Development Of Interactive Learning Media Based On Articulate Storyline 3 In Accounting Subjects To Increase Student Learning Motivation In High School

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Abstract: The objectives of this research are: (1) Producing interactive learning media based on articulate storyline 3 in high school accounting learning subjects. (2) Producinh interactive learning media based on articulate storyline 3 which is feasible in learning high school accounting. (3) Knowing the effectiveness of interactive media development based on articulate storyline 3 in high school accounting subjects in increasing students' learning motivation.The type of the research used is research and development with the ADDIE model. The media trial design used a nonequivalent control group experimental design. The feasibility of the product was tested by media experts, material experts, learning practitioners namely teachers, and media users namely students. The media was tested on the research subjects, namely students of class XII IPS 3 SMA N 1 Seyegan. Data collection was carried out by using observation, interviews, and questionnaires. The data collection instruments used interview guidelines, expert validation questionnaire, material validation questionnaire, teacher response questionnaire, student response questionnaire, and student motivation questionnaire. The feasibility of the learning media produced was analysed by using 4 scales, namely very feasible, feasible, inappropriate, and very inappropriate. The results of the study show: (1) Interactive learning learning media based on Articulate Storyline 3 has been successfully developed to increase students' learning motivation in high school; (2) Interactive learning learning media based on Articulate Storyline 3 is considered feasible by media experts with a score of 3.66; material experts with a score of 3.47; teacher practitioners 3.65; and students 3.38; (3) Based on the difference in gain score of the experimental group (0.61) from the control which is (0.45), learning media can increase students' learning motivation.

Keywords: Multimedia, Motivation, Learning, Education.

1. INTRODUCTION

Education is a planned, programmed and continuous effort to help students develop their abilities optimally, both in cognitive aspects, effective aspects and psychomotor aspects. Education can be said to be an activity in the form of a process towards growth, development, and changes that occur in students in learning activities whose results can be enjoyed after a long time.

Motivation is an important psychological factor in the learning process. Motivation is generated through a stimulus situation with memory to be able to influence students in such a way according to mechanical laws so that it functions in directing, activating and increasing student activity in the learning process (Neni Fitriana, 2021). Thus motivation is an effort that can cause a certain person or group of people to move to do something to achieve the desired goal or get satisfaction with their actions. For this reason, motivation is an internal process that activates, guides, and maintains behaviour over a period of time. Motivation is the overall driving force within that gives rise to learning activities that ensure the continuity of

learning activities (Widhayanti et al., 2021). Motivation is the encouragement given by the teacher to students to foster high self-confidence in order to achieve the desired goals. Motivation is an ability that exists within students in achieving goals (Pratama et al., 2019).

Learning motivation is one of the factors that determine the effectiveness of learning. A learner will learn well if there is a driving factor, namely learning motivation. Learners will learn seriously if they have high learning motivation. According to Uno (2019) that learning motivation is an internal and external motivation in students who are learning to make behaviour, generally with several indicators or elements that support. These indicators include: the desire and desire to succeed, encouragement and needs in learning, future hopes and ideals, appreciation in learning, and a conducive learning environment. In addition (Winkel, 2010) states that learning motivation is the overall psychological driving force in students that gives rise to learning activities in order to achieve a goal. In line with the above opinion, (Sardiman., 2011) explains that learning motivation is the entire driving force within students that gives rise to learning activities that ensure the continuity of learning activities that provide direction to learning activities so that the goals desired by the learning subject can be achieved.' From some of the above opinions, it can be concluded that learning motivation is the entire psychological driving force within individual students that can provide encouragement to learn in order to achieve the goals of learning.

This is supported by survey data in the form of questions given by researchers to 60 students of class XII social studies at SMA N 1 Seyegan randomly. The following is a diagram of the data from the observation of students in class XII IPS. The results of the survey data on the enthusiastic aspect of learning accounting as many as 58% (35 students) felt less enthusiastic during learning because of the changing learning system. Then, as many as 58% (38 students) stated that during the current learning it was difficult to understand the accounting material was difficult to understand and students also felt that it was often difficult to answer questions given by the teacher. As many as 74% (44 students) revealed that learning intensity was reduced during learning hours and as many as 86% (52 students) wanted learning media that was interesting and could increase their learning motivation which could have an impact on better student learning outcomes. From the presentation of the indicators above, it can be concluded that there are still problems of student learning motivation itself in both private and public high schools. This is also supported by the results of interviews conducted by researchers.

