

The Development of A Teaching Video on the Subject of Creative Product and Entrepreneurship to Increase the Learning Outcomes of Class XI Students at SMK BM Panca Budi Medan

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Abstract. The current state of the COVID-19 pandemic has inevitably led to a pattern of learning that uses information technology and media. This research aimed to describe the development of a teaching video on creative products and entrepreneurship to increase the learning outcomes of class XI students at SMK Panca Budi Medan. This research used Research and Development (R&D) method with 4D type for class XI students at SMK-BM Panca Budi, Medan, Academic Year 2021/2022. The above output of the independent test sample was derived from homogenous data by assuming equal variance, and a significance value (2-tailed) obtained was $0.00 < 0.05$ with statistical tests using the t -test with test results showing $t^{\text{count}} = 30.349 > t^{\text{table}} = 1.680$ with $\alpha = 0.05$ and $df = 44$ or in other words H_0 is rejected, and H_a is accepted.

Keywords: Teaching Video Development, Camtasia-Based, Student Learning Outcomes.

1 Introduction

The process of learning and teaching is constantly evolving and posing new challenges. This is because of the need to adapt to the continuously accelerating development of both technology and information. The dynamic aspects of education, the learning environments, and the drive to succeed all make valuable contributions to the overall level of happiness experienced by students [1]. These findings imply that the growth of student motivation and achievement will accompany the successful implementation of the dynamic components of learning. This will be the case if the dynamic components of learning are correctly implemented. Both the teachers and the students participated in various educational activities. Both parties carried out these activities. It is essential that the relationship between a teacher and a student be fluid and on equal footing with the concept of education. The actions of the teacher constitute teaching, whereas the students' actions constitute learning [2].

The current trend of online learning inspires and stimulates teachers to be creative in their classroom teaching and the lesson plans they provide for their students. Physical distance should no longer be a barrier to education and information exchange in today's world. As a meeting medium between professors and students, facilitating platforms such as ZOOM, Google Class, WebEx, and others, which have been utilized in the past and are now commonplace, are no longer uncommon. Only during this period of social alienation, in which students were compelled to learn in an online environment, was the application Zoom Meeting used [3]. The presence of information technology must be weighed against the capacity of educators to maintain and cultivate learning methods and practices that can usher in a fresh climate inside educational settings. Students can have much fun using IT media, such as gadgets, because they are familiar with these devices. It is very beneficial if the device is used more for learning and obtaining information to improve knowledge rather than being dominated by playing games or consuming information that is not appropriate for the age of the students. Students can have much fun using IT media, such as gadgets, because they are familiar with these devices. As one of the media, they are using gadgets to make videos in English video assignments has excited students because they are involved as actors/actors to practice English as well as directors and editors in making these assignments. This has made using gadgets to make videos in English video assignments a media that has excited students [4]. Because it engages so many of the learner's senses and requires them to perform various actions, this helps the learner better comprehend the core idea of the lesson and remember it for a more extended period.

Only two teachers at SMK Panca Budi Medan occasionally teach virtually, utilizing the lecture technique and PowerPoint. This applies to all of the topics offered at the school. At the same time, some will merely supply the necessary supplies and activities to be completed within a predetermined amount of time. Students are given resources that were obtained from the internet. These materials are offered to them. This results in monotony, and the environment for learning is not participatory. Based on this information, the researchers took the initiative to develop the usage of teaching media, specifically the Camtasia software-based teaching video. In this video, the subject teacher directly provided the curriculum according to the expectations of the students. Because of the situation and conditions brought on by the COVID-19 pandemic, which calls for educators to find a solution that involves online learning and the creation of teaching videos based on Camtasia, this will be very helpful. This is because educators are required to provide teaching materials that have been prepared.

