



HOW EASY TO MAKE AN ONLINE EVALUATION

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ARTICLE INFO

o-ISSN: 2528-2026
p-ISSN: 2528-2468
Vol. 7, No. 1, June 2022
URL: <http://doi.org/10.31327/jme.v7i1.1763>

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Abstract

The purpose of this study is to explain the procedure for making online questions using the jeruq.com website and describe the advantages and disadvantages of the question maker website. This research is a qualitative descriptive study. The instruments used in collecting data were exam questions made using the jeruq.com website, interview guidelines, and most importantly the researchers themselves. Based on the results of trials and interviews conducted, several results were obtained including: (1) The fraud detector in the system has not functioned optimally, especially if the exam uses a smartphone. (2) In order for the conclusions in the item analysis to be more precise, the number of answer items in each item must be the same as the number in the system. The final conclusion obtained is that this website is very helpful for teachers or lecturers who want to make online exam questions quickly.

Keywords: *Online evaluation, web-based evaluation*

A. Introduction

Currently, almost all levels of education, from Kindergarten to tertiary institutions, have started to carry out the face-to-face teaching and learning process (TLP) in schools. However, the teaching and learning process carried out still adheres to the Health protocol. In addition, TLP carried out in schools is still limited in terms of the number of students who enter the class and the time spent in TLP.

Several researchers revealed that the online teaching and learning process carried out during the pandemic had an unfavorable effect on understanding the material being taught. The subject matter or teaching materials delivered online are difficult to understand (Firman & Rahman, 2020) so many students prefer to study face-to-face rather than study online (Kusnayati et al., 2020; Ronitua Gultom & Sitanggang, 2020). According to them, the material taught face-to-face is more acceptable than online learning (Dzalila et al., 2020). Moreover, online learning does have many obstacles, both internal and external (Kartika et al., 2021)

In addition to the unfavorable effect, the adaptation of online PBM that was carried out during the covid period also left a good effect on teachers/lecturers as well as on students/students. Digital learning footprints provide many benefits to all learners. With the implementation of online learning during the pandemic, various kinds of LMS (Learning Management Systems) are starting to be recognized and used by teachers in the teaching and learning process. In addition, there are many transformations of teaching materials from textbooks to learning videos. Because face-to-face TLP is still limited, LMS and teaching materials created during the pandemic can still be used to help meet the teaching needs of students. Materials can be given through online channels and when face-to-face is limited, they can discuss or discuss material that has not been understood. This kind of learning is known as Blended Learning (Bouilheres et al., 2020; Castro, 2019; Kaur, 2013)

The teaching and learning process is certainly not complete without an evaluation process. The evaluation process is carried out to measure the extent to which students understand the teaching material that has been given. As TLP can be combined between online and offline, of course, evaluation is the same. Moreover, the online evaluation process is very helpful for teachers and lecturers in accelerating the process of examining questions so that they can be more time-efficient. A good LMS must have been equipped with evaluation facilities. Some examples of LMS equipped with evaluation tools are Schoology and Moodle (Romero et al., 2021). However, we can create an online evaluation tool without having to create or join a particular LMS.

There are many applications that can be used to create online evaluation tools. Some of them that are familiar are Wondershare Quiz Creator and Ispring Suite (Nasrum, 2020; Subawo & Nasrum, 2021). There are also game-based quiz maker apps such as quiziz and Kahoot (Martín-Sómer et al., 2021; Orhan Göksün & Gürsoy, 2019). Wondershare is starting to be abandoned at this time because the products produced are starting to be difficult to get online. Unlike Wondershare, the products produced by Ispring Suite in the form of HTML5 files are easier to online. Ispring Suite is also currently undergoing updates. However, there is some software whose initial design is already web-based. Making questions does require an internet connection. So, once the questions are finished, there is no need for a process to make the questions online because automatically the questions are already online. One example is Google Forms (Hariono et al., 2021).

Some of the software mentioned earlier have been widely used by academics, both teachers, lecturers, and researchers. As LMS develops during the pandemic, it turns out that there are also Website Developers who are trying to develop a platform for making online questions. One example is <https://www.jeruq.com/> (Rahman & Priatna, 2021). This website offers to anyone who wants to make online questions easily. Equipped with item analysis such as the level of difficulty and discriminating power that cannot be found in some other question-making software. The most unique thing is that in this system there is a fraud detection facility. In addition, because the name has absolutely nothing to do with evaluation in the world of education, this website has not been widely known by teachers and lecturers. Through this paper, we will try to introduce to all those who are interested in developing online questions, describe the procedures for making online questions using this website, and discuss some of the advantages and disadvantages. Hopefully, this article can provide input to website developers so that this website can be better.