Articulate Storyline 3-based learning media allows the creation of interactive and engaging learning content. The application has an intuitive interface, so users, both beginners

and professionals, can operate it without requiring high technical skills. This enables the creation of learning materials quickly and efficiently. Content created using Articulate Storyline 3 can be accessed on various devices, such as computers, tablets and smartphones. Articulate Storyline 3 supports e-learning standards such as SCORM and Tin Can API, so content can be integrated with existing Learning Management Systems (LMS). This facilitates comprehensive tracking of learners' learning outcomes. With its comprehensive features, Articulate Storyline 3 allows users to customise learning materials according to specific needs. The app provides various animations and transition effects that enrich the learning experience. With strong media support, users can deliver materials in a more engaging and dynamic manner. Articulate Storyline 3 is ideal for self-paced learning as learners can access materials at their own pace and needs, as well as allowing repetition of materials for deeper understanding.

Articulate Storyline 3-based learning media as an interactive digital learning media is able to offer practicality for its users such as video/audio/animation listening activities, reading material, and quizzes as a form of evaluation integrated in one media. Interactive learning media based on articulate storyline so that it can have a potential impact on increasing student learning motivation with a percentage of 82.1% which is included in learning motivation in the high category (Refmana, 2018). Fariz Budiarto (2022) through his research conveyed that interactive learning multimedia based on Articulate Storyline 3 was declared effective for increasing learning motivation and learning achievement. This means that articulate media really helps learning to be more practical and effective. Abd. Ghofur and Ety Youhanita (2020) in their research revealed that there was an increase in learning motivation for learning strategies in students using interactive multimedia. The use of Articulate Storyline 3 as an interactive learning media to increase learning motivation is declared effective because it is at a high level of effectiveness (Sukmarini, 2021).

Interactive learning media based on Articualte Storyline in the subject of Banking Accounting and Microfinance class XI Banking Services is very feasible to use as teaching media for Banking Accounting & Microfinance in the learning process (Muamalah & Rochmawati, 2023). Articulate storyline 3 has several interesting advantages to be able to support the learning process, (1) it can be made easily by yourself, whether you are experienced or not, (2) it can include several forms of files, such as text, images, videos, animations, and so on, (3) it can be audio and visual, sound and images can be made in articulate storyline 3, (4) there is a quiz creation application without uploading files that are outside, and (5) providing interactive content that involves students more in learning. The

articulate storyline 3 application can be used as an independent learning media for students. Another advantage is that Articulate Storyline 3 has more complete features so that users can be creative by creating and developing more interesting and interactive learning media. Multimedia development in this study uses Articulate Storyline 3. Articulate Storyline 3 is the latest version of the Articulate Storyline 3 software which has complete and most qualified facilities compared to previous versions (Budiarto, 2021).

Based on the results of the description above research and the phenomenon, the researcher conducted a study with the title 'Development of Interactive Learning Media Based on Articulate Storyline 3 in Accounting Subjects to Increase Student Learning Motivation in High School'.

2. RESEARCH METHODS

This type of research is research and development (Research and Development). The research model to be carried out in this study is Research and Development (R&D). Development research is a research method used to produce certain products, and test the effectiveness of these products (Sugiyono, 2018: 297). While the development model used in this research is the ADDIE development model (Analysis, Design, Development, Implementation and Evaluation). The ADDIE development model is a general model suitable for development research.

