

OVERVIEW OF THE IMPLEMENTATION OF AUTOMATED ONLINE EXAM PROCTORING FOR POLYTECHNIC MERCHANT MARINE CADETS

**Fitri Masito¹, Nining Idyaningsih², Parjan³,
Ahmad Rosydi⁴, Jose Beno⁵, Robiatul Adawiyah⁶**

^{1,2,3}Politeknik Penerbangan Palembang, ⁴Politeknik Penerbangan Makassar,
^{5,6}Politeknik Pelayaran Sumatera Barat

Correspondence : fitri.masito@poltekbangplg.ac.id

ABSTRACT

This research was conducted to see an overview of the implementation of the online exam using the Autoproctor supervision system at the cadets of the West Sumatera Polytechnic of Merchant Marine. In the early stages, researchers will see the introduction of online exams, the effectiveness of online exams, the liking of online exams, the readiness of cadets to carry out online exams, as well as the introduction of the Autoproctor application. The type of research used in this study is need analysis using a likert scale. This study aims to see how familiar, ready, effective, and favorite cadets are for online exams, which have been carried out at the Sailing Polytechnic as well as the introduction of the Autoproctor application to cadets. The results of this study are expected to be a reference in developing the Autoproctor application in supervising online exams conducted.

The results of the study for the introduction variable of online exams found that 70.9% of respondents had been introduced to online exams. For the variable liking for the implementation of the online exam, 62.2% of respondents expressed liking for the implementation of the online exam. For the variable of having taken an online exam it was found that 66.9% of respondents had taken the exam online. For the effectiveness of online exams, 59.9% of respondents stated that online exams are effective. For the introduction of the Autoproctor application, 72.7% of respondents have never known the Autoproctor application.

Keywords: Autoproctor, Effectiveness, Online Exam, Cadet

INTRODUCTION

Currently, Information Technology is developing and spreading in almost every aspect of life, even the world of education has not escaped its touch. In this digitalization era, the online examination system is part of the distance and close education information system through the media of internet electronic technology or e-learning. Information technology media is closely related to database systems as a medium for data input and storage in accordance with the needs of its users.

At this time, students and lecturers are faced with a bad situation. This is due to the COVID-19 pandemic situation that has spread throughout the world, so that face-to-face learning is eliminated. In addition, along with the development of the digitalization era, the world of education, which usually takes place face-to-face, must be able to adjust to online lectures. These two conditions make educational institutions, policymakers, and other related sectors find an effective way, namely by implementing online exam learning. Online learning requires lecturers to be able to deliver material that can be accepted by their students. Not only lecturers, students are also required to play an active role in this online learning.

Online learning is new for most lecturers and students. The problem faced by lecturers during online learning is the obstacle when evaluating learning. The majority of lecturers are currently still fixated on using Google Classroom or the Zoom application as an integrated learning system (learning management system). All learning interactions carried out by lecturers and students are based on Google, including when conducting analysis will be carried out to see an overview of each variable to answer research questions. The expected final result of this

evaluations such as daily exams, midterm exams, and final semester exams. The obstacle faced by the lecturers when conducting the evaluation is that the students are not supervised when conducting the exam.

There are applications that can help lecturers in conducting remote supervision when carrying out language learning evaluations. The application is an autoproctor application that can be added to the google form. In addition to functioning as a remote proctor, the application also functions as an exam timer and has the same function as the proctorio that has been used by the West Sumatera Polytechnic of Merchant Marine.

The use of the autoproctor application is a good thing for lecturers and can be optimized because the majority of lecturers currently still use google forms for exams and evaluations of a lesson. The timer and remote supervision features by utilizing cameras and microphones found on the devices or laptops of students who conduct exams are considered to be enough to help lecturers to supervise as if they were conducting exams directly. The use of the autoproctor application, in addition to helping lecturers, is also very suitable to be used as a tool for evaluating all exams held during the COVID-19 pandemic and of course to follow the existing digitalization era.

This preliminary data is to find out the extent to which students are familiar with online exams, how fond students are of the implementation of online exams, whether they have taken online exams, how effective online exams are, and how familiar cadets of the West Sumatra Sailing Polytechnic are familiar with the Autoproctor exam supervision system. Furthermore, an study is the introduction and application of an online exam proctoring system using the Autoproctor application in order to supervise

cadets of the West Sumatera Polytechnic of Merchant Marine in online exams.

