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# What is the student response to using the weblogs for learning resources?

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**Abstract.** The utilization of the internet on learning is growing rapidly including on physics learning at every level. The aim of this research is to develop the weblogs to facilitate more various and easier learning resources. The weblogs development used 4D methods (define, design, develop and disseminate). The test of the product response was applied on 22 students. The questionnaire covered four aspects which were the language, the subject matter content, the layout, and the usefulness. The response items were measured using the Likert scale from 1 to 4 scales. The analysis technique was descriptive statistics. Results of analysis in the aspect of 3.09, 3.14, 3.21, and 3.28 from scale 4 respectively. Overall the result of student response analysis indicates that this weblog is good (3.18 out of 4) for use in learning. The further research should study on the impact of this media to the learning performance.

## 1. Introduction

The use of cutting-edge technology in everyday life has become a natural thing. Technology is growing over time. In education, technology is no less advanced regarding the learning process and evaluation. Technology becomes an effective learning tool and keeps students away from the decline of the times [1]. Internet network technology is increasing and can make it easy for everyone to access a variety of information from various sources. By using the Internet, we can incorporate broader report and knowledge [2] for every sectors including education [3]. Technology indeed plays a vital role in updating the original conception of justification that focuses on learning is merely a presentation of different knowledge into learning as guidance to be able to explore the precious socio-cultural understanding [4,5].

In the implementation of daily lessons, we often encounter the utilization of technological development in the world of education, as is usually done by a teacher or professor that combines technological tools for learning purposes. Capabilities and characteristics of the Internet allow for remote teaching and learning or e-learning to be more efficient and efficient to obtain maximum results. The usefulness of e-learning system influences the way learners evaluate their learning



experience [6]. The learning activities required to reduce the use of lecture and can be enriched using instructional media. Much less the current learning activities that emphasize skills and active learning process, then presumably the role of media, are becoming increasingly important [3,5].

The weblogs is one medium of e-learning with a personal view website. The contents of the materials or content may be text, images, videos, and much more. Lately, blog often used in the learning process. The blog is one of the strategic learning media to improve the process of active and interactive learning. The blog is a web service that is designed to enable users to publish information it holds through the writings contained in a post [7,8]. Based learning website provides more than just access. Quality-based learning website provides information which is not equal to traditional learning. Web-based learning may combine information more widely, of course, by combining the existing content with the information sources.

Evaluation of knowledge is one component that must be done by a professor in assessing the students. Assessments are often conducted on campus include quizzes, assignments, midterms and final exams. In general, the evaluation of learning is done manually, using print and implemented in classes. Sometimes some students actually have high ability, but because of a situation of this sort, he becomes uncomfortable, so the actual capabilities do not appear [9]. By using this quiz, the lecturer can determine whether the learning objectives have been achieved or not. Evaluation can be either on the readiness of students, student activities while following the course, an assessment of the material provided, even on the lecture method used by lecturers [7,9].

To overcome this, the evaluation was created by a different method than usual, namely with the advantage of technological developments. An example is the use of weblogs as a means and a tool for the evaluation of students. Preferred subjects are subjects Electrical Measurement Tool because it is suitable if applied in a quiz weblogs, of the evaluation system is done in writing. Electrical Test Equipment courses combine the concepts and analysis of electricity and not an exact calculation as other physics course. By using the expected evaluation, the weblogs can create an atmosphere that is effective, efficient, and attract students to improve student learning motivation.

## 2. Method

This study is a development using the 4D approach (define, design, develop, and disseminate). The weblogs was developed based on the WordPress platform. Evaluation developed in the weblogs consists of ten multiple choice questions and ten essay questions. Furthermore, this weblogs tested on students taking the course Electricity Measurement Tools at Certain private university in Jakarta, Indonesia for Academic Year 2017/2018. Number of the user samples is 22 students.

