Email: jollt@undikma.ac.id

DOI: https://doi.org/10.33394/jollt.v%vi%i.8286

July 2023. Vol.11, No.3 p-ISSN: 2338-0810 e-ISSN: 2621-1378 pp. 390-404

# CLASSTIME.COM AS AN AI-BASED TESTING PLATFORM: ANALYSING ESP STUDENTS' PERFORMANCES AND FEEDBACK

# Fitria Ningsih

English for Specific Purposes (ESP) Lecturer, Faculty, of Sharia and Law, Islamic State University (UIN) Sayyid Ali Rahmatullah Tulungagung, Indonesia

Corresponding Author Email: ningsih.fitria.id@gmail.com

#### Article Info **Abstract** The use of Artificial Intelligence (AI) technology in education has grown in Article History Received: May 2023 popularity. However, its implementation in English language learning Revised: June 2023 assessments, particularly in terms of performance and feedback, remains limited. Published: July 2023 Therefore, this research aimed to evaluate the effectiveness of an AI-based online testing platform, Classtime.com, in teaching tenses in English for Specific Keywords Purposes (ESP). The study used a mixed-methods approach, collecting data from Artificial Intelligence 246 Economic Sharia Law students who took the midterm exam during the 2022technology; 2023 academic year. The data analysis included a quantitative assessment of the Online testing platform; exam results and a qualitative analysis of open-ended questions. The results English for Specific showed that the average score on the exam was 88.21, indicating a high overall Purposes (ESP); performance. Female students scored higher and more consistently than male Classtime.com: students. The qualitative analysis highlighted the positive feedback regarding Performance and Classtime.com, emphasizing its advantages such as immediate feedback and Feedback: personalized learning experiences. However, the study's focus on one language subject limited its generalizability to other subjects. Nevertheless, the use of AIbased online testing in ESP assessment could improve language learning outcomes and contribute to effective teaching practices. Future research should explore the use of AI-based online testing platforms in other language subjects, investigate factors influencing student performance, and examine long-term effects on language learning outcomes and attitudes toward language education and assessment.

How to cite: Ningsih, F. (2023). Classtime.com as an AI-Based Testing Platform: Analysing ESP Students' Performances and Feedback, JOLLT Journal of Languages and Language Teaching, 11(3), pp. 390-404. DOI: https://doi.org/10.33394/jollt.v%vi%i.8286

#### INTRODUCTION

In recent years, the utilization of Artificial Intelligence (AI) technology in the field of education, specifically in the realm of online assessment, has witnessed a notable increase (Chen et al., 2020; González-Calatayud et al., 2021; Huang et al., 2022). Scholars have acknowledged the potential benefits associated with the integration of AI in educational settings, with particular attention given to the advantages of automated scoring and immediate feedback, especially in the context of the COVID-19 pandemic (Hahn et al., 2021). However, despite these advancements, traditional paper-based assessment methods still prevail, presenting challenges for students (Nardi & Ranieri, 2019). As a potential remedy to this predicament, AI-based online testing has been proposed as a viable solution.

AI-based online assessment could evaluate various aspects of language learning, including grammar, vocabulary, reading comprehension, and writing (Jin, 2022; Nardi & Ranieri, 2019). This technology could specifically benefit the teaching of tenses in Economic Sharia Law in English for Specific Purposes (ESP) education. Utilizing AI technology in online testing can provide good results in an objective and accurate evaluation (Preslavsky, 2020). Moreover, ESP courses were specialized forms of English language instruction that

focus on the specific requirements of learners (Fitria, 2020), and AI-based online testing can provide an effective and efficient method for assessing and enhancing students' command of tenses in Economic Sharia Law.

In addition, web-based platforms such as Classtime.com could offer significant advantages for online testing (Saienko & Chugai, 2020). With the use of artificial intelligence, ESP educators may create and deliver online assessments using the platform Classtime.com. A number of features make it possible for educators to design unique tests and exams, gather and analyze students' responses in real time, and give students immediate feedback. These qualities are important for improving students' language proficiency, their learning experience, and determining how well-prepared they are learning.

Moreover, several studies have demonstrated the efficacy of AI-based online testing in enhancing student learning outcomes, especially in English language teaching e.g. tenses. These studies examined various ways of incorporating technology into English language instruction. One study concentrated on formative assessment in a digital learning environment (Inozemtseva et al., 2022), while another proposed an artificial intelligence-based online writing evaluation system (Jin, 2022). A third study developed an English teaching system that combined AI and knowledge recommendation (Sun et al., 2021), and a fourth examined AI-based writing tools for EFL students. A study revealed the efficacy of using Google Classroom, Classtime, and Quizlet to teach English during quarantine (Saienko & Chugai, 2020).

The current research has extensively examined the potential advantages of AI-based online assessment in various aspects of English language instruction. Scholars have explored the implications of incorporating artificial intelligence (AI) technology into the field of language learning and assessment. However, despite the growing body of literature, the practical implementation of AI-based testing platforms, such as Classtime.com, for English language learning remains relatively limited, particularly concerning performance evaluation and feedback provision. This research aims to address this gap by investigating students' performances and feedback regarding the benefits and drawbacks of Classtime.com, an AIbased online testing platform, in the context of teaching tenses in English for Specific Purposes (ESP). By analyzing the outcomes of this study, valuable insights into the potential benefits and challenges associated with the utilization of AI-based online testing, with a particular emphasis on implementing Classtime.com in the instruction of tenses in Economic Sharia Law, can be obtained. Consequently, these findings contribute to the advancement of effective and efficient language assessment practices in ESP education.