The research trial design was carried out to determine the feasibility and effectiveness of the product. What was developed was an interactive learning media based on Articulate Storyline 3. The research design used in this research is Quasi experiment (quasi experiment). According to Creswell (2015) quasi experiment is an experimental design conducted without randomisation, but involves the placement of participants into groups. The design of the quasi-experimental approach used is nonequivalent control group design. In the nonequivalent control group design there is a pretest before being given treatment/treatment and then given a posttest after being given treatment/treatment. Thus the results of the treatment can be known more accurately, because it can compare with the existence before treatment (Sugiyono, 2017: 79).

At first the steps taken were to collect initial information by conducting a preliminary study in the form of need analysis. This step is done to find the problems experienced by students and the needs of students in learning accounting. The preliminary study was also carried out by reviewing several relevant sources of information. The preliminary study was carried out by means of observations and interviews with class XII accounting teachers in the

Social Studies Department at SMA N 1 Seyegan and analysing existing documents at the school.

In the design stage, the researcher designs interactive learning media based on Articulate Storyline 3 which includes two steps: (1) Collecting theories and reference sources related to the accounting problems of adjusting journals in trading companies that will be included in the interactive learning media based on Articulate Storyline 3. (2) Preparation of interactive learning media based on Articulate Storyline.

After the above stage, the things done at the development stage are: validating the product developed by the experts. The validation of this initial product design was carried out to determine the feasibility of Articulate Storyline 3-based interactive learning media before being tested in the field. The experts involved in assessing this product are: material experts to assess the content of the material contained in the Articulate Storyline 3-based interactive learning media, media experts to assess the quality of Articulate Storyline 3-based interactive learning media as learning media. The results of the experts' assessment in the form of scores, then calculated and converted so as to obtain product feasibility assessment criteria from material experts and media experts. In addition, the data obtained in the form of suggestions or input used to improve interactive learning media based on Articulate Storyline 3. The next step is to validate the research instrument to get a valid instrument to be used in this study because basically this instrument aims to measure changes in students' learning motivation. The instrument that has been made is then validated by the instrument validator before use. Before being used in data collection, it is necessary to validate the research instrument. Instrument validators will provide opinions related to the instruments that are compiled. The results of input and opinions will be used as revision material and can then be used in instrument data collection.

To determine the effectiveness of the product in order to increase students' learning motivation. The proposed model/method design is applied during implementation. This implementation step is useful for refining the finished product and learning how the media is received by students. In a field trial class, this implementation stage is directly tested. At this stage, students are given a questionnaire to find out the score before treatment and after treatment. Also at this stage of implementation, a questionnaire was given to students of class XII IPS 3 to find out their responses regarding the feasibility of the media developed.

At the evaluation stage, the researchers conducted an assessment to see whether the objectives of making learning media based on Articulate Storyline 3 had been achieved. Evaluation is a data collection activity to measure the extent to which the effectiveness of

learning activities and learning objectives are achieved. By using Articulate Storyline 3-based Interactive Learning Media, evaluation is carried out by looking at the results of questionnaire scores given to students to identify changes in student learning motivation. At this evaluation stage, it aims to see how feasible Articulate Storyline 3 learning media is in the classroom.

3. RESEARCH RESULTS AND DISCUSSION

Table 1. Media Expert Validation

No	Aspect	Total Score	Average	Information
1	Cover	21	3.5	Worthy
2	Intrudaction Page	11	3.66	Worthy
3	Main Part	33	3.66	Worthy
4	Clossing Part	12	4	Very Worthy
Total		**77**	**3.66**	**Worthy**

Based on the table above, the average cover aspect score of 3.5 is included in the Eligible category. Then for the aspects of the introduction page and the main part, the average score is 3.66 including the Worthy category, and the average score of the closing aspect of 4 is included in the Very Worthy group. The overall average score of 3.66 for the Media Expert validation results based on the cover aspect, introduction page, main section, and closing section. Based on the Media Expert validation, these findings indicate that Articulate Storyline 3 Learning Media is included in the Feasible category.