LITERATURE REVIEW

Online Exams are one way to provide an assessment of students in the learning process. In its implementation, the exam is aimed at assessing the level of achievement of students or students, so that the level of ability of a student to understand the subjects taken can be known. Based on the method of workmanship, the exam can be distinguished from conventional exams and online exams. Conventional exams are exams that are conducted directly opposite the examiner and use stationery as an exam device such as pens, papers, pencils and other stationery. While the online exam is an exam that uses utilizing internet technology facilities where examinees can answer questions without meeting face to face with the examiner and checking the answers is carried out by the system and get scores directly (Agustino Heriadi 2013).

However, online exams have several shortcomings, one of which is the weak supervision of the implementation of the exam. This is considered important because the essence of conducting the exam is to measure how far the student's ability to understand a lesson is. In exams, honesty is an important thing, but not all students can be honest in carrying out the exams conducted. Therefore, a solution was created to overcome the problems that occur in the implementation of online exams, namely by creating an automatic supervision system to prevent fraud in the implementation of online

METHODS

The research was conducted at the West Sumatera Polytechnic of Merchant Marine with descriptive quantitative research types and survey research designs. The respondents in this study were cadets of the West Sumatra

exams. The AutoProctor system or application is an application that can prevent fraud in the implementation of online exams. In addition, AutoProctor can also set the time for the online exam so that the exam can end automatically according to the time that has been made.

AutoProctor is an automated surveillance solution for *online* tests. When a user performs a test, *AutoProctor* monitors the environment and user actions in real-time to determine malpractice. This can be conveyed to the test taker to prevent further events from occurring. *AutoProctor* can also record evidence of these incidents so owners can review them later.

AutoProctor uses various methods for this. *AutoProctor* takes as input the user's audio and video feed, whether the user switches from testing to a different tab/application or other. At the end of the test, the AI engine will calculate a trust score based on all the evidence collected. This trust score takes into account the frequency and duration of these violations. The AI engine uses data from many previous test takers to distinguish between actual malpractice and test takers that accidentally trigger a violation.

In addition to surveillance, *AutoProctor* also has a *Timer* feature. The account owner can set the duration of the test, after which the user cannot submit an answer again. You can also set a start time, before the test is inaccessible. Similarly, the owner can set an end time, after which the test is inaccessible

Pelayaran Polytechnic, totaling 219 respondents. The sampling technique in this study is total sampling. The number of respondents who were willing to be sampled amounted to 172 respondents. This study used primary data sources collected through questionnaires in google form with a total of

16 questions and categorization of questions using a likert scale. Variables observed include the introduction of online exam applications, students' liking for online exams, having taken online exams, the effectiveness of online exams, and the introduction of the Autoproctor system . The collected data is then processed and analyzed univariately using the SPSS series 24 application to explain the distribution and frequency of each variable.

Ineffective	69	40,1
Effective	103	59,9
Introduction to Autoproctor		
Never	125	72,7
Never Before	47	27,3

RESULTS AND DISCUSSION

Tabel 1. Variable frequency distribution

Variable	Sum	(%)
Introduction to the Online Exam App		
Not Yet Introduced	50	29,1
Already Introduced	122	70,9
Fondness for Online Exams		
Dislike	65	37,8
Like	107	62,2
Never Take an Online Exam		
Never	57	33,1
Never Before	115	66,9
Effectiveness of Online Exams		

From the data above, it is known that the number of respondents is 172 respondents. For the variable application for the online exam, it is known that 70.9% (122 respondents) have been introduced to the online exam application, while 29.1% (50 respondents) have never been introduced to the online exam. For the liking variable for the online exam, it was found that 62.2% (107 respondents) expressed liking for the online exam, while 37.8% (65 respondents) said they did not like the online exam. For the variable of having taken an online exam, it was found that 66.9% (115 respondents) had taken an online exam, while 33.1% (57 respondents) had never taken an online exam. For the effectiveness of online exams, 59.9% (103 respondents) stated that online exams were effective, while 40.1% (69 respondents) stated that online exams were ineffective. For the introduction of the autoproctor system, it is known that 72.7% (125 respondents) have never known the autoproctor application, while 27.3% (47 respondents) have known the autoproctor application.

CONCLUSION

From the data and results above, it can be concluded as follows:

1. 70.9% of respondents have been introduced to online exams.
2. 62.2% of respondents said they liked the implementation of online exams.

3. 66.9% of respondents have taken an online exam.
4. 59.9% of respondents stated that online exams are effective.
5. 72.7% of respondents stated that they had never known the autoproctor application.

From the conclusions above, the researcher gave several suggestions, namely:

1. Socialization and introduction to the use of the online exam proctoring system can

- be carried out using the autoproctor application.
2. It can be tested before the implementation of the online exam using the A utoproctor application so that cadets better understand how to use it during the online exam.
 3. Further research can be carried out to develop the shortcomings in the Autoproctor system so that it becomes a perfect system in supervising the entire online exam process in Indonesia or in the world.
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