Therefore, the research questions of this study are formulated as follows.

- 1. How effective is Clastime.com as an AI-based online test in assessing students' mastery of tenses in Economic Sharia Law?
- 2. What is the impact of Clastime.com as an AI-based online testing platform on the students' academic performances in classes and female and male students' comparison?
- 3. What are the perceptions and attitudes of students toward the use of Clastime.com as AIbased online testing in ESP?

# **Digital Evaluation in Education**

The integration of digital technologies in education has gradually gained popularity lately. Tran et al. (2021) defined digital assessment as the measurement, evaluation, and documentation of students learning using information and communication technologies. According to Isnaini et al. (2021), digital assessment offered several advantages over traditional paper-and-pencil assessments, including increased efficiency, improved accuracy, and enhanced feedback (Kiryakova, 2021). The benefits of digital assessment included the ability to electronically administer and grade exams, provide immediate feedback, and increase assessment efficacy, particularly in large classes. Furthermore, digital assessment has grown in so fast, particularly in higher education institutions where it is used for both formative and summative assessment (Liang et al., 2022; Sillat et al., 2021) with the ability to deliver exams remotely, instantly grading them and immediately provide students. Thus, the use of digital assessment for both formative and summative in higher education institutions continues to increase digital assessment.

Despite these benefits, digital assessment still has some drawbacks. For example, Sillat et al. (2021) observed that potential technical issues, such as system failures and connectivity issues, could impact the validity and reliability of digital assessments. Moreover, the lack of authenticity of digital assessments is a significant concern, especially when it is difficult to verify the test-takers identity (Okada et al., 2019). Furthermore, ensuring fairness was quite difficult because some students might have greater access to technology than others (Langenfeld, 2020).

### **ESP** is English for Specific Purposes

English for Specific Purposes (ESP) is a specialized subfield of English language teaching that focuses on the academic, professional, and vocational language requirements of learners (Fitria, 2020). Due to the technical and specialized terminology used in ESP, teaching tense can be difficult (Alsharif & Shukri, 2018; Enesi et al., 2021). To overcome these obstacles, various strategies had been proposed, such as the use of authentic materials, and the integration of technology and multimedia resources (Kakoulli & Papadima, 2020; Mahamatismiyilovna, 2022). Moreover, Economic Sharia Law is a specialized discipline that necessitates both economics and Islamic principles. Teaching Economic Sharia Law in English could present several challenges, including the use of specialized vocabulary and complex concepts (Hidayati, 2019). Therefore, educators needed to apply teaching material that promotes critical thinking and utilize multimedia resources (Vieira et al., 2021).

Innovative and effective teaching techniques are crucial in ESP education, especially when teaching specialized subjects like Economic Sharia Law. One possible solution is the use of AI-based online testing, which could potentially resolve some of the difficulties associated with teaching tenses in ESP while providing students with an engaging and individualized learning experience. In conclusion, teaching tense in ESP required careful consideration of the specific requirements and interests of students as well as the application of innovative and effective teaching methods (Alsharif & Shukri, 2018).

# Artificial Intelligence (AI) in Language Testing on Classtime.com

Mujtaba & Mahapatra, (2020); Zhu, (2020) described that Artificial Intelligence (AI) was a crucial tool in language testing, offering advantages such as increased efficiency, reduced subjectivity, and improved accuracy. Artificial intelligence has been used to create a range of language testing tools, including chatbots, intelligent tutoring systems, and automated scoring systems. The possibility of bias and the lack of openness in the evaluation process were two issues with the use of artificial intelligence in language testing (Azad et al., 2020; Xu et al., 2021).

A web-based platform called Classtime.com gives teachers a range of tools for carrying out online tests and evaluations. Classtime.com is a web-based platform that provides educators with a variety of tools for administering online exams and assessments. This platform enables educators to create customized assessments, provide students with real-time feedback, and track student performance over time (Saienko & Chugai, 2020). Classtime.com's collaborative features are also advantageous, as they permit multiple instructors to collaborate on the creation of a single assessment.

Educators who use Classtime.com to teach tenses in Economic Sharia Law in English for Specific Purposes can enhance their students' learning experiences by utilizing AI-based

online testing. W. Xu et al. (2023) found that AI-based testing can provide students with personalized feedback, identify areas where they may be struggling, and provide targeted support to help them improve their language abilities. In addition, Classtime.com can assist educators in monitoring student development over time and adjusting their instructional strategies accordingly. However, it was important to evaluate any online platforms prior to using it for language testing and to have a plan in place to assist students who may require additional support with online assessments (Kester, 2022). Overall, Classtime.com is a potential resource for language teachers who want to implement AI-based assessments.

# Previous Research and the Research Gap

Several studies have been conducted to determine the efficacy of AI-based online assessment in English language instruction, particularly ESP classes. The first study on formative assessment in the field of English for Specific Purposes (ESP) in a digital learning environment was conducted by Inozemtseva et al. (2022). The researchers designed criterionbased evaluation assignments and evaluation schemes for a Business English course for BMSTU master's degree students majoring in economics. In addition, they chose the domestic service pruff.me for a digital assessment space (DAS) to implement the formative assessment. The developed evaluation materials were tested remotely by ESP students, and the research demonstrated that incorporating a DAS into a university's digital learning environment could contribute to the effective assessment of ESP students' competence-based learning outcomes if the underlying methodology and formative assessment technology are correctly implemented.

