

# OPTIMIZATION OF “E-LEARNING” THROUGH FEATURES GOOGLE FORMS AND ADD-ON TO INCREASE STUDENT LEARNING EFFICIENCY

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## Abstract

*which will be used in the lecture process with the help of a feature called Google Form and Add-On. This aims to provide an understanding, especially for teachers in the lecture process, so that assignments and examinations can be done online which can provide updated and fast results and reduce the cost of making assignments for students.*

*The population of this study were all students of the S1 Study Program majoring in Management and Accounting at the Sekolah Tinggi Ilmu Ekonomi Enam Enam Kendari. Based on temporary data, the number of odd semester students is 857 students. The sampling technique in this research is using purposive sampling. In this study, a sample of 50 students representing each class of semester used online learning using the Google Form and Add-On features.*

*This research method uses qualitative descriptive analysis techniques, namely by creating an online learning model to improve student learning efficiency using Google Form and Add-On in detail.*

*The results showed that the use of online quizzes via google form and add-on really helped students in doing the assignments given because they could increase costs for students. In addition, with this online quiz, the process of checking the results of student answers is relatively fast because it does not require manual examination which takes a long time and helps teachers in giving assignments and learning more efficiently both in terms of time and from the aspect of cost. For further research, it is expected to be able to examine several applications and other online learning features that are useful in the learning process for students.*

**Keywords:** Optimization, E-Learning, Learning Efficiency

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## 1. INTRODUCTION

The learning process in the current development of information and communication technology (ICT) allows the student learning process to be more effective and efficient. The learning process no longer depends on the lecturer as the only source of learning, and can take place anytime and anywhere. The learning process is no longer only in the form of verbal communication between lecturers and students. With the rapid development of ICT in education, with the internet as an integral part of it, many educational institutions, especially universities, offer that they have implemented web-based learning, or what is often called online learning (e-Learning).

Sekolah Tinggi Ilmu Ekonomi Enam Enam Kendari, is one of the colleges that has started using online learning. This is in accordance with the direction of the Higher Education Service Institute which states that the lecture process in higher education has entered the 21st century network-based learning (online). For teachers in universities, especially at the Six Six Sixth School of Economics, Kendari have used online-based learning but the results are not optimal because it is still understood as a new process that requires time to adapt in using online learning. On the other hand, most of the lecturers still use face-to-face learning patterns, whether in the lecture process or in assigning assignments and examinations to students.

Along with innovations in the development of information and computer technology (ICT), the learning process can be carried out more efficiently if a teacher is able to understand the use of ICT and apply it to students in the lecture process in class and outside the classroom because of the use of e-learning through the Google Form feature. and Add-On can fill student expenses. Based on this, there are several problems in this study where the student learning process is still not efficient because it is still done manually which causes a lot of money and how to develop a model that can make the student learning process more efficient.

## 2. METHODS

This research will be carried out within the scope of campus with respondents all students of the Management Study Program and Accounting Study Program. The research time will be carried out for 8 months. The population of this study were all students of the S1 Study Program majoring in Management and Accounting at Sekolah Tinggi Ilmu Ekonomi Enam Enam Kendari. Based on temporary data, the number of odd semester students recorded is 857 students.

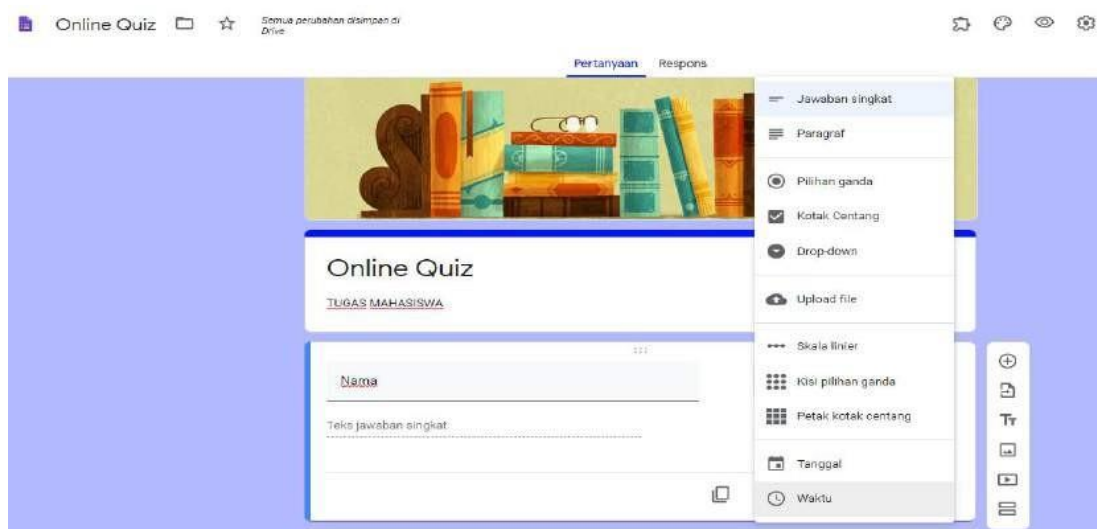
The sampling technique in this research is using purposive sampling. Purposive sampling is a data source sampling technique with certain considerations (Sugiyono, 2017: 85). In this study using a subject, namely 50 students representing each semester class who have used online learning using the Google Form and Add-On features. Apart from students, the subject of this research also involves lecturers who deliver courses. The reason the researchers took the subject of this study was that there was representation from the lecturers and students who were directly involved in online learning.