Camtasia offers advantages, namely: Camera, Video Record, and Audio Recording; This piece of software can record the action that occurs on the screen, and it can also make use of a webcam. In addition to these capabilities, it also comes with obvious audio recording capabilities. Camtasia is able to be suggested as a popular piece of software for YouTubers who enjoy creating tutorials from their personal computers because it combines three different activities into one. Can edit videos; Camtasia Studio also allows video editing for recorded content, and users have the ability to add up to hundreds of edit screens for any type of content, be it video, audio, or text. Aside from that, the editing tools are also fairly comprehensive, containing a variety of different sorts of standard features. Of course, in addition to their benefits, these tools also have several drawbacks, such as the following: Camtasia's feature set is lacking in comparison to that of Adobe Premiere; nonetheless, the functions included in Camtasia Studio itself are pretty typical. The software's activation can

still be bypassed using cracks and patches. Camtasia is not as feature-rich as Adobe Premiere. The creation of teaching media that uses instructional videos is being done to make it simpler for instructors to generate teaching materials in accordance with the curriculum, as well as for teachers of disciplines that are relevant to the curriculum.

2 Literature review

Teaching and learning are complementary endeavors that require the participation of both students and instructors. The learning process is a process that contains a series of implementations by teachers and students based on reciprocal relationships that take place in educational situations to achieve certain goals. The learning process is a process that contains a series of implementations by teachers and students based on reciprocal relationships [5]. The first prerequisite for the educational process is for students and teachers to maintain some form of interaction or reciprocal relationship. The term "learning" refers to the process by which students engage in activities in an educational setting, such as interacting with teachers or other learning tools. The term "learning" is derived from the root word "learn," which is then modified by adding the prefix "le" and the suffix "ing." [6]. The phases of change in all human behavior that are generally permanent due to experience and interaction with the environment and involve cognitive processes are referred to as learning. Learning can be defined as the stages of change in all individual behavior. Another point of view about learning was presented, explaining that teaching is an effort to educate children. In this view, implicitly included in the teaching process are efforts to select, determine, and create teaching methods to achieve the intended results in teaching [7].

There are two types of participants involved in learning: students and learners. Learners are subjects (teachers) who "learn" students, whereas students are subjects who "learn" learners (students). Learning refers to altering behavior (a shift in behavior) as a result of new experiences and repeated activities [8]. Experimentation and practice are actions teachers engage in while students engage in these activities with one another as learners. Alterations in conduct might take either a mental or a physical form. Students are encouraged to take an active role in their education through the use of an educational strategy called self-learning. In the meantime, instructional design refers to the process through which traditional teachers develop a teaching program, also referred to as teaching preparation. It is possible to draw the following conclusion from the various definitions of learning that have been presented above: learning can be understood as a change in the behavior of students that occurs as a direct result of interactions between those students and educators or learning resources in an environment that is designed to meet the needs of those students.

The following is a list of the factors that are known to influence learning outcomes:

2.1 Internal factor

- **Physiological Factors.** In general, physiological conditions, such as excellent health, are not in a state of fatigue or exhaustion. Sometimes things like this can affect student learning outcomes.

- Psychological Factors. In this factor, the psychology or soul, as well as the mentality of each student, is different, but this factor also greatly affects the learning outcomes received by students.

2.2 External Factors

- Family Factor. This family factor is very influential because the child gets the first education in the family. This family factor can also affect the results obtained by the students.
- Community Factors. Community factors are factors whose existence and use are designed in accordance with the expected learning outcomes [9].

The role of the media in the teaching and learning process is very important because the media can facilitate educators and students in achieving their goals. Therefore, some things need to be considered and determined first before delivering the subject matter by educators in the selection of learning media as follows:

- Define goals. The point is the media that will be used per the objectives set or formulated from the material to be conveyed using the media.
- Determine effectiveness. The point is that in choosing media, educators must be able to choose which media to use and whether the media is effective or not to be used to deliver the subject matter in accordance with the learning objectives that have been formulated.
- They are measuring the ability factor of educators and students. The point is that in choosing and using media, educators must consider whether educators can convey material using the media, and the material to be delivered must also be in accordance with students' abilities according to their thinking patterns.
- Considering the flexibility factor (flexibility) durable with reality. The point is that educators in choosing media must consider flexibility in the sense that the media can be used in learning all situations, and durable, not easily damaged and harmless when used, can also take advantage of the media around. e. Pay attention to the media availability factor because every school is not the same in providing various learning media needed in teaching and learning activities. Therefore, educators can take advantage of the media around them. Besides that, educators can also make the media themselves (if the media is easily accessible or can be made yourself), buy (if the funds are sufficient), and others.
- Determine the suitability factor or balance between benefits and costs. The point is that in choosing media, it must be considered whether the benefits derived from learning by using the media and the number of costs incurred for the media must be balanced or in accordance with the benefits obtained.
- Determine the objectivity factor. The point is that choosing the method is not only the teacher's will, pleasure, and needs. However, based on the needs of the learning system. Therefore, educators can ask or ask for input from students. Because if the media used is liked by students, students will easily understand and accept the material presented by the educator.

