasks and adaptive learning on TOEFL Practice Online.

A comparative analysis of both charts confirms that the use of online platforms significantly increases the effectiveness of language skills formation, which makes this approach promising for further implementation in the educational process of philology students.

The results show that using online platforms to assess language skills not only increases the objectivity and accuracy of assessment, but also contributes to improving the level of language proficiency. Automated feedback, adaptive tasks and the possibility of independent practice allow students to focus on their weak areas and make progress faster.

In particular, the Duolingo platform has proven effective in developing lexical and grammatical skills through interactive tasks and gamification of learning. Grammarly has helped students improve their written language by providing instant recommendations on style and grammar. The use of Rosetta Stone has significantly improved the quality of pronunciation and auditory perception thanks to speech recognition technology and realistic dialogues. The TOEFL Practice Online platform has contributed to the comprehensive development of all language skills and increased students' motivation to achieve international standards.

Conclusions and further prospects of the study. The study found that the use of online platforms for automated assessment of language skills contributes to an increase in the level of foreign language proficiency among philology students. The experimental group, which worked with the Duolingo, Grammarly, Rosetta Stone and TOEFL Practice Online platforms one semester, demonstrated significantly better results compared to the control group, which studied using traditional methods. The data obtained indicate the effectiveness of online platforms in the development of all types of speech activity: grammar, vocabulary, listening, writing and pronunciation. The greatest increase was observed in writing, listening and vocabulary, which confirms the effectiveness of using interactive tasks, adaptive learning and instant feedback. In particular, the Grammarly platform turned out to be the most effective for improving writing skills thanks to detailed analysis of texts and recommendations for improving style and grammar. Using Rosetta Stone significantly improved listening and pronunciation skills through interactive exercises and speech recognition technology, while Duolingo and TOEFL Practice Online provided comprehensive vocabulary and grammar development, helping to increase overall language

proficiency.

A comparative analysis of the results of the control and experimental groups confirmed that the use of online platforms allows students to master a foreign language more effectively due to a flexible learning schedule, individualization of tasks and the ability to independently monitor their own achievements. Automated assessment systems ensure objectivity in knowledge testing, reduce the subjective factor and allow for instant feedback, which helps to increase students' motivation to learn and develop self-control skills. In addition, the interactive format of tasks and gamification elements of the platforms make the learning process more interesting and dynamic, which is especially relevant for modern students.

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ОНЛАЙН-ПЛАТФОРМИ ДЛЯ АВТОМАТИЗОВАНОГО МОВНОГО ОЦІНЮВАННЯ

Сучасний освітній процес неможливо уявити без використання цифрових технологій, які не лише підвищують ефективність навчання, а й відкривають нові можливості для оцінювання знань. Однією з актуальних тенденцій у галузі викладання іноземних мов є застосування онлайн-платформ для автоматизованого оцінювання мовних навичок. Такі платформи дозволяють об'єктивно та швидко перевіряти рівень володіння іноземною мовою, аналізувати помилки та надавати зворотний зв'язок. У статті досліджено особливості використання таких платформ у навчальному процесі студентів-філологів Полтавського державного аграрного університету.

Метою дослідження є аналіз функціоналу та можливостей провідних онлайн-платформ для оцінювання мовних навичок, а також визначення їх ефективності на основі проведеного педагогічного експерименту. У межах експерименту було сформовано дві групи студентів: контрольна та експериментальна. Студенти експериментальної групи протягом навчального семестру використовували такі онлайн-платформи, як Duolingo English Test, Grammarly, Write & Improve, TestEnglish, та Exam.net для перевірки своїх мовних знань та отримання автоматизованого зворотного зв'язку. Контрольна група навчалася за традиційною методикою без застосування цифрових інструментів.

Результати експерименту продемонстрували вищий рівень успішності студентів експериментальної групи, що свідчить про позитивний вплив використання онлайн-платформ на формування навичок читання, письма та розуміння на слух. Проаналізовано функціонал кожної з платформ, зокрема можливість автоматизованої перевірки граматики, лексики, побудови речень та написання текстів різних жанрів. Наведено переваги та недоліки використання цих платформ у навчальному процесі, а також представлено рекомендації щодо їх інтеграції в освітнє середовище закладів вищої освіти.

У висновках зазначено перспективи подальших досліджень, які передбачають аналіз впливу онлайн-платформ на розвиток усного мовлення та комунікативних навичок студентів, а також удосконалення методик використання цифрових інструментів для формування іншомовної компетентності.

Ключові слова: онлайн-платформи, автоматизоване оцінювання, мовні навички, іноземна мова, цифрові технології, освітній процес.