After that, Jin (2022) conducted a study of the use of AI-based online assessment for English writing assessment. The system's hardware configuration had been established and saved in a MySQL database.; the user could submit their work by selecting the "I want to submit" button. The instructor then reviewed and graded the submission. The study also employed artificial intelligence technology to generate topic words automatically. The results of the experiments indicated that the system had a good repair effect, a high evaluation efficiency, and a good evaluation effect and that the hardware module design supports a security mode. In addition, Sun et al. (2021) created an online English-teaching system with an artificial intelligence module and knowledge recommendation. Deep learning and decision tree algorithms were utilized by the system to generate an English instruction assessment implementation model. The study concluded that the system was found effective in enhancing the learning efficacy of students and increasing the relevance of the learning content. It provided teachers with essential data to enhance their instruction and helped students improve their English scores.

Furthermore, Gayed et al. (2022) concentrated on the development of an AI-based web application dubbed "AI KAKU" to assist EFL learners in overcoming the cognitive barriers they encounter when writing in English. To evaluate the prospective impact of AI KAKU on student writing, a counterbalanced experiment was conducted with adult EFL students. AI KAku was a potentially useful instrument for EFL learners who required more structured assistance than traditional word processors, as demonstrated by the results. The study contributed to the use of AI-based tools as non-assessment learning instruments, which have previously received little attention. Concerning the use of Classtime in English teaching, Saienko & Chugai (2020) studied the use of Google Classroom, Classtime, and Quizletintegrated distance learning during quarantine. 35 learners were surveyed using a 10-item, 5point Likert scale, and a mixed-method research design was employed to collect both quantitative and qualitative data. The findings revealed that students evaluated the completion of assignments in Google Classroom positively, as well as the teacher's feedback. 77% of students found Classtime to be effective, while 55% found Quizlet to be effective. The study provided recommendations for home-based English teachers and educators in Ukraine and

abroad. Even though several studies have examined the efficacy of AI-based online testing in English language instruction, there is still crucial to study more on the effectiveness of such testing for teaching tenses. This study intended to address this deficiency by investigating the efficacy of AI-based online assessment on Classtime.com for teaching tenses in English for Specific Purposes (ESP) classes.

#### RESEARCH METHOD

## Research Design

This study employed a comprehensive mixed-method research design, combining both quantitative and qualitative data collection and analysis techniques, in order to thoroughly investigate the effectiveness of AI-based online testing on Classtime.com for the purpose of teaching tenses in the field of Economic Sharia Law. The quantitative component of the research involved the collection and analysis of numerical data, enabling a statistical examination of the outcomes (Dawadi et al., 2021; Strijker et al., 2020). On the other hand, the qualitative component of the study involved the collection of in-depth and descriptive data through various means, including interviews, observations, and open-ended survey questions. By employing this mixed-method approach, the study sought to attain a comprehensive understanding of the subject matter, allowing for a more nuanced and comprehensive analysis of the benefits and drawbacks associated with the utilization of AI-based online testing in this particular educational context.

# **Participants**

The participants in this study were 246 students enrolled in the Economic Sharia Law program at UIN Sayyid Ali Rahmatullah Tulungagung. The sample consisted of 171 female and 75 male students from six distinct classes (A to F) who took the midterm exam during the 2022-2023 academic year. The sample size of 246 was determined based on the total number of students who took the midterm exam. All students are presently enrolled in the English for Specific Purposes course and are in their second semester. This sample was representative of the intended student population for the Economic Sharia Law program at UIN Sayvid Ali Rahmatullah Tulungagung. It is important to observe, however, that the generalizability of the findings may be limited beyond the specific institution and program.

#### **Data Analysis**

In this study, the analysis of quantitative data obtained from the midterm examination results was conducted using descriptive statistics. Descriptive statistics were employed to summarize the data, encompassing measures such as the mean, standard deviation, score frequency, and a gender-based performance comparison between female and male students. By utilizing the AI-based online assessment platform Classtime.com, an overview of the students' comprehension of tenses in Economic Sharia Law was obtained. Furthermore, the qualitative data collected from the opinion survey underwent thematic analysis, which involved the identification of recurring themes and patterns in the students' feedback regarding the effectiveness of the Classtime.com online testing platform powered by artificial intelligence. Thematic analysis is a commonly utilized technique in qualitative research for identifying and analyzing patterns within the data. This method facilitated the comprehensive understanding of the students' perceptions and experiences with the AI-based online testing platform. The analysis process involved identifying themes and interpreting the findings to distinguish the benefits and drawbacks associated with the use of Classtime.com. This approach played a pivotal role in gaining an in-depth comprehension of the students' perspectives on and experiences with the AI-based online testing provided by Classtime.com.

# RESEARCH FINDINGS AND DISCUSSION **Research Findings**

This study revealed the results of midterm exams taken by ESP students enrolled in Economic Sharia Law. The descriptive statistics analysis included the calculation of class mean scores and a comparison of female and male students. In addition, the frequency of scores was analyzed to find out the distribution of scores among students. These analyses assisted in identifying patterns and trends in the performance of the students on the midterm examination, which served as a benchmark for evaluating the efficacy of the AI-based online testing platform using Classtime.com.

Table 1 The Score of Online Testing in Tenses from 6 Classes

	N	Minimum	Maximum	Mean	Std. Deviation
Score Test	246	50	100	88.21	10.778

The data from Table 1 showed the results of a midterm test taken through Classtime.com by 246 students. The minimum and highest scores were 50 and 100, respectively. The students' overall performances on the test were relatively high, as seen by their average score of 88.21 on the mid-test. The scores appeared to be moderately around the mean, as indicated by the standard deviation of 10.778. It could be concluded from the findings that the students successfully completed the online test.