B. Methodology

In certain cases, this research can be viewed as development research, but specifically, we will describe the procedure for making online questions using the jeruq.com website, discussing the advantages and disadvantages so that this type of research is qualitative descriptive research. To find out more about the features, functions, advantages, and disadvantages of this website, it takes several test subjects. In this study, we took fifth-semester students in the mathematics education study program at the University of Sembilanbelas November Kolaka as research subjects.

The data collection instrument was in the form of Final Test questions for the Numerical method course which were made using the jeruq.com website and interview guidelines. The stages of carrying out the research are as follows: (1) Creating questions using the jeruq.com website; (2) Entering student data into class; (3) Trial of working on exam questions; (4) Interview Process; (5) Data Triangulation; (2) Analysis of advantages and disadvantages.

C. Findings and Discussion

A. How to make online questions using the jeruq.com website?

The process of making questions using the jeruq.com website is very easy. The procedure for making it will be briefly explained as follows.

1. Register on the jeruq.com website
Please visit the website <https://www.jeruq.com/>. Register and create an account using your email. If you don't have an email, please create one first.
2. Prepare questions
Please make multiple choice or true and false questions that will be online. Can be typed in Microsoft Word, Powerpoint, or in pdf form, please choose. If the questions are available, screenshot each item complete with the answer choices then save it in a specific folder on your computer. It is better if the name of the problem file matches the question number to make it easier to organize it.
3. Save the picture of the question online
To save images online, you can use various methods, but in this research, we use the website <https://postimages.org/>. Upload all the questions that have been saved in the previous step to the website <https://postimages.org/>. Select the direct link so that it looks like the following image.

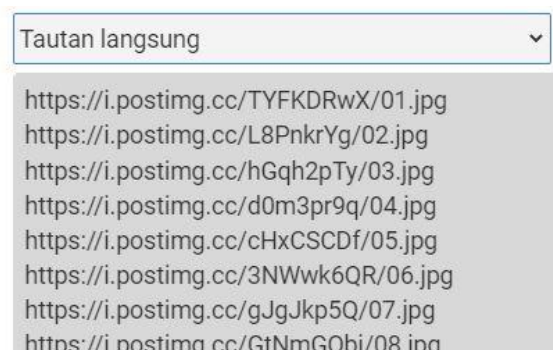


Figure 1. The question link has been uploaded.

4. Create Online Questions with a Jeruq account
Please login to <https://www.jeruq.com/>. Highlight your profile icon in the menu bar at the top right, select Manage classes, then click the add questions menu. Please follow the process until a page appears asking for a question image link. Copy the question link in the previous step and paste it into the space provided.

What are the advantages of the jeruq.com website in making online questions?

There are several advantages of the jeruq.com website in terms of manufacture, workmanship, and test results given. In terms of making questions, it is very easy as described previously. In terms of working on questions, a button is provided to move to another easier question. In addition, we can mark the answers to questions that are still considered doubtful so that the answers can be revised. This facility does not exist on several other online question-making devices such as WQC, Ispring, Kahoot, quiziz, and google forms.

Furthermore, in terms of examining questions, this website provides facilities for exporting exam results in excel form so that they do not need to be recapitulated one by one. Facilities like this are also available on the google form but the information provided is not as complete as the output from the jeruq.com web. The most interesting thing is that web jeruq.com provides spying facilities to spy on students who are trying to cheat. Online exam fraud can occur if participants try to find answers from the internet or try to share answers from their friends through social media such as WhatsApp. During the exam, they can't share answers or search for answers if they don't minimize the question page and open a new tab. The advantage of the jeruq.com website is that it can detect possible fraud if participants open a new tab as shown in the picture. All the results are stored in a report so that they can be analyzed one by one.



Figure 2. Information on the number of switching tabs as a report from the application.

In addition to detecting fraud, there is a facility that is no less interesting, namely item analysis. This website has provided facilities for item analysis purposes such as question validity, question reliability, discriminating power level, measuring the difficulty level of the questions and analyzing the distractor function for each answer item. With this facility, we can collect good questions according to the character of the students we will be testing. A good question is a question that is valid, reliable, has distinguishing power, level of difficulty and a good distractor function.

