

The Effect of the Use of Interactive Learning Media Based on Google Sites on Student's Learning Outcomes in Class XI Taxation Material at SMA Negeri 1 Barambai

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Abstract. The use of appropriate learning media is something that determines the success of learning. Learning media is divided into several types that can be adapted to the conditions and situations of a lesson. One of the media that can be used is interactive learning media based on google sites. This study aims to determine the effect of interactive learning media based on google sites on student learning outcomes on taxation material. This study uses an experimental method with a Pre-test and post-test Control Group Design. The results showed that based on the results of the Wilcoxon test conducted in the experimental group, it obtained a significance value of $0.000 < 0.05$, meaning that there was a positive and significant effect on the use of interactive learning media based on Google sites on student learning outcomes in taxation material. Meanwhile, the results of the Mann-Whitney test show that a significance value of $0.048 < 0.05$ means that there is a difference in student learning outcomes in the experimental group using interactive learning media based on google sites and the control group not using interactive learning media based on google sites, where the experimental group obtained the average value of learning outcomes is better than the control group.

1 Introduction

Student learning outcomes are the results given to students in the form of an assessment after participating in learning activities by assessing the knowledge, attitudes, and skills that exist in students through behavioral changes. These behavioral changes include changes that are cognitive (knowledge), psychomotor (skills), and affective (values and attitudes) [1].

Based on the results of observations and interviews conducted at SMA Negeri 1 Barambai, it is known that the learning outcomes of class XI social studies students in 2020 in economics subjects have the lowest average score on taxation material in economic development, which is 52.37, with the minimum completion criteria that have been set is 75.

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There were five students who scored above the minimum completion criteria, and another 16 students scored below the minimum completion criteria. The highest value is 90, and the lowest value is 30. This shows that only 23.81% have reached the minimum completion criteria, and 76.19% of them have yet to reach the minimum completion criteria that have been set. This proves that students' understanding of taxation materials still needs to be improved, which causes low student learning outcomes.

Table 1. Learning Outcomes of Class XI Social Studies Students in Economics Subjects for the 2020/2021 Academic Year.

Number	Main Material	Average Score
1	National Income in the Context of economic growth and Development	83,36
2	Employment in economic development	75,34
3	Inflation, policies monetary, and fiscal policy	77,49
4	Budgeting of state expenditure revenues and regional budgets in economic development	69,24
5	Taxation in economic development	52,37
6	Economic cooperation and international trade	64,03

Source: SMA Negeri 1 Barambai (2020)

Based on **Table 1**, the causes of low yields in Students' learning on taxation material at SMA Negeri 1 Barambai is that most students need help understanding material about conceptual knowledge and also the limited counting skills possessed by students. This problem is also faced by students who get grades on taxation material under the KKM because students need help understanding the material about conceptual knowledge and about tax calculations [1][2]. Another cause is the use of limited learning media. Research by Widiasih et al. (2017) stated that the use of learning media positively and significantly affected student learning outcomes in economic subjects [3]. Based on the results of observations and interviews conducted at SMA Negeri 1, Barambai obtained information that the learning media used were limited and did not vary, so students were not interested in learning; there were no learning media that was able to stimulate students' curiosity which caused students to be less independent in the learning process. The facts found the use of learning media at SMA Negeri 1 Barambai, namely google classroom and WhatsApp group. The learning process is only carried out by providing materials and assignments on google classroom and WhatsApp groups so that students don't really understand the material. The reason for using google classroom and WhatsApp group media is because the teacher is used to using the media, even though the teacher states that these media have made students feel bored and bored in learning. Research by Habibi (2020) states that the use of learning media in the form of google classroom and WhatsApp group has several drawbacks, namely learning only occurs in one direction, namely from the teacher, and students experience a decrease in the desire to learn [4]. This makes the selection of the right learning media very necessary.

The teacher's expertise influences the selection of learning media. If the teacher's expertise in using certain media types is limited, the teacher will refrain from using the media. This will also impact the diversity of types of media used by teachers. In addition, the teacher's knowledge in recognizing the function of learning media affects the selection of media types. Each type of media has its influence. This influence will be caused to students. This influence is related to who uses the media, how the media is used, how the media affects

its users, and how the media fits the material to be delivered. The learning media used needs to take advantage of current technology.

The use of appropriate technology in education can make it easy to get complete sources, information flows all the time regardless of time and place, students' activities and learning abilities increase, learning can be standardized, and the quality and quantity of learning outcomes increase [5]. Global demands force the education sector to match technical advancements to efforts to raise educational standards, particularly in terms of changing how information and communication technology is used in learning activities.