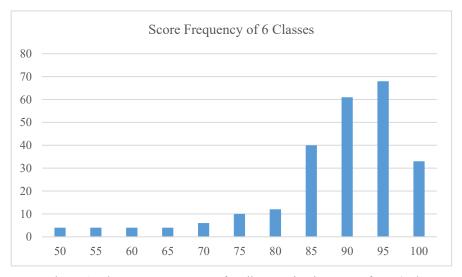


Figure 1. The Score Frequency of Online Testing in Tenses from 6 Classes

Additionally, it can be seen from Figure 1 that the frequency distribution from most of the students received scores between 85 and 95, with a score of 95 representing the highest frequency (68 students). Then from the lower and upper ends of the score arrangement, the frequency dropped to less than 5 students. With a slight skewness towards the higher end of the scoring range, the scores were normally distributed. This indicated that most students performed very well on the online mid-test. Furthermore, the score's frequency between 50 and 70 was quite low which reached below 5 students. Another concern was the score of 100 which reached more than 30 students. This indicated that only small students could achieve a perfect score on the mid-term test. Overall, the mid-term test run well and received good scores in testing the tenses for ESP class students.

	Total of students	Minimum	Maximum	Mean
Class A	37	70	100	85.81
Class B	41	50	100	88.41
Class C	40	50	100	84.75
Class D	42	50	100	86.67
Class E	41	55	100	90.37
Class F	45	55	100	92.56

Table 2 The Score Distribution of Online Testing in Tenses from 6 Classes

The data shown in Table 2 are the score distribution for all six classes which then found the mean from all classes was 88.21. Class F reached the highest mean score of 92.56 then followed by Class E with a mean score of 90.3 and then Class B with a mean score of 88.41. However, Class A, Class C, and Class D reached mean scores below the overall mean of 88.21, with Class C having the lowest mean score of 84.75. It can be concluded that the results indicated that there was a difference in the total number of students which the range between 37 as the lowest and 45 as the biggest number of students. Another difference was the classes' performances which were above average and below average.

Table 3 The Score Comparison between Female and Male Students of Online Testing in Tenses from 6 Classes.

Gender	Mean	N	St. Deviation
Female	89.01	171	9.846
Male	86.40	75	12.535
Total	88.21	246	10.778

Additionally, the information in Table 3 showed the mean score obtained from the mid-test results of Economic Sharia Law students across the two gender groups (246 total students). In comparison, males received a mean core of 86.40, and females received an mean score of 89.01. This showed that on average, females performed much better than males on the mid-test. The standard deviation for women was 9.846, which showed that their scores were generally stable and within a few standard deviations of the mean. The male standard deviation was larger, at 12.535, indicating that male scores were less stable. Between the mean scores for males and females, the overall mean score for all groups was 88.21. As there were more female students as well as a higher mean score from the test, then it impacted the total mean score which could reach 89.01. Overall, it can be said that female students' performance was much better than male students in the mid-test despite the total number of each group of students.

# **Students' Feedback on Online Testing**

Before discussing the findings related to Classtime.com, it is important to note its appearance and features as shown in Figure 2. The image captured from a dashboard with the recap score of the student for each class provided a clear overview of their performance. This feature enabled students to track their progress and identify areas that require improvement. Additionally, the image also showed the appearance of the online test on the Clsstime.com students' screen. Furthermore, Classtime.com's AI-based technology enabled it to provide instant feedback to students, giving them the opportunity to reflect on their mistakes and improve their understanding of the topic.

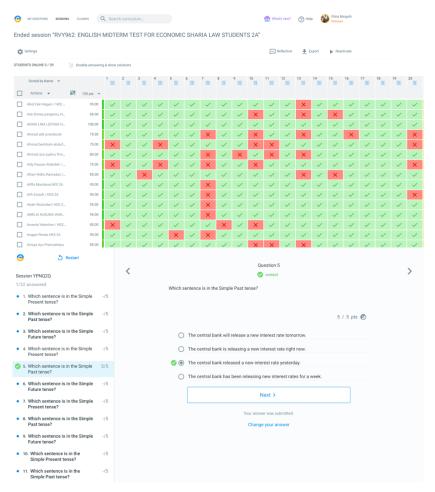


Figure 2. The Classtime.com Website's Appearance for the Online Testing

Furthermore, the quotes provided were from individuals discussing their experiences with online tests and their opinions regarding the benefits and drawbacks of this type of testing using Classtime.com. Thematic analysis was used to analyze the qualitative data from the opinion survey and identify the themes and patterns in the students' feedback on the effectiveness of Classtime.com. This finding provided a detailed understanding of the students' experiences and perceptions which could be seen in Table 4 and Table 5.