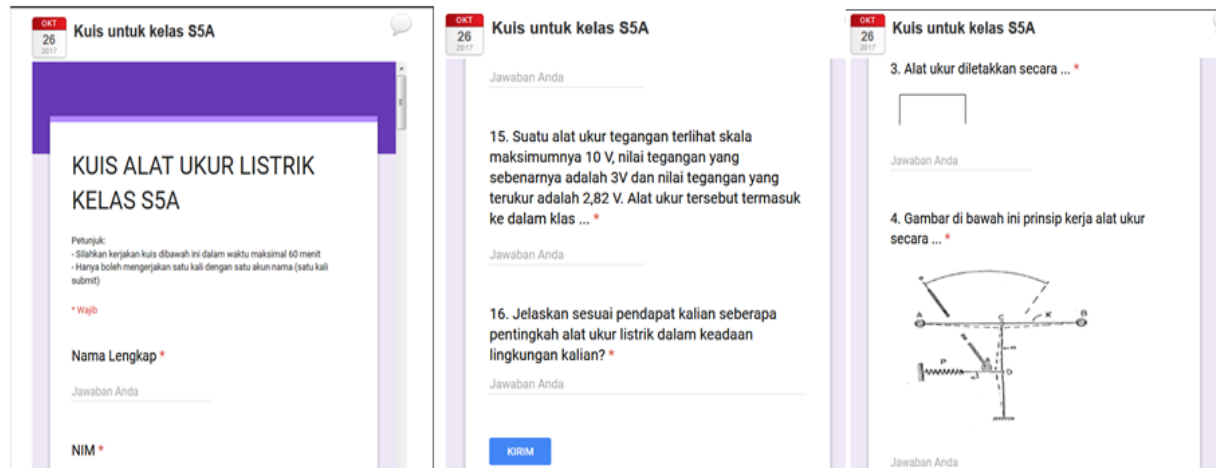
Means for identifying user response is the questionnaire. The questionnaire includes four aspects of the Language (3 items; L1 to L3), the subject matter (4 items; S1 to S4), the Layout (3 items; la1 to La3), and the Usefulness (5 items; U1 to U5). The scale of the instrument is the Likert scale from 1 (Absolutely Disagree) to 4 (Absolutely Agree). In meJenis this research is quantitative and qualitative research. Quantitative descriptive method is used when calculating the frequency of choice answers by respondents to the questions in the questionnaire.

Giving this evaluation is done after the students get the material introduction and working principles of electrical measuring devices. Students are given the information for the preparation of the quiz will be displayed on the weblogs. The student can read and download the learning material and the evaluation questions on the page weblogs content for the preparing of student learning. The duration to finish the evaluation is one hour. In this evaluation, students can access using a smartphone or laptop. Students can only do about evaluating one, and there is no remedial. All the data will automatically be recorded by Google Drive.

### 3. Result and discussion

#### 3.1. Result

The weblogs results of this study can be accessed at [www.irmien.wordpress.com](http://www.irmien.wordpress.com). The screenshot of the weblogs is shown in figure 1.



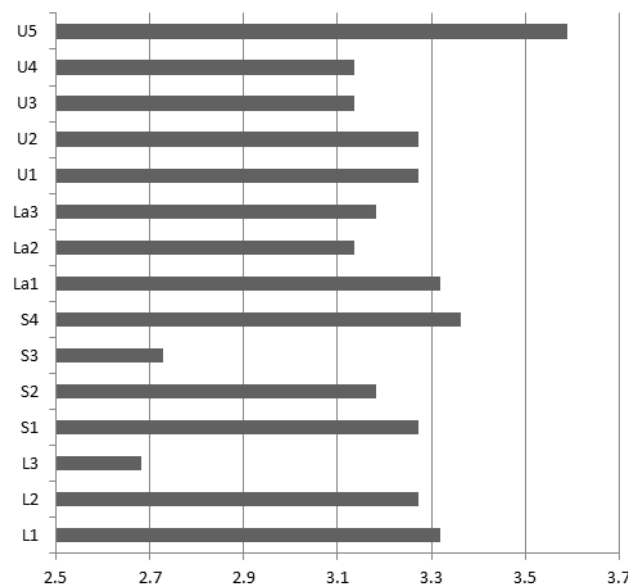
**Figure 1.** Figure of the screenshot of the weblogs for learning physics evaluation.

Data processing response results of student work on a weblogs quiz (22 students) and are stored on Google Drive, shown in table 1. The results of data processing of table 1 can be obtained an average score (column 7 of table 1) for each item. The average for each aspect is language (3.09), the subject matter (3.14), the layout (3.21), and the usefulness (3.28).