The variable observed in this study is the E-Learning variable using the Google Form and Add-On features where these two features will be applied in the learning process which will measure the level of learning efficiency. Next is the learning efficiency variable, namely the learning outcomes that will be measured after the application of e-learning to students which will be compared with learning before using the Google Form and Add-On features. The data analysis technique used in this research was descriptive qualitative data analysis techniques, namely creating a learning model using Google Form and Add-On in detail.

### 3. RESULTS AND DISCUSSION

#### Online Quiz Compilation using Google Form and Add-On

At this stage, assignments are given to students in the form of online quizzes using the google form and add-on features. The use of the google form feature is registered with google email where the quiz maker only needs to log into his google account. Checking the results of online quiz answers with google form is very easy because the results of the quiz answers will be stored on the google drive of the online quiz maker. Then the add-on feature is useful for adding a timer to the online quiz where students in doing the quiz are limited by the time required for students to work on the quiz before the given time runs out.



### Picture 1. Online Quiz Making Through Google Form

In the online quiz settings menu, it is activated that questions will be used as quizzes. This aims to provide an assessment score of each question that will be made. In addition, on the settings menu there are also several setting options such as whether students can immediately see the results of the answer scores or only the quiz maker can see the student's answer scores. Then there is also an option to set whether to show students the correct answer and correct answer for each question or can it be arranged that the answer can be hidden by the quiz owner.

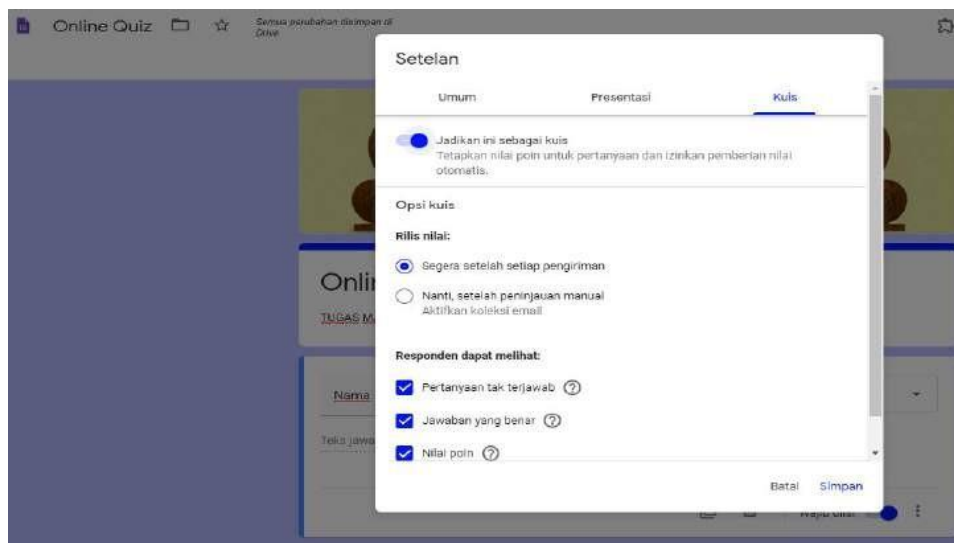
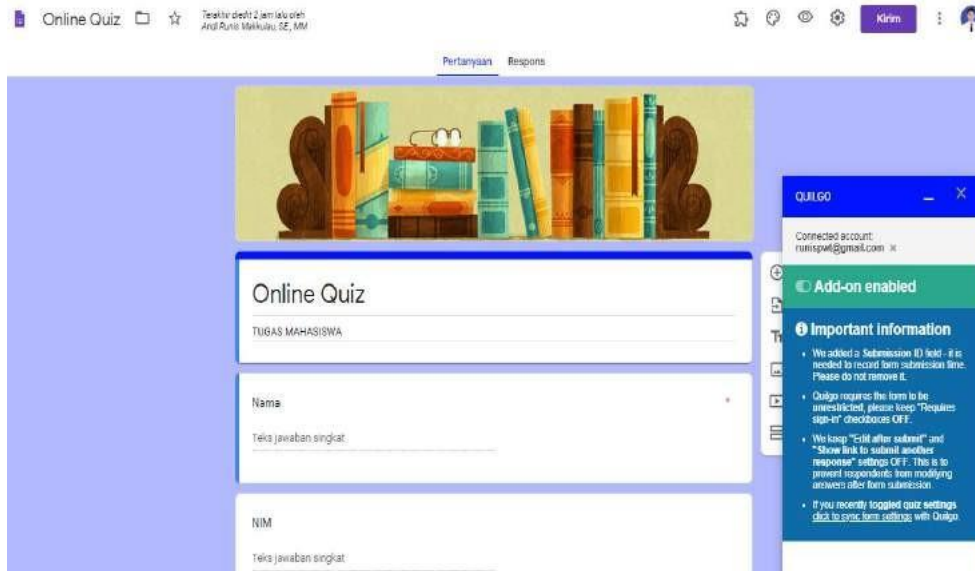