D. TINGKAT KESUKARAN

Nomor Soal	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Indeks Kesukaran	0.5	0.6	0.7	0.3	0.4	0.4	0.3	0.3	0.3	0.5	0.3	0.4	0.5	0.4	0.4	0.1
Klasifikasi	sedang	sedang	mudah	sedang	sedang	sedang	sedang	sedang	sedang	sedang	sedang	sedang	sedang	sedang	sedang	sukar

Figure 3. Analysis of Item Difficulty Level by application.

What are the shortcomings of the jeruq.com website in terms of making and working on online questions?

Of the many advantages that this online question maker tool has, it also has a number of disadvantages which will be discussed one by one.

1. The initial appearance of the question is not interesting

The initial appearance of the question is quite confusing because it is almost covered by advertisements, whether it is opened on a laptop or opened on a smartphone. To display the question in its entirety, the ad must be closed and then stopped so that the ad no longer appears on the screen while working on the question. This must be conveyed to the examinee the first time using this application.



Figure 4. Display of questions covered with ads.

2. The number of answer choices on the website has been determined and cannot be changed. There are 5 answer choices provided, namely A, B, C, D, and E. However, that does not mean that a question cannot be made if it only has 4 answer choices. Still can. It's just that in item analysis, consider a distractor function to conclude that an item is accepted or rejected. If only 4 answer choices are given, then the fifth choice by the system is considered a distractor and it is automatically concluded that the distractor function does not work because it was never chosen by the examinee. Thus, if you want to make online questions using this website, you should adjust the number of answer choices according to those in the system.

3. Fraud detection

Based on the results of this study, cheating detectors cannot be relied upon if the exam uses a smartphone. There are several cases encountered while conducting research, namely as follows:

- 3.1 In the implementation of the exam, which consisted of 27 people, 4 students were taken who were given special treatment, namely IU, DA, SY, and MI. The four of them were given different treatments. IU is allowed to open/switch tabs and open other applications, by pressing the recent app button on the smartphone. In practice, I was allowed to open google, open WhatsApp, and open Calculator but after the exam ended nothing was detected.

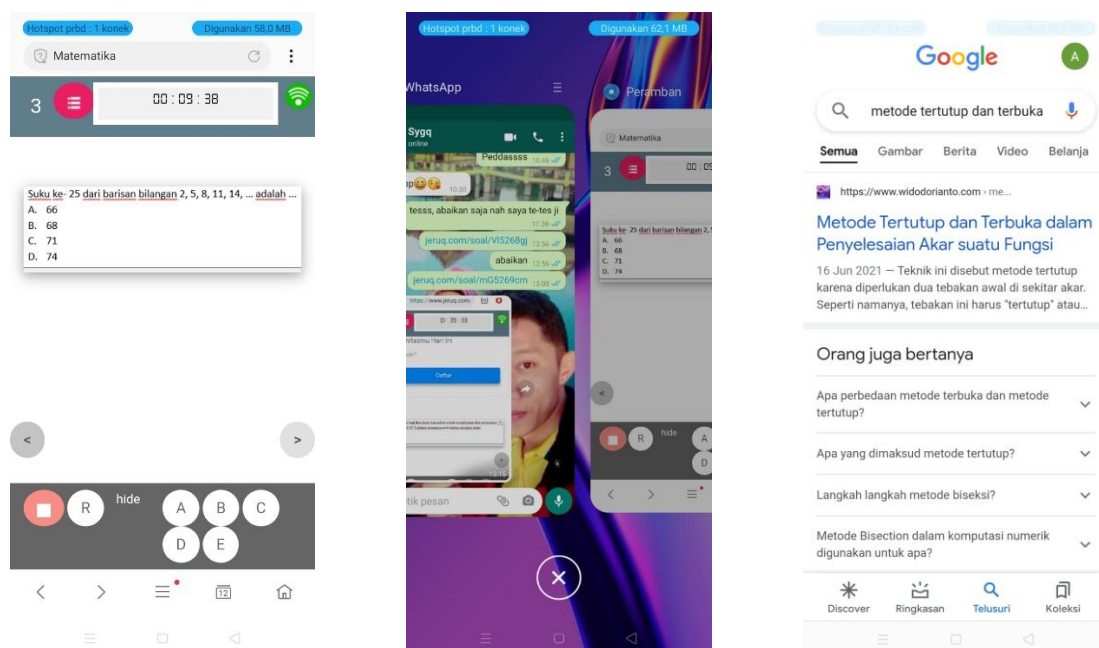


Figure 5. The process of changing tabs from questions to other pages that are not detected by the application.