- In accordance with the teaching program. This means that the media that will be used in delivering learning must follow the teaching program and be in accordance with the applicable curriculum.
- Determine program goals. The point is that the media to be used must be matched with the thinking abilities of students in terms of both. Language, the symbols used, the method and speed, and time of use

Learning using video can display audio and visuals at the same time. The government and teachers have used video as a medium and source of learning [10]. Such as using educational videos on educational TV sites, Youtube, e-learning, etc. One of the teaching media that uses video is Camtasia Studio. The Camtasia Studio is software developed by a TechSmith corporation specifically in multimedia [11]. Camtasia Studio is an application program for recording, editing, and publishing video presentations on a computer screen.

Camtasia Studio is one of the software developed by TechSmith Corporation, which is currently in version 8.4. Camtasia is used to record all activities on the desktop computer. This software can also be used to create multimedia and e-learning-based learning media by making video tutorials or training and making video presentations known as screencasts. Camtasia Studio is software that can record everything that is going on on your monitor screen [12]. This software is commonly used in making video tutorials and video presentations. Easy use and satisfactory results are one of the recommended software for use in learning. Process learning by using video tutorial media by teachers who utilize Camtasia Studio software is expected to be able to bind and increase students' attention and activity in learning.

3 Method

This research was research and development because, in this research, teaching media in the form of video based on Camtasia Studio was developed in the subjects of Creative Products and Entrepreneurship for class XI students at SMK-BM Panca Budi, Medan, for the Academic Year 2021/2022. The target audience for these teaching materials was students in the 11th grade. The SMK Business Management Unit at the Panca Budi University Foundation in Medan served as the research site (SMK-BM). The time spent conducting the research spanned two months, specifically from February 2022 to April 2022. The course outline for the even semester of the academic year 2021/2022, followed by the student's chosen learning materials, may be found here. All 66 pupils in class XI SMK-BM participated in the research as part of the population. The researchers collaborated with one teacher who taught creative products and entrepreneurship subjects. This teacher played the role of a teacher in the learning videos and provided information regarding students' condition during the implementation of Camtasia Studio teaching videos and how well they understood the concepts of Creative and Creative Products subjects. Students in the eleventh grade at SMK-BM in Panca Budi will learn about entrepreneurship. The class that participated in the experiment was a member of the XI-AP 1 SMK-BM Panca Budi class, and the class that served as the control was a member of the XI-AP 2 SMK-BM Panca Budi class.

This research was a research and development research using the Four-D model developed by Thiagarajan and Semmel [13]. The Four-D model is divided into four distinct phases: the

Stage of Definition, the Design Phase, the Development Phase, and the Evaluation Phase (Disseminate). The following flowchart explains how video media came to be used in the classroom to teach subjects such as creative products and entrepreneurship. The chart focuses on the concept of understanding entrepreneurship.