Table 4 The Benefit of Using Classtime.com for Online Testing on Students' Feedback

Category	<b>Examples of Quotes</b>
	"Easy to work without writing", "Can be done anywhere", "More time-efficient",
Flexibility	"Time is more flexible", "Can be done when you have free time so you're not in a
	hurry to do it", "Can be done outside the house."
	"Students can see their exam scores immediately," "more simple and fast," "no
Convenience	need to prepare paper, a pen, etc.," "no strain while working on it," "more concise
Convenience	and faster without reducing time," "more efficient because it utilizes technology,"
	and "no wastage of paper."
	"Students can see their correct and incorrect answers immediately", "I think it's
Ease of Use	simpler because it only requires the use of a device", "This exam is easier, as you
Ease of Use	just have to click on the phone screen", "It's easier and more enjoyable to select
	answers", "Selecting exam answers is easier", "It's easier to understand."
	"Doing this exam doesn't feel like taking a test, but rather like playing a game", "It
E	is more exciting and challenging", "It is more interesting", "The questions are
Engagement	different but still cover the same material", "The questions are very exciting", "The
	questions are very fun and easy to learn. It is not boring, and it is fun."
Immediate Feedback	"Students can see their score", "Can see live test scores", "There was an immediate

	answer and it made my heart pound and scared but this system is very interesting", "The value of the answer will immediately appear and if there is a wrong answer, then there is a correct answer below it", "Immediately know the value."		
Accessibility	"Online tests can be taken from anywhere with an internet connection and will be automatically graded." "This exam uses an online system, making it easier for me to take the exam." "It's more attractive because it's easier to access." "We don't need to enter the class and can easily access it." "It's easily accessible."		
Efficiency	"Exams using this system are more practical", "More efficient", "Practice time management in working on questions".		
Enjoyment	"Doing it can be done at a relaxed pace without feeling rushed by friends, allowing for more focus", "This online test is more relaxed and enjoyable", "Very funny", "Personally, there is less risk of grammatical errors and misspellings, making it easier to choose answers."		
Clarity	"I can see the points of right and wrong." "The questions cover different topics but are still related, making it easier for me to distinguish between the three tenses." "Easier to understand."		
<b>Unique Features</b>	"No hassle", "A different and unique look"		

The finding of this study highlighted the students' feedback on the effectiveness of the AI-based online testing of Classtime.com. The feedback was analyzed thematically, and the major categories that emerged were flexibility, convenience, ease of use, engagement, immediate feedback, accessibility, efficiency, enjoyment, clarity, and unique features. In terms of flexibility, students appreciated that the online test could be done anywhere and was time-efficient, allowing them to work without writing. The convenience of the online test was also highlighted, with students appreciating that the test scores were immediately available and there was no need to prepare paper and pen.

Students noted that the online exam platform was simpler to understand and that they could see their right and wrong responses right away, underscoring the ease of use of the system. The online test was also thought to be interesting and pleasant, with some students remarking that it was like playing a game. Additionally, the instant feedback offered by the online test was emphasized, with students noting that they could check their score right away and, if there was a mistake response, the correct answer was displayed underneath it. Students praised the online test's usability and noted that they could take it from any location with an internet connection.

The efficiency of the online test was emphasized, with students noting that it was more practical and allowed them to practice time management in working on questions. The online test was also seen as enjoyable, with students noting that it could be done at a relaxed pace without feeling rushed by friends, allowing for more focus. Finally, students appreciated the clarity of the online test, with some noting that it was easier to distinguish between the different tenses. Some students also appreciated the unique features of the online test, such as the different and unique look and the fact that it was hassle-free.

Table 5 The Drawbacks of Using Classtime.com for Online Testing on Students' Feedback

Category	<b>Example of Quotes</b>
<b>Technical Issues</b>	"My signal is lagging", "There might have been a misclick", "Even if there are network
	problems, the timer is still running", "The settings must be corrected again."
User	"There should be a repetition of the answer if time is still available", "A discussion
User Interface/Experience	should be given when the answer is wrong", "Standard vocabulary that is easy to
	understand should be used", "Pictures are needed to explain the questions clearly."
Exam System	"After submitting, directly move to other questions", "It's best when after submitting, it
Functionality	is shown which answer is correct."
Content	"Prepare for the exam beforehand", "It's an easy matter", "Seriousness is required when
Delivery/Quality	discussing the material", "Maybe we just need to add pictures to make taking this exam

	more interesting", "It's already good, but you can add audio and pictures", "In my		
	opinion, this online exam system is good, but it has a few shortcomings."		
	"Maybe the time could be extended a bit so that I don't lose my focus", "It's better to		
Time Management	use e-learning UIN instead of switching between websites", "I think by adding or		
· ·	displaying the remaining time during the process, I can find out the remaining time."		
Other	"Maybe it can be added with music", "Students should do previous learning so that the		
	exam system runs smoother", "It may be necessary to make improvements from time to		
	time to adjust to the situation and conditions for the examination", "Because I get bored		
	easily, I hope the exam system uses quizzes with only one submit."		

According to students' perceptions, we could see that the online testing system in AIwas generally positively perceived. Many students thought the system of Classtime.com was effective and did not need any major changes. However, several feebacks given by the students needed to be concerned. One of the most critical issues stated by the students was the technology which was quite difficult for them. The students' responses showed that most of them found some signal issue which quite often lagged the this made the mid-test could be finished on time as the instructor set already. For example, one student noted, "My signal is lagging," while another student added, "There is a signal problem." Thus, they suggested the online test of Classtime.com to show the time left while the test is running.

Some students suggested that the exam system of Classtime.com needed to add pictures or animations to make it more engaging. Then some students also thought that the test system should be user-friendly and easy to navigate. They suggested that the system should use standard vocabulary and be easy to understand, especially for Economic Sharia Law terms. While another suggested that the system should provide a warning when someone accidentally pressed the back button on their phone or the online test website of Classtime.com.

Lastly, some students suggested that the online test system of Classtime.com should be more exciting and engaging. Some suggested that the system should include music or cute animations, while others suggested that the system should use quizzes or games to make the questions more engaging as well. For example, one student responded, "With games, I can catch the meaning of the questions more quickly". In summary, the students' feedback showed that the online test system of Classtime.com was generally good, but there were still some areas for improvement. These areas included technical problems, ensuring the system is userfriendly, and making the exam more engaging and exciting.