**Table 1.** The tabulation of the student responses to the weblogs based learning and evaluation.

Aspects		Frequency				Average Score	No. of samples
		Absolutely Disagree	Disagree	Agree	Absolutely Agree		
1	2	3	4	5	6	7	8
Langunge	L1	0.00	1.00	13.00	8.00	3.32	22.00
	L2	0.00	0.00	16.00	6.00	3.27	22.00
	L3	0.00	8.00	13.00	1.00	2.68	22.00
Subject matter	S1	0.00	5.00	6.00	11.00	3.27	22.00
	S2	0.00	0.00	18.00	4.00	3.18	22.00
	S3	0.00	8.00	12.00	2.00	2.73	22.00
	S4	0.00	0.00	14.00	8.00	3.36	22.00
Layouts	La1	0.00	1.00	13.00	8.00	3.32	22.00
	La2	0.00	3.00	13.00	6.00	3.14	22.00
	La3	0.00	1.00	16.00	5.00	3.18	22.00
Usefulness	U1	0.00	1.00	14.00	7.00	3.27	22.00
	U2	0.00	0.00	16.00	6.00	3.27	22.00
	U3	0.00	0.00	19.00	3.00	3.14	22.00
	U4	0.00	0.00	19.00	3.00	3.14	22.00
	U5	0.00	0.00	9.00	13.00	3.59	22.00

In the graph, the result of the average score can be shown in figure 2. We can see that all the items reach the score is above three unless the item L3 (Using the formal language) and S3 (Using logical reasoning). From table 1 can also be calculated the average score for all items (L1 to U5) was 3.18 on a scale of 4 or 79.51% if four equal to 100%.



**Figure 2.** Figure of the screenshot of the weblogs for learning physics evaluation.

### 3.2. Discussion

The results showed that the media weblogs can be used as a means to evaluate students. Even more, can be used as a medium of learning by utilizing weblogs. More effective use of weblogs with their access speed and network connection. Students can work on the problems quiz without any sense of nervous and such because the evaluation is not conducted face to face.

From the implementation of this quiz enthusiastic students are very high, they have been preparing to take the exam. Before the time specified for the examination, quiz questions cannot be read or known by the student. Here will be seen where the students were active and less active. From these results indicate a positive response to the evaluation tool with the weblogs. From the results of a questionnaire that was analyzed, we obtain some explanation of the indicators of some of the statements contained in the survey. The aspects which aspects of language, content material, layout, and usefulness.

The development of technology has created a breakthrough in learning. Technology is a useful learning tool and makes the students away from the setback times [10,11,12]. The learning design gives students access to learning anytime and anywhere. E-learning is progressive to be implemented [3]. It's the use of media technology in learning evaluation programmed from aspects of planning to help teachers integrate technology into the teaching program [10]. Must be incorporated between online learning with face to face with the teaching program because this will also help students to solve a problem [13,14].

Learning with the help of technology allows students to be active. After evaluating the weblogs, researchers tried to interview some of the students about the learning evaluation activities. Of the ten respondents stated that they preferred the evaluation of learning with the help of technologies such as weblogs because of quick access, by the times, and not monotonous. It also makes the students are motivated to learn.

Media or teaching materials will help students in quality question to make interactive learning process because the learning experience becomes more meaningful and satisfying [14,15]. It also can

motivate learners due to increase interest in learning to be faster and more productive. Technology-based learning (e-learning) is a learning package that is designed to measure psychological learning process of learners. From this perspective intends to their learning process technologies will change the paradigm that the techniques that are considered severe now become something that is easy and accessible to all.

In line with the research Kearns [16] that a system of online learning and assessment, students can manage their time efficiently and learn whenever and wherever they like, regardless of time and place. With the provision of an online evaluation (by e-learning) will impact extended benefits for both students and teachers [10,14]. For teachers will enhance the ability to develop a media. As for students, the students will quickly access the learning and evaluation of knowledge without distance limitations, since students can access and learn as they wish.

In fact, in the learning process, students increasingly require learning or web-based tool that is easily accessible electronically to search for subject matter. Convenience is then preferably learners. The use of weblogs allows teachers to exchange knowledge, provide classrooms to interact with students, allowing for reflection learning, and develop independent education [17,18]. The use of blogs has also substantially increased the motivation of learners to influence students' perceptions of learning positively and generate a positive attitude towards learning outcomes.

#### 4. Conclusion

From the results of research and discussion can be concluded that the use of media technologies through weblogs can be used as an evaluation tool that is a good student. Student response to media weblogs as an evaluation tool that is included into the stable category. It shows that almost all the students loved the evaluation weblogs. This media can affect student learning motivation while working on evaluation questions. In further research needs to be further examined how the impact of using a weblogs utilization to the performance of other learning.

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