Table 2. Material Expert Validation

No	Aspect	Total Score	Average	Information
1	Material	25	3.57	Worthy
2	Construction	22	3.14	Worthy
3	Language	12	4	Very Worthy
Total		**59**	**3,47**	**Worthy**

Based on the table above, the average score of the material aspect of 3.57 is included in the Eligible category. Then for the construction aspect the score is 3.14 including the Decent category, and the average score of the language aspect is 4 including in the Very Decent group. The overall average score of 3.47 for the results of the Material Expert validation based on material, construction, and language aspects. Based on the Material Expert validation, these findings indicate that Articulate Storyline 3 Learning Media is included in the Eligible category.

Table 3. Teacher Validation

No	Aspect	Total Score	Average	Information
1	Material	18	3.6	Worthy
2	Presentation	22	3.66	Worthy
3	Language	14	3.5	Worthy
4	Appearance	19	3.8	Worthy
	Total	**73**	**3.65**	**Worthy**

Based on the table above, the average score of the material aspect of 3.6 is included in the Eligible category. Then for the presentation aspect the score is 3.66 including the Eligible category, the average language aspect score is 3.5 including the Eligible category, and the average display aspect score of 3.8 including in the Eligible group. The overall average score of 3.65 for the Teacher validation results based on material, presentation, language, and display aspects. Based on Teacher validation, this finding shows that Articulate Storyline 3 Learning Media is included in the Eligible category.

Table 4. Student validation

No	Aspect	Total Score	Average	Information
1	Material	658	3.43	Worthy
2	Presentation	527	3.4	Worthy
3	Language	320	3.44	Worthy
4	Benefit	406	3,27	Worthy
	Total	**1891**	**3.38**	**Worthy**

Based on the table above, the average score of the material aspect is 3.43 including in the Eligible category, the average score of the presentation aspect is 3.4 including in the Eligible category, the average score of the language aspect is 3.44 including in the Eligible category and the average score of the benefit aspect is 3.27 including in the Eligible category. The overall average score of 3.38 for the results of the feasibility of learning media based on experimental class students. Based on the feasibility results of the experimental group, it shows that the Interactive Learning Media Based on Articulate Storyline 3 is included in the Feasible category.

At the first meeting, the activity carried out was to check the students' ability to understand the material of the trading company's adjusting journal by conducting learning like a teacher usually by explaining the learning material. After completing the lesson, students were asked to fill out a questionnaire regarding learning motivation that the researchers had prepared for both the control class and the experimental class. Based on the results of the questionnaire, it can be seen that the average score of motivation for control

class students is 69.51 and for the experimental class the motivation score is 67.01. The following data are the results of questionnaires given to the control class and experimental class:

Table 5. Initial motivation score results

No	Class	Number of Students	Average
1	Eksperimental	31	67,01
2	Control	33	69,51
	Total	64	68,28

In the second meeting, learning in the control group was only a repetition of material, namely repeating material that students had not understood in more depth. Giving practice questions is still applied at this second meeting. The goal is for students to be more proficient about the trading company adjustment journal. At the end of the learning process students are asked to fill out the same questionnaire as the previous meeting to find out the difference. In the experimental group, learning was carried out using Articulate Storyline 3 learning media, learning emphasised more on providing material and practice questions about the trade company adjustment journal and students worked on these questions using Articulate Storyline 3 learning media directly. At the end of learning the same as the control group, the experimental group was asked to fill out the same questionnaire as the previous meeting and added by filling out a questionnaire regarding student assessment of the Articulate Storyline 3 learning media that had just been used. The following data are the results of questionnaires given to the control class and experimental class:

Table 6. Final motivation score results

No	Class	Number of Students	Average
1	Eksperimental	31	114,9
2	Control	33	106
	Total	64	110,45

Based on the table above, we can compare the average score of both the experimental class and the control class. At this second meeting the average score for the experimental class was 113.84 and for the control class was 84.66. The following is the increase data for motivation scores for each class group:

Table 7. Average motivation score

No	Class	Meeting 1	Meeting 2	Ascension
1	Eksperimental	67,01	114,9	47,89
2	Control	69,51	106	36,49

The data in the table shows that the control group experienced an increase in scores of 36.49 between before and after. Meanwhile, the average increase in scores before and after using learning media from the experimental group was 47.89. It can be interpreted that the use of Articulate Storyline 3 learning media can help to further increase student learning motivation in accounting lessons for trade company adjustment journals.