#### Discussion

In the field of education, technology has helped the development of innovative instruments that can improve learning and evaluation (Albinson et al., 2020). One such instrument is the online assessment platform powered by artificial intelligence (AI) (Galhotra & Lowe, 2022; Reategui & Herrera, 2021; Sánchez-Prieto et al., 2020). This study examined the effectiveness of Classtime.com as an online testing platform for students' academic performance in ESP education, specifically in the teaching of tenses in Economic Sharia Law. In addition, it revealed intriguing distinctions in gender performance. This study also investigated the potential and educational implications of AI-based online assessment. Dealing with education technology, according to Mujtaba & Mahapatra (2020); Zhu (2020), the use of technology in education can provide a more efficient and effective way to assess student learning, as well as improve the quality of instruction. This sentiment is supported by the findings of the current study, which suggest that the AI-based online testing platform was effective in assessing the knowledge of ESP students in Economic Sharia Law.

Additionally, several studies found that there were gender variations in academic achievements, with females frequently performing better than males in several topics and some examinations (Reilly et al., 2019). This is in line with this study which found that the mean score for female students was higher than the mean score for male students in the midtest for testing the tenses in Economic Sharia Law students. Compared to male students' scores, females' scores were more constant, as evidenced by the fact that their standard deviation was also smaller. These findings emphasized the significance of taking gender variations into account when assessing student performance and developing educational initiatives. Overall, the study's findings highlight the need of taking gender differences in academic achievement into consideration and give crucial information on the effectiveness of AI-based online assessment platforms in ESP education.

The results of this study also imply that AI-based online testing platforms can be useful in language education by offering students flexibility, convenience, ease of use, engagement, immediate feedback, accessibility, efficiency, enjoyment, clarity, and special features (Hahn et al., 2021; Isnaini et al., 2021; Jin, 2022; Saienko & Chugai, 2020). However, the student feedback also emphasises the necessity of fixing technological issues, offering clear instructions and explanations, making sure the system is user-friendly, and enhancing the exam's intrigue and excitement.

Furthermore, it is crucial to address the concerns raised by students to ensure the continued success of such platforms in language education. As one student suggested, "There should be a discussion when the answer is wrong," which could be addressed through the inclusion of more detailed explanations for incorrect answers. Additionally, providing warnings when someone accidentally presses the back button on their phone could help prevent accidental loss of progress. In summary, the findings of this study suggest that AIbased online testing platforms can be a valuable tool in language education. However, addressing technical issues, providing clear instructions and explanations, ensuring the system is user-friendly, and making the exam more engaging and exciting are crucial for the continued success and effectiveness of such platforms. As noted by Gayed et al. (2022); Inozemtseva et al. (2022); Sun et al. (2021) education has the potential to significantly improve the quality of learning, and AI-based online testing platforms can be an important part of this technological revolution.

In the context of ESP education, this study investigated the effectiveness of the AIbased online testing platform called Classtime.com for assessing students' command of tenses in Economic Sharia Law. It examined the effect on students' academic performance and highlights gender differences in academic performance. In addition, it discussed the implications of the findings of addressing technical issues and student feedback to improve the platform's efficacy and ensure its successful integration into language education.

#### The Implications of the Findings

The high average scores and comparatively infrequent low scores show how well the online testing platform evaluates students' knowledge. Online assessments can give accurate and valid findings, making them a useful tool for educators to evaluate students' learning outcomes, claim Feenstra et al. (2018). Nevertheless, there is space for improvement in terms of supporting children who performed below average, despite the overall encouraging outcomes. Students who scored below average may need additional attention and direction from teachers to assist them improve their performance, according to Supendi (2020). This is in line with the difference in performances between classes which emphasized how crucial it was to take create such a class level. Admiraal et al. (2020) claimed that class-level data analysis can help teachers in determining the areas in which certain classes require further support and in developing their curriculum to better match the needs of their students.

According to the students' feedback, online testing using Classtime.com provide advantages, including easiness, engagement, immediate feedback, accessibility, effectiveness, enjoyment, and special features. Online testing could become increasingly appealing because of these advantages for both students and teachers. According to Gayed et al. (2022), Jin, (2022), and Sun et al. (2021), online testing can give students a fun, interactive learning experience that can improve their academic performances.

However, some students also believed that there needed some improvements. To ensure that students can effectively navigate and finish the assessment, instructors must make sure that online assessments are user-friendly and offer clear instructions, feedback, and help, as stated by Kiryakova (2021). Overall, the study's results indicate that while online testing platforms are useful for evaluating students' knowledge, there is still space for development in terms of accessibility, clarity, special features, and meeting the needs of students who performed below average. Therefore, it is crucial that educators take these aspects into account while creating and delivering online assessments.

#### **CONCLUSION**

In summary, this study analyzed data from an AI-based online testing platform using Classtime.com for Economic Sharia Law students and explored the students' feedback on the effectiveness of the platform. The findings highlighted that the online test using Clastime.com reached a mean score of 88.21 which then the data also showed that there was a difference in score mean in the students' performance according to the classes and gender. The AI-based online assessment platform's flexibility, ease of use, engagement, immediate feedback, accessibility, effectiveness, efficiency, fun, clarity, and special features were praised by students in their feedback. The study's significance lies in its contribution to the growing field of language education and assessment, particularly in the context of using AI-based online testing platforms. The outcomes showed how these platforms have the potential to be useful instruments for evaluating students' knowledge and proficiency in language teaching. However, there are some limitations of the results which could be influenced by other factors, such as the sample size may not be typical of the full population of Economic Sharia Law students. Additionally, because the study only examined one aspect of language, it cannot be applied to other aspects of language.

