

THE IMPACT ANALYSIS OF SECURE ONLINE SAFE EXAM BROWSER (SEB) IMPLEMENTATION IN ENGLISH SEMESTER EXAMINATIONS

Yossy Fadly^{1*}, Dedi Purwanto², Ranti Eka Putri³, Nahda Aulia Ade Pratiwi⁴
Universitas Pembangunan Panca Budi

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***Correspondence Address:**

yossyfadly@dosen.pancabudi.ac.id

Abstract: This study investigates the impact of implementing the Secure Online Safe Exam Browser (SEB) in English semester examinations for undergraduate students in the Accounting program at Universitas Pembangunan Panca Budi (UNPAB). The research aims to assess how SEB influences students' perceptions of ease of use, performance, expectations, and social impacts in the context of English language learning. A purposive sampling technique was employed, targeting active students from the 2021, 2022, and 2023 cohorts who utilized SEB during their English courses. Data were collected through a structured questionnaire with Likert-scale items measuring various independent variables and the dependent variable of semester examination performance. The findings are expected to provide insights into the effectiveness of SEB as a supportive tool for enhancing English language assessment, ultimately contributing to improved academic outcomes in the Accounting program. This study highlights the significance of technology integration in educational assessment and its potential to facilitate better learning experiences for students.

INTRODUCTION

The development of information technology (IT) has influenced many aspects of life, including education. Thanks to IT, learning methods have shifted from face-to-face to digital platforms, such as E-learning at Universitas Pembangunan Panca Budi (UNPAB), which features the Safe Exam Browser (SEB) to ensure the security and integrity of online exams.

SEB is software that prevents cheating during online exams by restricting access to other programs and websites. Research has shown that SEB is effective in creating a secure and controlled exam environment, preventing unauthorized resource use. Several studies, including those by Sogaard and Truszkowski, examined the potential for cheating in BYOD exams and the comparison between proctored and unproctored exams. Other research has found that proctoring applications like SEB are an effective solution for online exams during the COVID-19 pandemic. This study is conducted among

Accounting students at UNPAB to assess the impact of SEB use in online exams.

LITERATURE REVIEW

Online learning refers to the learning process conducted electronically through computers and networks. Other terms used for this concept include e-learning, virtual learning, web-based learning, and more. According to The University of Edinburgh (2017), online learning allows students to participate without being physically present in a classroom. Hartley (2001) describes e-learning as the delivery of lessons via the internet or intranet. Thus, online learning can be defined as a learning approach relying on electronic media, especially the internet.

Several universities have adopted online learning, allowing students to participate in classes remotely. For instance, Binus University has implemented an online learning system called Binusmaya, providing features like virtual classrooms and group discussion spaces. Similarly, Trisakti University uses its online platform, Trisakti Electronic Learning (TELL), which blends 70% online learning and 30% face-to-face interaction.

Internationally, institutions like the University of Birmingham and University of Georgia use platforms such as WebCT to facilitate online learning. This tool offers various features like email communication, discussion forums, and a presentation platform for students. Research shows that WebCT enhances the learning and assessment process while simplifying communication.

The Safe Exam Browser (SEB) is a web browser designed to ensure secure online exams by restricting access to unauthorized resources. It integrates with Learning Management Systems (LMS) like Moodle and ILIAS, controlling access during exams and preventing cheating. SEB operates by locking the system and controlling access to websites and applications.

Lastly, in English learning at Panca Budi University, accounting students follow a structured curriculum with courses requiring both theory and practical exercises. SEB is not yet utilized in exams at the university but offers the potential to secure assessments in the future.

In terms of technology acceptance, the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), and Unified Theory of Acceptance and Use of Technology (UTAUT) provide frameworks for understanding how individuals adopt new

technologies. These models highlight factors like perceived usefulness, ease of use, and social influence in determining user acceptance of technology.

RESEARCH METHODS

This study examines the role of the Secure Online Safe Exam Browser in supporting English language learning among undergraduate students in the Accounting program at Universitas Pembangunan Panca Budi. The population of the study consists of active students from the 2021, 2022, and 2023 cohorts who utilized the Safe Exam Browser during their English courses.

Research Variables are Independent Variables consist of: 1) Students' perceptions of the ease of using the Safe Exam Browser. 2) The performance of the Safe Exam Browser. 3) Expectations regarding the use of the Safe Exam Browser. 4) Social impact of using the Safe Exam Browser. Then, Dependent Variable consist of Semester examinations in English language learning.

Data were collected using a questionnaire distributed both in-person and electronically. A Likert scale was employed to measure respondents' answers. Then, the analysis includes validity and reliability testing of the questionnaire, classical assumption tests (normality, multicollinearity, and heteroscedasticity), multiple linear regression analysis, and hypothesis testing using SPSS. The regression model aims to understand the relationship between students' perceptions, performance, expectations, and social impact on semester examination results.