The evaluation stage is carried out to determine how the increase in student learning motivation in class XII IPS 4 SMA N 1 Seyegan on the accounting material of the trade company's adjustment journal using the normalised gain (g). The following is data on the improvement of student learning outcomes with the calculation of the normalised gain (g):

Table 8. Data on increasing learning motivation

Eksperimental Group			Control Group		
Interpretation	Frequency	Percentage	Interpretation	Frequency	Percentage
Effective	2	6,45%	Effective	0	0%
Quite Effective	19	61,3%	Quite Effective	3	9,15%%
Less Effective	10	32,25%	Less Effective	22	66,6%
Not Effective	0	0%	Not Effective	8	24,25%
Total	31	100%	Total	33	100%
Average	**0,61**		**Average**	**0,45**	

The data in the table shows that the learning motivation of students in the experimental group has increased learning motivation with an effective category of 2 students (6.45%), a fairly effective category of 19 students (61.3%), and for the less effective category of 10 students (32.25%). The experimental group's average gain score of 0.61 is included in the moderately effective category. Meanwhile, in the control group students had an increase in learning motivation with an effective category of none or 0 students, a fairly effective category of 3 students (9.15%), a less effective category of 22 students (66.6%), and an ineffective category of 8 students (24.25%). The average gain score of the control group of 0.45 is included in the less effective category.

It can be seen from the average gain score that the experimental group has a higher average than the control group. From these results it can be seen that with the same learning model, the provision of facilities in the same school between the control and experimental groups, and the teacher who teaches does not change, but the use of different learning media, where the control class still uses conventional media in learning and the experimental class uses interactive learning media based on Articulate Storyline 3, it can be seen that by using interactive learning media based on Articulate Storyline 3, the experimental group gets

superior learning motivation compared to the control group which is not given learning media treatment. So it can be concluded that using Articulate Storyline 3-based Interactive learning media can increase student learning motivation in accounting subjects for trade company adjustment journals.

Based on the results of the t-test, it is known that the significance value (Sig) is 0.103> 0.05, it can be concluded that the N-Gain variance for the experimental and control classes is the same or homogeneous. In addition, it is also known that the Sig. (2-tailed) is 0.001 < 0.05, thus it can be concluded that there is a significant difference between using interactive learning media based on Articulate Storyline 3 with conventional methods to increase student learning motivation at SMA N 1 Seyegan.

4. CONCLUSION

The following are some of the findings of the Development of Interactive Learning Media Based on Articulate Storyline 3 in Accounting Subjects to Increase Learner Motivation in High Schools developed with the ADDIE development procedure, it can be concluded: (1) Interactive learning media based on Articulate Storyline 3 is an interactive learning media based on Articulate Storyline 3 which is developed by conducting analysis and observation first to find out the problems of students, making products, developing products, validating experts, applying learning media to SMA N 1 Seyegan students. The resulting product obtained a score of 3.66 from the Media Expert which was included in the feasible category, scored 3.47 from the Material Expert which was included in the feasible category, scored 3.65 from the Practitioner Teacher with the feasible category, and 3.38 from the experimental class students which was classified as feasible to use. (2) Interactive Learning Media based on Articulate Storyline 3 to increase student learning motivation in high school is stated to be able to increase student learning motivation. Evidenced by the experimental group's gain score level which has a gain score level of 0.61 including the moderately effective category compared to the control group which has a gain score value of 0.45 which is included in the less effective category. (3) Based on the results of the correlated t test, it is known that the significance value (Sig) is 0.103> 0.05, it can be concluded that the variance of N-Gain for the experimental and control classes is the same or homogeneous. In addition, it is also known that the value of Sig. (2-tailed) is 0.001 < 0.05, thus it can be concluded that there is a significant difference between the use of interactive learning media based on Articulate Storyline 3 with conventional methods to increase student learning motivation at SMA N 1 Seyegan.

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