The use of information and communication technology has an important role in supporting the development of learning activities. The development of information and communication technology-based learning is based on cognitive psychology theory which states that learning includes the use of memory, motivation and thinking, and reflection. Currently, learning content delivery is only through makeshift media and needs to take advantage of available information and communication technology, so most students feel bored. At the same time, the types of learning media that can be used vary, such as print, audio, audiovisual, e-learning, reality, and interactive media [5]. Based on this, the use of interactive learning media is an alternative to the learning process. Tax material also needs to be delivered with interesting learning media and able to make students easy to understand the material being taught. Research by Zain (2020) states that the use of interactive learning media is proven to be significant, not only inviting students' enthusiasm to learn but also increasing students' knowledge and skill values on the concept of taxation [7].

The interactive learning media used can utilize audio and visual elements. Interactive learning media has an important role in learning activities that lead to interaction between the sender and the recipient of the message. Interactive learning media link text, sound, moving images, and videos to facilitate the learning process. The use of interactive learning media can increase students' desire to learn. In addition, the use of technology also plays an important role in supporting the selection of interactive learning media. One of the easy and simple ways to determine interactive learning media is to use google sites.

Learning media in the form of google sites is very appropriate as an alternative to choosing distance learning media. Google Sites learning media can also be used in face-to-face learning. Google Sites learning media is used as a learning tool to increase the positive impact of web use. Google Sites are website media that can be used in learning activities. Google Sites can also be called a web page creation tool launched by Google in 2008 that has the function of creating sites so that everyone can work together and share files with each other [6]. Google Sites are used to create classrooms, schools, or other websites. The use of google sites makes it easier for users to group various information in the same place, such as presentations, videos, text, attachments, and so on, that can be shared according to the user's wishes [7].

The benefits obtained from the use of Google sites are that they can make learning more interesting, subject matter easier to obtain and not easily lost, students can get information quickly, and can provide reciprocity to students in the form of assignments. The features available on google sites are diverse such as google docs, forms, sheets, calendars, awesome tables, and others. Other conveniences that exist on google sites are free of charge, easy to create, and online storage that is available for free for 100 MB and can be accessed from various devices connected to the internet network, such as tablets, personal computers, laptops, and smartphones. Research by Arumdani et al. (2018) states that there is a positive and significant influence between the use of google sites as a learning resource on learning achievement in economics subjects [8].

In addition to the selection of learning media, in order to achieve the goal that students are able to understand the material regarding taxation, it is also necessary to select relevant learning models. The use of interactive learning media based on google sites with taxation

material is very suitable to be combined with a problem-based learning model so that students can solve problems related to the material presented using the scientific method. A study by Santi et al. (2020) stated that there are differences in the improvement of students' problem-solving abilities using problem-based learning methods compared to conventional methods, where by using problem-based learning methods in Economics Subjects with taxation materials, students show higher problem-solving abilities compared to using conventional method [9].

Problem-based learning (PBL) is a learning model where realistic and actual thinking can be applied comprehensively because it contains elements to find and solve problems simultaneously [10]. The goal to be achieved in the problem-based learning model is the ability of students to think creatively, systematically, analytically, and logically to find alternative problem-solving by exploring empirical data to bring up scientific behavior. The advantages of the problem-based learning model are that students can learn, remember, apply, and continue the learning process independently, and teachers can treat students as mature individuals by giving students the freedom to apply existing knowledge or experience to solve problems [11].

Utilization of appropriate learning media needs to be done in order to overcome the existing problems, namely in terms of increasing student learning outcomes on taxation material. The use of interactive learning media based on google sites is also a form of support for the learning process to make it more interesting and lead to student independence in the learning process. This study aims to determine the effect of interactive learning media based on google sites on student learning outcomes on taxation material.

2 Methods

This study used an experimental method. The research design used was a pretest-posttest control group design which included an experimental group (using interactive learning media based on google sites) and a control group (not using interactive learning media based on google sites). The subjects of this study were students of class XI Social Sciences SMA Negeri 1 Barambai, South Kalimantan, Indonesia, where students of class XI Social Sciences 1 as the experimental group and students of class XI Social Sciences 2 as the control group with the number of students in each class was 20 people.

The type of data used in this research is quantitative data. Data collection methods used are interviews, documentation, and tests for students at the beginning and end of learning. The research instrument used was a written test in the form of multiple choice with a total of 10 items. The test was administered through a pre-test and post-test using the same questions. The pre-test was given to both groups before the experimental group was given treatment, and the post-test was given to both groups after the experimental group was given treatment.