Figure 2. Online Quiz Settings Menu

To be able to add add-on features via google form, first activate the add-on where this add-on feature is directly connected with the owner of the online quiz account. There are many types of add-on features that can be selected in Google Forms that can be adjusted according to the needs based on the type of topic the form is being created on. In this research, the add-on taken is in the form of a timer which is useful for providing a time limit for processing online questions when students have entered to start working on the online assignment.



**Figure 3. Add-On Feature Added (Add-On)The Process of Using the Add-on Timer on the Online Quiz**

At this stage, after the online quiz has been created, it will then be inserted using the Quigo add-on feature. This feature has its own link, but the account owner can directly enter the Quigo link because it is automatically integrated with the Google email from the online quiz account owner. At this stage the owner of the online quiz will control how many students will take the online quiz. Each student will be given their own link to take the online quiz. In addition, in the process of using the add-on timer, the online quiz owner can set the amount of time that will be given to work on the online quiz.

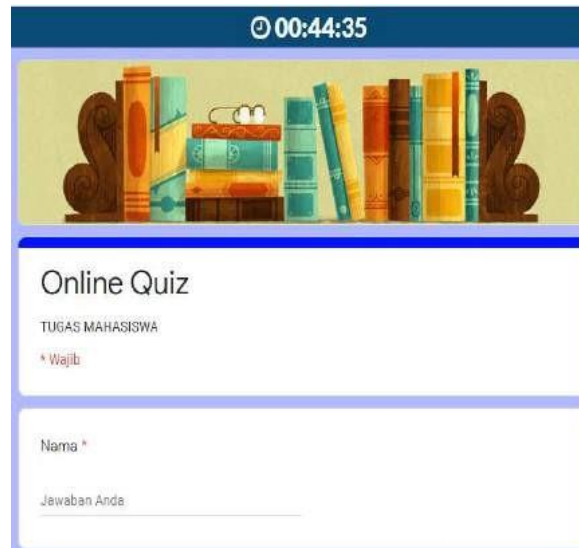
**Figure 4. The Process of Making Online Quiz Timer**

In the process of making an online quiz timer, it is done by entering the name of the student based on the number who will take the online quiz. Each student's name will be given a link to the online quiz to start working on. Furthermore, the owner of the online quiz can also set the duration of time for taking the test according to the wishes of the online quiz owner. The maximum time limit that can be given through this add-on timer feature is 120 minutes. In the example above, the online quiz owner made the duration of the online quiz for 45 minutes. Then after the online quiz link has been created, it will display the names of students who have been created with a predetermined time duration and will display a link (URL) for the online quiz to be distributed to each student who will work on the online quiz. The following is a display of the online quiz link for each student.

Respondent	Email	Info & Status
rini	<a href="#">Click to enter</a>	45 min - Submit anytime Not yet started
wati	<a href="#">Click to enter</a>	45 min - Submit anytime Not yet started
lisa	<a href="#">Click to enter</a>	45 min - Submit anytime Not yet started
irna	<a href="#">Click to enter</a>	45 min - Submit anytime Not yet started
mimi	<a href="#">Click to enter</a>	45 min - Submit anytime Not yet started
andhy	<a href="#">Click to enter</a>	45 min - Submit anytime Not yet started
raka	<a href="#">Click to enter</a>	45 min - Submit anytime Not yet started

**Figure 5. List of Online Quiz URLs**

From the results of making the online quiz timer, the owner of the account in this case is the teaching lecturer and then copies the URL of each student and shares it with the student concerned. The student then enters the URL and starts working on the online quiz with the time given for 45 minutes. The following is the appearance of the online quiz on each student account when they start working on the online quiz.