These platforms could help teachers classify their students' strengths and weaknesses so they can modify their instruction. The adoption of AI-based online assessment platforms of Classtime.com in other language topics and research into the variables that affect students' performance on these platforms are final recommendations for further research. The longterm impact of using these platforms on students' language learning outcomes and general attitudes toward language education and evaluation can also be investigated in further research.

#### REFERENCES

- Admiraal, W., Vermeulen, J., & Bulterman-Bos, J. (2020). Teaching with learning analytics:how to connect computer-based assessment data with classroom instruction? Technology, Pedagogy and Education, 29(5), 577-591. https://doi.org/10.1080/1475939X.2020.1825992
- Albinson, P., Cetinkaya, D., & Orman, T. (2020). Using Technology to Enhance Assessment and Feedback. Proceedings of the 2020 9th International Conference on Educational and Information Technology, 241–246. https://doi.org/10.1145/3383923.3383940
- Alsharif, D., & Shukri, N. (2018). Exploring Pedagogical Challenges of ESP Teachers at a Saudi Arabian University. International Journal of Asian Social Science, 8(10), 841-855. https://doi.org/10.18488/journal.1.2018.810.841.855
- Azad, S., Chen, B., Fowler, M., West, M., & Zilles, C. (2020). Strategies for Deploying Unreliable AI Graders in High-Transparency High-Stakes Exams (pp. 16-28). https://doi.org/10.1007/978-3-030-52237-7 2

- Chen, X., Xie, H., Zou, D., & Hwang, G.-J. (2020). Application and theory gaps during the rise of Artificial Intelligence in Education. *Computers and Education: Artificial Intelligence*, 1, 100002. https://doi.org/10.1016/j.caeai.2020.100002
- Enesi, M., Vrapi, F., & Trifoni, A. (2021). Challenges of Teaching and Learning English Language for ESP Courses. *Journal of Educational and Social Research*, 11(4), 213. https://doi.org/10.36941/jesr-2021-0090
- Feenstra, H. E. M., Murre, J. M. J., Vermeulen, I. E., Kieffer, J. M., & Schagen, S. B. (2018). Reliability and validity of a self-administered tool for online neuropsychological testing: The Amsterdam Cognition Scan. *Journal of Clinical and Experimental Neuropsychology*, 40(3), 253–273. https://doi.org/10.1080/13803395.2017.1339017
- Fitria, T. N. (2020). Teaching English for Specific Purposes (ESP) to the Students in English Language Teaching (ELT). *JET ADI BUANA*, 5(01), 55–66. https://doi.org/10.36456/jet.v5.n01.2020.2276
- Galhotra, B., & Lowe, D. (2022). AI Based Examination System: A Paradigm Shift in Education Sector. 2022 International Conference on Machine Learning, Big Data, Cloud and Parallel Computing (COM-IT-CON), 386–392. https://doi.org/10.1109/COM-IT-CON54601.2022.9850452
- Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing Assistant's impact on English language learners. *Computers and Education: Artificial Intelligence*, *3*, 100055. https://doi.org/10.1016/j.caeai.2022.100055
- González-Calatayud, V., Prendes-Espinosa, P., & Roig-Vila, R. (2021). Artificial Intelligence for Student Assessment: A Systematic Review. *Applied Sciences*, 11(12), 5467. https://doi.org/10.3390/app11125467
- Hahn, M. G., Navarro, S. M. B., De La Fuente Valentin, L., & Burgos, D. (2021). A Systematic Review of the Effects of Automatic Scoring and Automatic Feedback in Educational Settings. *IEEE Access*, 9, 108190–108198. https://doi.org/10.1109/ACCESS.2021.3100890
- Hidayati, D. (2019). The Analysis of English Requirement for Shariah Economic Students. *JARES (Journal of Academic Research and Sciences)*, 4(2), 32–38. https://doi.org/10.35457/jares.v4i2.840
- Huang, J., Saleh, S., & Liu, Y. (2021). A Review on Artificial Intelligence in Education. *Academic Journal of Interdisciplinary Studies*, 10(3), 206. https://doi.org/10.36941/ajis-2021-0077
- Inozemtseva, K. M., Morozova, E. V., & Kolesnikov, I. M. (2022). Assessment of ESP students' learning outcomes in a digital learning environment. *RUDN Journal of Informatization in Education*, 19(4), 300–311. https://doi.org/10.22363/2312-8631-2022-19-4-300-311
- Isnaini, I., Sunimaryanti, S., & Andre, L. (2021). Assessment Principles and Practices Quality Assessments in A Digital Age. *SPEKTRUM: Jurnal Pendidikan Luar Sekolah (PLS)*, 9(2), 287. https://doi.org/10.24036/spektrumpls.v9i2.112711
- Jin, L. (2022). Design of English Writing Assessment System Based on AI Technology in food and agriculture sectors. *Journal of Commercial Biotechnology*, 25(4). https://doi.org/10.5912/jcb1252
- Kakoulli Constantinou, E., & Papadima-Sophocleous, S. (2020). The Use of Digital Technology in ESP: Current Practices and Suggestions For ESP Teacher Education. *Journal of Teaching English for Specific and Academic Purposes*, 017. https://doi.org/10.22190/JTESAP2001017K