RESULTS AND DISCUSSION

Students' Views on the Ease of Using Safe Exam Browser Have a Positive Impact on Supporting English Language Semester Exams, shows the t-statistic value obtained is 1.181. For the t-table at a significance level of 0.05 and degrees of freedom (DF) calculated as $DF = N - 2$, or $312 = 314 - 2$, the result is 1.968. This indicates that the t-table value is greater than the t-statistic, which means that students' views on the ease of using Safe Exam Browser do not have a significant impact on supporting English language semester exams. Thus, the first hypothesis stating "Students' views on the ease of using Safe Exam Browser have a positive impact on supporting English language semester exams" is not supported by the data. This could be because students are not yet

accustomed to using the Safe Exam Browser. Additionally, it may be due to the facilities provided by Safe Exam Browser not being able to adequately accommodate online exam completion. This is because not all students are capable of installing Safe Exam Browser on their devices, as not all possess the same level of information technology skills compared to students from information systems programs. The installation mechanism of Safe Exam Browser is relatively complicated and requires technical guidance to ensure that students can easily understand it. Furthermore, the presence of Safe Exam Browser is not well received by students because it is an online exam system that locks the browser to prevent students from accessing any means of cheating by leaving the browser to search for answers during the online exam.

The Performance of Safe Exam Browser Has a Positive Impact on Supporting English Language Semester Exams, shows the t-statistic value obtained is 10.361. For the t-table, the result is 1.968. This indicates that the t-table value is smaller than the t-statistic, meaning that the performance of Safe Exam Browser has a significant impact on supporting English language semester exams. Thus, the second hypothesis stating "The performance of Safe Exam Browser has a positive impact on supporting English language semester exams" is supported by the data. This result is consistent with research conducted by Madigan et al. (2017), which states that the performance of the ARTS vehicle significantly influences its users to utilize the system, as the ARTS vehicle facilitates users in obtaining transportation effectively and efficiently to their desired destinations. In this study, it can be stated that the performance of Safe Exam Browser supports English language semester exams because it allows students to save time and eliminates the need to travel to an exam location. Additionally, students can quickly obtain announcements from instructors in real-time, making the process more effective and efficient.

Expectations Regarding the Use of Safe Exam Browser Have a Positive Impact on Supporting English Language Semester Exams, shows the t-statistic value obtained is -1.223. For the t-table, the result is 1.968. This indicates that the t-table value is greater than the t-statistic, meaning that students' expectations regarding the use of Safe Exam Browser do not have a significant impact on supporting English language semester exams. Thus, the third hypothesis stating "Expectations regarding the use of Safe Exam Browser have a positive impact on supporting English language semester exams" is not supported

by the data. This aligns with research conducted by Madigan et al. (2017), which indicates that expectations regarding the use of the ARTS Vehicle do not significantly impact its adoption. This could be because using the ARTS Vehicle system does not differ significantly from using public transportation in general. In this study, it can be stated that students' expectations regarding the use of Safe Exam Browser do not influence their performance in English language semester exams, possibly due to the user interface of Safe Exam Browser itself. Although students expect the interface of Safe Exam Browser to be clear and easy to understand, in reality, it is quite complicated, causing confusion during use. Furthermore, students must install the application on their devices before starting the online exam, which adds to their confusion even before the exam begins.

Social Impact on the Use of Safe Exam Browser Has a Positive Impact on Supporting English Language Semester Exams, shows the t-statistic value obtained is 6.119. For the t-table, the result is 1.968. This indicates that the t-table value is smaller than the t-statistic, meaning that the social impact on the use of Safe Exam Browser has a significant effect on supporting English language semester exams. Thus, the fourth hypothesis stating "The social impact on the use of Safe Exam Browser has a positive impact on supporting English language semester exams" is supported by the data. This is in line with research conducted by Trybou (2017) regarding the social influences that affect the acceptance of non-fluoroscopy-guided positioning for radiographers. The results indicate that the social influences of relatives, radiologists, supervisors, and the working department significantly impact the use of non-fluoroscopy-guided positioning among radiographers. In this study, it can be concluded that social influences affect students' use of Safe Exam Browser. These social influences come from instructors, teaching assistants, peers, and the campus environment, which support the use of this system. When instructors use Safe Exam Browser, students are also likely to use it, as it helps ensure a fair exam process that allows for an honest assessment without cheating.

Table 1. Hypothesis Testing Results

Hypothesis	Description
H1: Students' views on the ease of using Safe Exam Browser have a positive impact on supporting English language semester exams	Not supported by the data
H2: The performance of Safe Exam Browser has a positive impact on supporting English language semester exams	Supported by the data
H3: Expectations regarding the use of Safe Exam Browser have a positive impact on supporting English language	Not supported by the data

semester exams	
H4: The social impact on the use of Safe Exam Browser has a positive impact on supporting English language semester exams	Supported by the data

CONCLUSION

In this study, four hypotheses were tested, of which two hypotheses were supported by the data while two were not. Based on the data analysis results, the following conclusions can be drawn: 1) Students' views on the ease of using Safe Exam Browser do not have a positive impact on supporting English language semester exams. 2) The performance of Safe Exam Browser has a positive impact on supporting English language semester exams. 3) Students' expectations regarding the use of Safe Exam Browser do not have a positive impact on supporting English language semester exams. 4) The social impact on the use of Safe Exam Browser has a positive impact on supporting English language semester exams.

The following suggestions are provided for future research: 1) Future studies could involve the same subject but cover a broader scope, not limited to just one university, so that the conclusions can be generalized to all Accounting students in Indonesia. 2) Future research could delve deeper into faculty responses regarding the use of Safe Exam Browser for conducting online exams that ensure security against dishonest practices in obtaining grades.

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