**Figure 6. Display of Online Quiz with Timer on Student Accounts**

After students enter the online quiz URL to work on the questions, the student's account will display a warning that the question form they are going to work on has limited time and if the student is ready to work on it then open the online quiz form. Then after the online quiz form opens, the time duration (45 minutes) to take the test starts automatically. Students must immediately work on these online questions and send them immediately before the test time runs out.

#### **The Process of Collecting and Examining Online Quiz Results**

This stage is the final stage of using online quizzes using google form with add-on timer. At this stage the student's answer scores will be checked where the online quiz scores will automatically be saved in the online quiz owner's account in the form of a spreadsheet. The results of the incoming student online quiz answers will be in order according to the time of delivery then the account owner can filter them based on the needs of the account owner. The following is a display of the results of student online quiz answers.

	A	B	C	D
1	Timestamp	Score	Nama Lengkap	Kelas
2	18/09/2020 18:57:26	30 / 40	rini	Minggu Sore
3	18/09/2020 19:48:14	34 / 40	wati	Minggu Sore
4	18/09/2020 21:24:45	31 / 40	linda	Minggu Sore
5	19/09/2020 10:33:39	22 / 40	irna	Minggu Sore
6	19/09/2020 18:47:35	20 / 40	codori	Minggu Sore
7	21/09/2020 15:45:31	31 / 40	mimi	Minggu Sore
8	21/09/2020 16:01:03	31 / 40	kastiah	Minggu Sore
9	21/09/2020 21:25:46	32 / 40	andhy	Minggu Sore
10	21/09/2020 21:31:25	35 / 40	sumarni	Rabu Malam
11	21/09/2020 21:37:43	32 / 40	Raka Aditya Putra	Minggu Sore
12	22/09/2020 13:29:24	35 / 40	hesti	Minggu Sore
13	22/09/2020 18:26:21	19 / 40	Fahri	Jumat Siang
14	22/09/2020 19:13:59	29 / 40	Suharni	Jumat Siang
15	22/09/2020 19:40:24	32 / 40	Yuni	Jumat Sore
16	22/09/2020 20:10:51	27 / 40	muswanto	Minggu Sore
17	22/09/2020 21:50:44	27 / 40	rifaldi	Rabu Malam
18	22/09/2020 22:36:01	32 / 40	Safrudin	Rabu Malam
19	22/09/2020 22:52:02	28 / 40	Dede	Minggu Sore
20	22/09/2020 23:14:23	30 / 40	Samsul	Minggu Sore
21	23/09/2020 8:23:35	24 / 40	rahman	Minggu Sore
22	23/09/2020 8:53:09	32 / 40	Suriati	Jumat Sore
23	23/09/2020 9:10:04	33 / 40	Yunus	Jumat Sore
24	23/09/2020 10:49:21	32 / 40	Riska Sukma Nirani	Minggu Sore
25	23/09/2020 11:48:02	28 / 40	ika	Minggu Sore

**Figure 7. Answers to the Student Online Quiz**

The initial stage in giving Online Quiz to students is to make questions and fill in student personal data on the Google Form application. The types of questions that are made will be adjusted to the subject topic taught to students. Usually the choice of questions that can be selected on the google form can be in the form of multiple choices or in the form of a long answer. After the online quiz is made, then the online form is set to become a quiz so that it can display the scoring of each question that has been made.

The next step is the Google online quiz form with the add-on feature provided by Quilgo. This add-on feature is useful as a timer or timer for processing questions on online quizzes. The account owner can insert time on the online quiz, which means that when doing online quizzes is limited by time and must be finished before the time runs out. If the time runs out, the student's answer score will not be recorded.

Based on the results of the answers to the student's online quiz, it certainly makes it very easy for the account owner, in this case, is a teacher. Account owners do not need to manually check the results of student answers and the time for collecting answers to online quizzes is relatively fast because they are automatically stored on the account owner's drive. In addition, using online quizzes can streamline the cost of assignments for students where they no longer need to spend money to buy necessities for doing assignments such as paper, pens, photocopy costs and other costs. The use of online quizzes using google form and an add-on feature in the form of a timer helps the online learning process flexibly because it can be used anytime and anywhere according to the time limit set by the online quiz owner.



#### 4. CONCLUSION

Based on the previous discussion, several conclusions can be drawn, namely as follows: (1) The use of online quizzes via google form and add-on is very helpful for students in doing the assignments given because it can increase costs for students. In addition, with this online quiz, the process of checking the results of student answers is relatively fast because it does not require manual examination which takes a long time. (2) The process of implementing online learning using google form and add-on helps teachers in giving assignments and learning more efficiently both in terms of time and in terms of cost.

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