Second, test takers on behalf of MI are allowed to open other applications during the exam process by pressing the home button on their smartphones. By pressing the Home button, participants are free to open any application they want. Just like IU, I also allow MI to open Google, Calculator, and other applications three times. But the fraud detector doesn't detect this at all.

Third, test takers on behalf of SY are not allowed to leave the question page until they are finished. However, the ads that appear on the first screen must be closed. For this participant, it was detected that he had committed 1 violation just because he closed the ad.

The four participants on behalf of MI were allowed to use the split-screen facility available on certain smartphones. By dividing the screen into two parts, while working on questions, participants can also open other applications without being disturbed. However, any application that is opened remains undetected by the fraud detector. Participants on behalf of MI were only detected to have committed 1 fraud because they closed the advertisement on the initial display of the question. Details of the violations committed by the 4 participants can be seen in the picture.

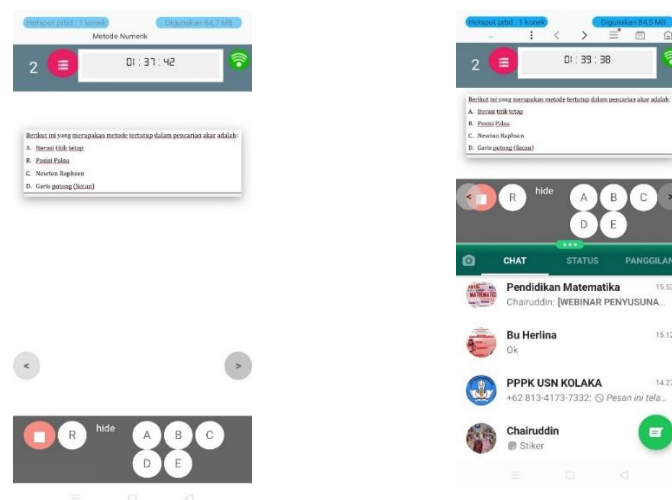


Figure 5. Split the screen that is not detected by the application

Tool	No	Nama	Kelompok	Benar	Salah	Kosong	Skor	Sisa Waktu	Status	Jumlah Pelanggaran
	5	Indo Uphe		11	5	0	69	01:31:04	SELESAI	0
	6	Muhammad Isra		8	8	0	50	01:34:41	SELESAI	1
	7	Dinda Ayu Permatasari		5	11	0	31	01:32:07	SELESAI	0
	8	Sartini Yetti		10	6	0	63	01:33:48	SELESAI	1

Figure 6. Summary of the number of violations detected.

Apart from this, there are several things that cannot be explained with certainty because the existing data contradicts the results of interviews with the participants concerned. First, the participant on behalf of Tirta Selvira in the existing data, it appears that he has committed 81 violations. We don't know where this big number came from because based on the interview results, participants never tried to get out of the question page. But at the time of the exam there

were about 4 incoming phone calls and all the calls were rejected. I witnessed this myself because I directly supervised the exam process.

Second, the participant on behalf of Ahmad Rahul was recorded to have violated 30 times. However, based on the results of the interview, this participant never pressed the Home button or the recent App button on the smartphone. Even if Ahmad presses the home button or recent App to open another application, even then it should not be detected because the two participants who did this were not detected cheating at all. Therefore, the number 30 cannot be explained how it appears. The number of violations of these two participants can be seen in the picture.

Tool	No	Nama	Kelompok	Benar	Salah	Kosong	Skor	Sisa Waktu	Status	Jumlah Pelanggaran
	21	Tirtaa Selvira		4	12	0	25	00:00:04	SELESAI	81
										
	27	Ahmad Rahul Rahul		12	4	0	75	00:06:28	SELESAI	30

Figure 7. The number of violations whose cause is not yet known with certainty.

It's different if we use a laptop or PC. Minimizing an application or opening a new tab is definitely a violation like what I did when trying to answer questions about using the application.

D. Conclusion

This application is very helpful for teachers or lecturers who want to make online exam questions quickly. However, in our opinion, this application is more suitable for use in institutions that have computer laboratories. The initial display that is covered with advertisements can be set before taking the exam so that participants do not experience problems. If using a smartphone the application does not run optimally because the fraud detector does not function optimally. Intending to streamline time with online exams, it may be that teachers/lecturers are overwhelmed in answering participant questions as we feel. If you want to use this application for exams using a smartphone, you should create practice questions to carry out simulations so that participants understand all the features before the actual exam process is carried out.

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