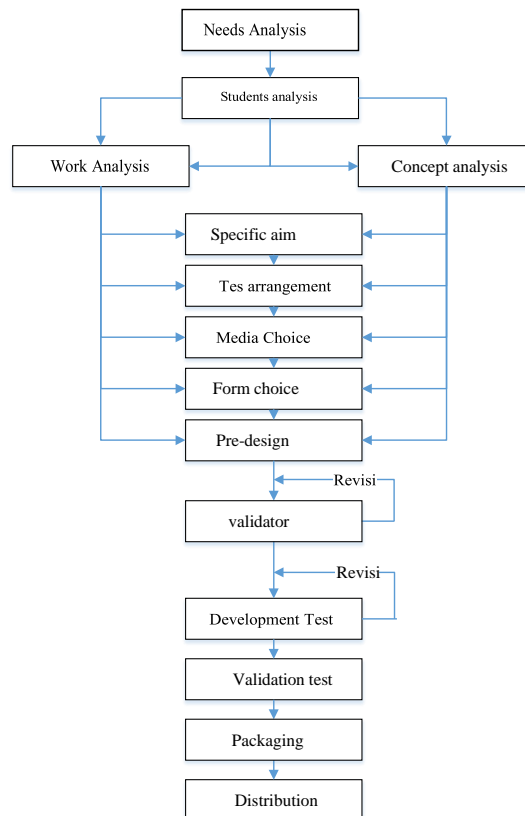


Fig. 1. Teaching video media development flowchart

4 Result and discussion

4.1 Product development research results

Based on the format of the creative and entrepreneurial product learning media that the researchers have prepared, it is found that there are several differences in the steps of the teaching and learning process offered in the media with the teaching and learning process carried out by the teacher which is carried out at the end of each learning activity to determine the extent to which students understand the material. The Camtasia Studio-based teaching video learning media that is arranged is also exciting and is equipped with several images adapted to the subject matter. The stages in product testing. Teaching video media based on Camtasia Studio can be seen as shown in figure 2.

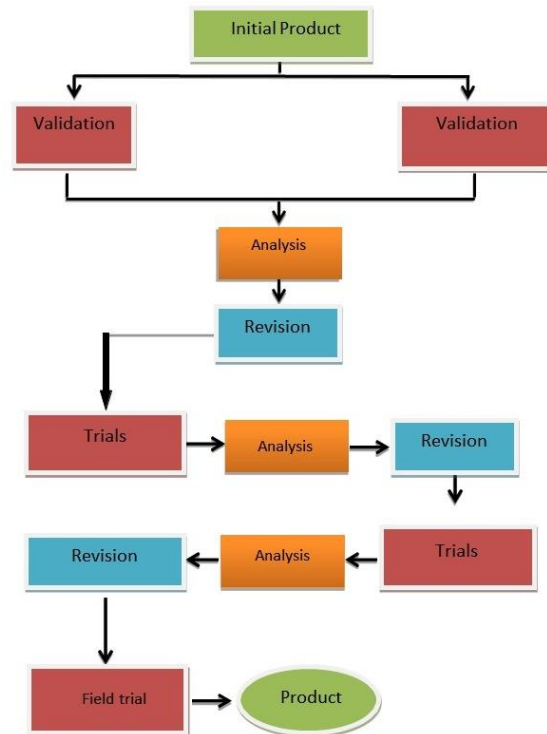


Fig. 2. Product Trial Flow Development of teaching videos based on Camtasia Studio

According to the results of limited field trials carried out on 23 students from class XI AP3 at SMK Panca Budi 2 Medan, the generated learning media did not receive any comments or improvements from the students. The improvement that has been made to media learning is beneficial because it piques pupils' attention in the learning process. Students' interest in studying English can be stimulated by using technology-based learning resources, such as videos, in English classrooms, which also helps improve the learning process [14]. This intriguing and cutting-edge medium is expected to increase student participation in the process. The purpose of this study is to describe students' reactions regarding their involvement in the use of English Learning videos made using Camtasia Studio for students in the second grade of primary school. The gathering of data is carried out using the methodology of observations, interviews, and questionnaires filled out by teachers. According to the findings, incorporating technology-based media into a classroom setting was an excellent way to boost students' motivation levels and active learning, leading to an overall improvement in the quality of teaching and learning process quality. The students and instructors responded positively to the media, and they classified it as "Very Good" media, which meant that they found it fascinating and that it addressed the needs of second graders. In addition, it has been suggested for the sake of future research that learning should take place in a variety of settings.