The data analysis method used in this research is quantitative descriptive analysis. The level of student understanding is classified based on the value obtained. The category of students' level of understanding was grouped into complete, with a scoring category of 75, and incomplete, with a scoring category of < 75. Meanwhile, to determine whether or not there is an effect of the use of interactive learning media based on Google sites on student learning outcomes, the Wilcoxon test and Mann Whitney.

3 Results and Discussion

3.1 Results

3.1.1 Utilization of Google Sites-Based Interactive Learning Media in Taxation Materials

Interactive learning media based on google sites are used on taxation materials in economic development for class XI. In this media, there are several menus, including the home page, KI and KD, learning objectives, concept maps, learning materials, learning videos, games, exercises, resources, and profiles. The home page is the initial part of the learning media display, which contains information on the material presented, the target level of the material, welcome greetings, navigation buttons, learning instructions, procedures for using learning media, and motivational sentences. The KI and KD menus contain information about the core competencies and basic competencies used. The learning objectives menu contains information about the learning objectives that students will achieve after studying the material. The concept map menu presents short, concise, and clear information about a material that serves to provide convenience in understanding the material. The learning material menu is divided into two, namely, the initial menu and the content menu. The initial menu of the learning material contains a button for learning activities and instructions for learning activities. In the content menu, the learning material contains material on taxation in economic development with seven discussions. The learning video menu contains videos related to taxation materials. The games menu contains three games that can be played by students, including maze chase, match up, and matching pairs. The practice menu contains a Taxation Exercise button that is used to start working on practice questions. The source menu contains books that are used as references in taking learning materials contained in learning media. The profile menu contains photos and biodata of the compiler, the name of the institution, and the year of creation of the learning media.



(a)



(b)



(c)



(d)