- Kester, E. S. (2022). Online Language Assessment of School-Age Students. Topics in Disorders, 127–139. Language *42*(2), https://doi.org/10.1097/TLD.0000000000000281
- Kiryakova, G. (2021). E-assessment-beyond the traditional assessment in digital environment. IOP Conference Series: Materials Science and Engineering, 1031(1), 012063. https://doi.org/10.1088/1757-899X/1031/1/012063
- Langenfeld, T. (2020). Internet-Based Proctored Assessment: Security and Fairness Issues. Educational Practice, Measurement: Issues and *39*(3), 24–27. https://doi.org/10.1111/emip.12359
- Liang, L., Tognolini, J., Hendry, G., & Mantai, L. (2022, June 14). A review of tertiary formative assessment using digital technology in the past decade: what has been facilitated? 8th International Conference on Higher Education Advances (HEAd'22). https://doi.org/10.4995/HEAd22.2022.14371
- Mahamatismoyilovna, S. R. (2022). Innovation teaching technology in ESP groups by activities. International Journal Health of Sciences, 3497–3502. https://doi.org/10.53730/ijhs.v6nS5.9400
- Mujtaba, D. F., & Mahapatra, N. R. (2020). Artificial Intelligence in Computerized Adaptive Testing. 2020 International Conference on Computational Science and Computational Intelligence (CSCI), 649–654. https://doi.org/10.1109/CSCI51800.2020.00116
- Nardi, A., & Ranieri, M. (2019). Comparing paper-based and electronic multiple-choice examinations with personal devices: Impact on students' performance, self-efficacy and satisfaction. British Journal of Educational Technology, 50(3), 1495-1506. https://doi.org/10.1111/bjet.12644
- Okada, A., Noguera, I., Alexieva, L., Rozeva, A., Kocdar, S., Brouns, F., Ladonlahti, T., Whitelock, D., & Guerrero-Roldán, A. (2019). Pedagogical approaches for e-assessment with authentication and authorship verification in Higher Education. Educational Technology, British Journal 50(6), 3264-3282. https://doi.org/10.1111/bjet.12733
- Preslavsky, K. (2020). Intelligent Methods for Objective Assessment of Learners in Online
- Reategui, J. L., & Herrera, P. C. (2021). Artificial Intelligence in the Assessment Process of MOOCs using a cloud-computing ecosystem. 2021 IEEE International Conference on Engineering. Technology Education (TALE), 487-493. https://doi.org/10.1109/TALE52509.2021.9678911
- Reilly, D., Neumann, D. L., & Andrews, G. (2019). Gender differences in reading and writing achievement: Evidence from the National Assessment of Educational Progress (NAEP). 445–458. American Psychologist, 74(4), https://doi.org/10.1037/amp0000356
- Saienko, N., & Chugai, O. (2020). Quarantine: Teaching English From Home with Google Classroom, Classtime and Quizlet. Romanian Journal for Multidimensional Education/Revista Romaneasca Pentru Educatie Multidimensionala, 12.
- Sánchez-Prieto, J. C., Cruz-Benito, J., Therón, R., & García-Peñalvo, F. (2020). Assessed by Machines: Development of a TAM-Based Tool to Measure AI-based Assessment Acceptance Among Students. International Journal of Interactive Multimedia and Artificial Intelligence, 6(4), 80. https://doi.org/10.9781/ijimai.2020.11.009

- Sillat, L. H., Tammets, K., & Laanpere, M. (2021). Digital Competence Assessment Methods in Higher Education: A Systematic Literature Review. Education Sciences, 11(8), 402. https://doi.org/10.3390/educsci11080402
- Sun, Z., Anbarasan, M., & Praveen Kumar, D. (2021). Design of online intelligent English teaching platform based on artificial intelligence techniques. Computational Intelligence, 37(3), 1166–1180. https://doi.org/10.1111/coin.12351
- Supendi, R. P. (2020). Analysis of underachieving students' problems and the given guidance. *ProGCouns: Journal of Professionals in Guidance and Counseling*, 1(1). https://doi.org/10.21831/progcouns.v1i1.31535
- Tran, T. P., Sidhu, L., & Tran, D. (2021). A Framework for Navigating and Enhancing the Use of Digital Assessment. 2021 5th International Conference on E-Society, E-Education and E-Technology, 1–6. https://doi.org/10.1145/3485768.3485803
- Vieira Vasconcelos, S., Balula, A., Burkšaitienė, N., & Stojkovic, N. (2021). V-interESP -Utilização de Vídeos para Melhorar a Experiência de Aprendizagem dos Estudantes ESP: Ensino e Investigação Conjunta Internacional. Revista de Lenguas Para Fines Específicos, 27.1, 74–96. https://doi.org/10.20420/rlfe.2021.389
- Xu, J., Jones, E., Laxton, V., & Galaczi, E. (2021). Assessing L2 English speaking using automated scoring technology: examining automarker reliability. Assessment in Education: Principles, Practice. 28(4), Policv & 411–436. https://doi.org/10.1080/0969594X.2021.1979467
- Xu, W., Meng, J., Raja, S. K. S., Priya, M. P., & Kiruthiga Devi, M. (2023). Artificial intelligence in constructing personalized and accurate feedback systems for students. International Journal of Modeling, Simulation, and Scientific Computing, 14(01). https://doi.org/10.1142/S1793962323410015
- Zhu, A. (2020). Application of AI Identification Technology in Foreign Language Education. 2020 International Conference on Artificial Intelligence and Education (ICAIE), 71-75. https://doi.org/10.1109/ICAIE50891.2020.00024