4.2 Research hypothesis test

The validity test was conducted on 23 students in class XI AP3 SMK BM Panca Budi 2 Medan who were not included in the research respondents. It is said to be valid on the items from each of the variables studied if $r^{\text{count}} > r^{\text{table}}$ where $N = 23$ so that $r^{\text{table}} = 0.413$ is obtained. Based on the results of the validity test of the learning outcomes variable, it is known that the questions for the learning outcomes variable were submitted to 25 multiple choice questions to 23 respondents. 1 with $r^{\text{count}} > r^{\text{table}}$ or $0.666 > 0.413$ is declared valid. Therefore, the number of item items that were declared valid was 21 items. The problem formulation in this study can be analyzed and interpreted by looking at the data on learning outcomes taught using teaching video learning media developed in the classroom. Experiment without using teaching video learning media in the control class. Descriptive data on the value of learning outcomes obtained the lowest score (Xmin), the highest score (Xmax), the average value (mean), and the std. Deviation values in the experimental and control classes can be seen in Table 1.

Table 1. Descriptive data of student statistics in experiment class and control class.

	N	Minimum	Maximum	Mean	Std. Deviation
Experiment pretest	23	75	81	77,70	1,363
Experiment posttest	23	89	95	91,78	1,704
Control pretest	23	75	79	77,35	1,152
Control posttest	23	85	89	86,78	1,204
Valid N (listwise)	23				

From table 1 above, it is known that the minimum score, maximum score, mean value, and std. Deviation has a difference. In the experimental class, the minimum and maximum scores were higher than in the control class. It can be seen that the experimental class using the developed teaching video learning media is higher than the student learning outcomes in the control class without using the teaching video learning media. The results show that with the implementation of teaching video learning media in the learning process, the average score is 91.78, which is higher than the student learning outcomes in the control class and the average score is 86.

Hypothesis testing is carried out to prove the established hypothesis's truth so that information is obtained on whether the hypothesis designed in this study was accepted or not. The results of the assessments submitted by several experts and student trials can be seen in table 2 below.

Table 2. The results of the assessments submitted by several experts and student trials

Category	Score Average (%)	Criteria
Material validation	82%	Very Appropriate
Media validation	90%	Very Appropriate
Individual test	85%	Very Appropriate
Small Group Test	86%	Very Appropriate
Field Test	89%	Very Appropriate
<i>Average</i>	<i>86,4%</i>	<i>Very Appropriate</i>

Based on the table of the results of the feasibility study on the developed teaching video learning media, the percentage of the average overall score of 86.4% is included in the "very feasible" category, which means that the teaching video learning media that has been developed is proven to be suitable for use in the teaching and learning process. Sholeh et al. (2018) in the current era of information technology development, teachers must develop teaching materials that utilize information technology. This application is developed based on video and can be equipped with more attractive displays. To increase teachers' role in developing teaching materials, at SMK Muhammadiyah 2 Muntilan, training has been held to make teaching materials using the Camtasia Studio application. The training results produce teaching materials and are ready to be given to students via flash disk or uploaded to the school's e-learning.

The following Statistics Group is to see how big the difference is in student learning outcomes from posttest scores using teaching video learning media with posttest scores without teaching video learning media. Based on the calculation of the statistical group above, the student's learning outcomes in classes that use learning video learning media get an average value of 91.78 is greater than the class that does not use teaching video learning media obtaining an average value of 77.74. Therefore, it can lock the use of creative and effective product learning video learning media.

5 Conclusions

Based on the formulation, objectives, results, and discussion in the research on the development of teaching video learning media for the subject of creative products and entrepreneurship class XI AP SMK BM Panca Budi 2 Medan, which was stated earlier, it can be concluded as follows: (1) The Camtasia Studio-based learning media product for creative products and entrepreneurship with materials applying marketing promotion media in class XI AP SMK BM Panca Budi 2 Medan meets the requirements and is suitable for use based on expert validation of the material including the feasibility of content, and presentation of media material Teaching video learning for creative products and entrepreneurship subjects obtained an average of 82% on the very feasible criteria and the validation of media experts with aspects of media quality and layout obtained an average of 90% on the very feasible criteria. (2) The use of Camtasia Studio-based teaching video learning media on creative products and entrepreneurship subjects is effective in improving student learning outcomes who are taught using video learning media for creative products and entrepreneurship subjects that are developed higher with an average of 91.78 of student learning outcomes those who were taught without video learning media for creative products and entrepreneurship subjects had an average of 77.74.

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