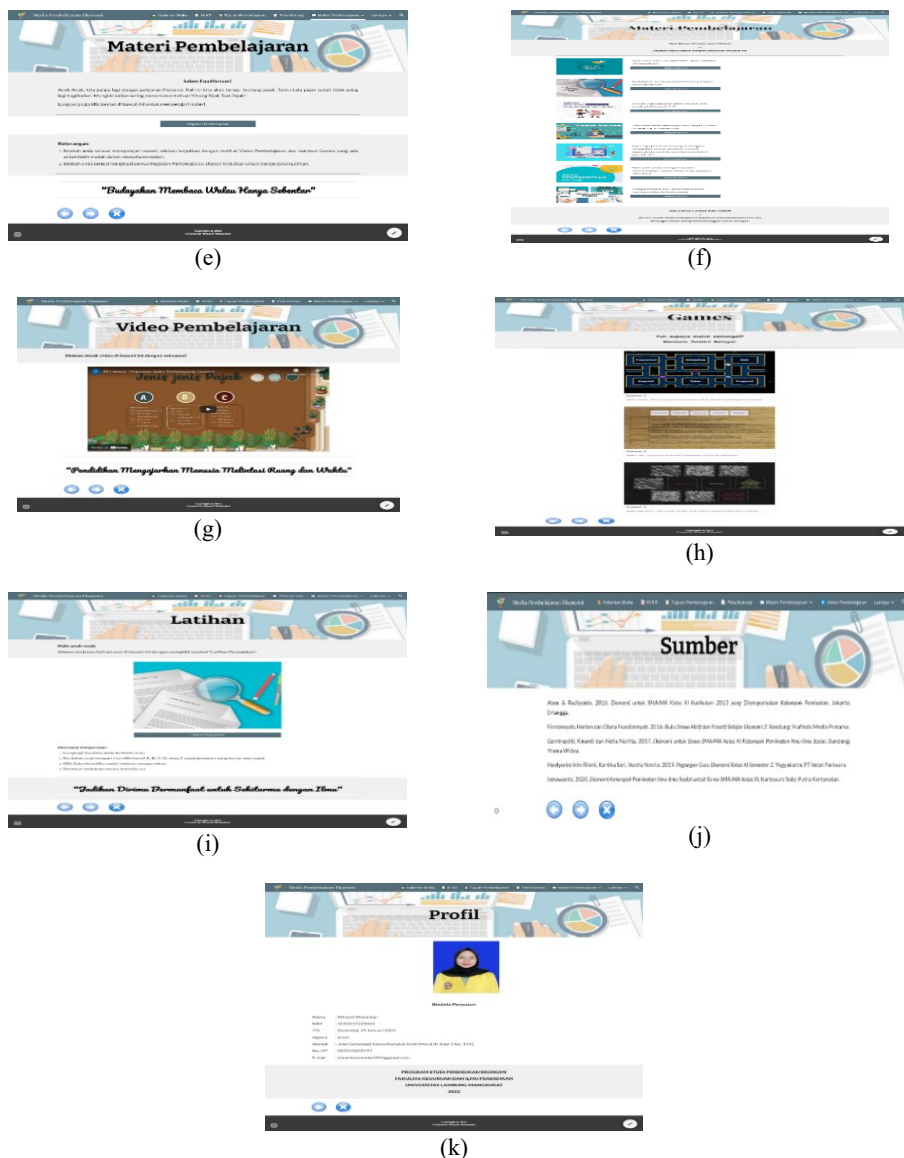


Fig. 1. (a) Home Page Menu, (b) KI and KD Menu, (c) Learning Objectives Menu, (d) Concept Map Menu, (e) Initial Menu for Learning Materials, (f) Menu Contents for Learning Materials, (g) Learning Video Menu, (h) Games Menu, (i) Exercise Menu, (j) Resource Menu, and (k) Profile Menu.

3.1.2 Student Learning Outcomes Class XI Social Sciences SMA Negeri 1 Barambai

Student learning outcomes are measured through the results of working on pre-test and post-test questions. Pre-test and post-test questions are given to students of class XI Social Sciences 1 and XI Social Sciences 2 at SMA Negeri 1 Barambai with the number of students in each class, which is 20 students. The data on the learning outcomes of class XI Social Studies 1 students (experimental group) are as follows:

Table 2. Student Learning Outcomes of Class XI Social Sciences 1.

Indicators	Pre-test	Post-test
Minimum Completion Criteria	75	75
Total Score	850	1610
Average	42,5	80,5
Highest Score	80	100
Score Lowest	10	50
Percentage Completed	10%	80%
Percentage Uncompleted	90%	20%

Source: Data Processed by Researchers (2022)

Table 2 shows that the learning completion of class XI Social Sciences 1 students in the pre-test implementation obtained a total score of 850 with an average of 42.5, the highest score of 80, and the lowest score of 10 with a completion level of 10% where there were only two students who reached the minimum completion criteria and 18 other students had not met the minimum completion criteria. In the post-test implementation, a total score of 1610 was obtained with an average of 80.5, the highest score of 100, and the lowest score of 50 with a completion rate of 80% where 16 students reached the minimum completion criteria, and four students did not reach the minimum completion criteria. Students who do not reach the minimum completion criteria are given a re-explanation of the taxation material in order to improve student's understanding of the material further, but students are not given a retest. Based on this, it shows that there is an increase in student learning completeness after being given treatment using interactive learning media based on google sites.

The data on student learning outcomes of class XI Social Sciences 2 (control group) are as follows:

Table 3. Student Learning Outcomes of Class XI Social Sciences 2.

Indicators	Pre-test	Post-test
Minimum Completion Criteria	75	75
Total Score	820	1380
Average	41	69
Highest Score	80	100
Score Lowest	20	40
Percentage Completed	5%	55%
Percentage Uncompleted	95%	45%

Source: Data Processed by Researchers (2022)

Table 3 shows that the learning completion of class XI Social Sciences 2 students in the pre-test implementation obtained a total of 820 scores with an average of 41, the highest score of 80, and the lowest score of 20 with a completion rate of 5% where there was only one student who reached the minimum completion criteria, and 19 other students did not meet the minimum completion criteria. In the post-test implementation, a total score of 1380 was obtained with an average of 69, the highest score of 100, and the lowest score of 40 with a completion rate of 55% where 11 students reached the minimum completion criteria, and nine students did not reach the minimum completion criteria. Students who do not reach the minimum completion criteria are given a re-explanation of the taxation material in order to improve student's understanding of the material further, but students are not given a retest. Based on this, it shows that there is an increase in student learning completion after learning.

3.1.3 The Effect of Utilizing Google Sites-Based Interactive Learning Media on Student Learning Outcomes

The Wilcoxon test was carried out with the help of the IBM SPSS program. The results of the Wilcoxon test calculations carried out are as follows:

Table 4. Wilcoxon Test Results.

Test Statistics ^a		
	Post-test Experiment - Pretest Experiment	Post-test Control - Pretest Control
Z	-3.954 ^b	-3.489 ^b
Asymp. Sig. (2-tailed)	.000	.000
a. Wilcoxon Signed Ranks Test		
b. Based on negative ranks.		

Source: Data Processed by Researchers (2022)

Table 4 shows that the results of the Wilcoxon conducted in the experimental group are 0.000. Where the significance value is $0.000 < 0.05$, then H_0 is rejected, and H_a is accepted. This proves that there is a positive and significant influence on the use of interactive learning media based on google sites on student learning outcomes on taxation material. Meanwhile, the result of the Wilcoxon conducted in the control group was 0.000. Since the significance value is $0.000 < 0.05$, there is a difference between the pre-test and post-test in the control group without the use of interactive learning media based on google sites.

The Mann-Whitney test was conducted with the help of the IBM SPSS program. The results of the calculation of the Mann-Whitney test carried out are as follows:

Table 5. Mann Whitney Test Result.

Test Statistics	
	Study Results
Mann-Whitney U	130.500
Wilcoxon W	340.500
Z	-1.978
Asymp. Sig. (2-tailed)	.048
Exact Sig. [2*(1-tailed Sig.)]	.060 ^b
a. Grouping Variable: Class	
b. Not corrected for ties	

Source: Data Processed by Researchers (2022)

Table 5 shows the significance value of $0.048 < 0.05$ so that it can be concluded that there are differences in the learning outcomes of students in the experimental group using Google sites-based interactive learning media and the control group that does not use Google sites-based interactive learning media. Because of the differences, there is a positive and significant influence on the use of interactive learning media based on Google sites on student learning outcomes on taxation materials.

3.2 Discussion

Student learning outcomes on taxation material in economic development classes XI Social Sciences 1 and XI Social Sciences 2 can be seen as follows:

Table 6. Student Learning Outcomes Class XI Social Sciences 1 and XI Social Sciences 2.

No	Indicator	Class XI Social Sciences 1		Class XI Social Sciences 2	
		Pre-test	Post-test	Pre-test	Post-test
1	Average	42,5	80,5	41	69
2	Highest Score	80	100	80	100
3	Lowest Score	10	50	20	40
4	Completeness Level	10%	80%	5%	55%

Source: Data Processed by Researchers (2022)

Table 6 shows that there is an increase in student learning completion which is higher in class XI Social Sciences 1 (experimental group) than in class XI Social Sciences 2 (control group), where in class XI Social Sciences 1, the completion rate is 10% to 80% while the completion rate in class XI Social Sciences 2 from 5% to 55%. This is because, in class XI, Social Sciences 1 (experimental group) was given treatment using interactive learning media based on google sites, while in class XI, Social Sciences 2 (control group) was not given treatment. These results are in accordance with research owned by Japrizal & Irfan (2021), which states that there is an increase in student learning completion which is higher in the experimental class than in the control class, where in the experimental class, the completion rate is from 35.3% to 88.2%, and the completion rate in the control class is from 27.2% to 61.1% [12].

In this study, the Wilcoxon test and Mann Whitney were used to determine whether there is an effect of the use of interactive learning media based on Google sites on student learning outcomes. The result is that there is a positive and significant effect of using interactive learning media based on google sites on student learning outcomes on taxation material. This is evidenced by the results of the Wilcoxon in the experimental group, which obtained a significance value of $0.000 < 0.05$, so that H_0 was rejected and H_a was accepted. This proves that there is a positive and significant influence on the use of interactive learning media based on google sites on student learning outcomes on taxation material. Meanwhile, the control group obtained a significance value of $0.000 < 0.05$, which means that there is a difference between the pre-test and post-test in the control group without the use of interactive learning media based on google sites. However, in the experimental group, the use of interactive learning media based on google sites on student learning outcomes on taxation material had a better effect than the control group that did not use interactive learning media based on google sites. These results are in accordance with the research of Rahmawati et al. (2021), which showed that the treatment using the website significantly affected the improvement of student learning outcomes based on the Wilcoxon with a significance value of $0.000 < 0.05$ [13].

This is also evidenced by the results of the Mann Whitney, which obtained a significance value of 0.048 where the significance value was $0.048 < 0.05$, so H_0 was rejected, and H_a was accepted. This proves that there are differences in student learning outcomes in the experimental group using interactive learning media based on google sites and the control group not using interactive learning media based on google sites, whereas, in the experimental group, the average value of learning outcomes is better than the group control. These results are in accordance with the research of Huurun'ien et al. (2018), which states

that there is a difference in post-test between the control class and the experimental class after being given the treatment media website test Mann Whitney with a significance value of $0.000 < 0.05$ [14].

4 Conclusion

The present work revealed that there is a positive and significant effect of interactive learning media based on Google sites on student learning outcomes on taxation material for class XI Social Sciences at SMA Negeri 1 Barambai.

Future research is expected to be able to continue research until all students have mastered learning, discuss the analysis of the learning process that takes place in the classroom when using interactive learning media based on google sites, and create High Order Thinking Skill (HOTS) questions that are included in the learning media.

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