

## **Influence Of Multimedia-Based Camtasia Studio On Students Civic Education Learning results Of Gradev Nasrani 2 Elementaryschool Medan**

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**Abstract:** *This research aims to know the influence of multimedia-based camtasia studio to civic education studies learning results. This type of research is quasi experiment. The design used in this study was a pretest-posttest control group design. The instruments used in this research is the instrument the test results of the study as many as 25 in the form of multiple choice question. Data analysis techniques using test-t (T-Test Sample Independent) assisted applications SPSS 21.0 for windows. Research results and hypothesis testing concluded that: (1) the average value of student learning outcomes post-test obtained experimental class of 80.30 and average value of the results of the study on the class control of 76.50 (2) there is an influence on using of multimedia-based Camtasia Studio to Civic education students learning results showed by sig.  $0.013 < 0.05$ .*

**Keywords:** *Learning Media, Multimedia Camtasia Studio, Learning Result*

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### **I. Introduction**

Learning is an active process of students is the process of reacting to all the situations around the students. Teaching is an activity of organizing and organizing the environment so as to encourage students to learn [1]. The problem that often arises in the learning process is how a teacher develops, creates and controls situations that allow students to learn.

Teachers are required to be able to use the tools that can be provided by the school, and do not rule out that the tools are in accordance with the development and demands of the times. In the learning process teachers should at least be able to use cheap and efficient tools although simple but a necessity in an effort to achieve goals rather than learning. Teachers are also required to be able to develop the skills to make learning media if not available for the purpose of learning can be achieved well.

Media is one component in learning activities. Media is a component of a learning resource or physical vehicle that contains instructional materials in a student environment that can stimulate students to learn [2]. The use of media at the elementary school level is important, in view that the age of elementary students are included in the concrete operational phase. This is as Piaget explained, that the stage of cognitive development of elementary school students, i.e. 6 to 11 years is a concrete operational stage. [3] Piaget considered the concrete stage a major turning point in the child's cognitive development because it marks the beginning of logical or operational thought. This means the child can work things out internally in their head (rather than physically try things out in the real world). Children can conserve number (age 6), mass (age 7), and weight (age 9). Conservation is the understanding that something stays the same in quantity even though its appearance changes. At this stage students have been able to form ideas based on thoughts that appear on objects or logical events around it so that delivery of materials will be more effective if assisted by a medium that can hone the level of liveliness and student thinking independently.

The media also helps students in shaping a learning experience. Edgar Dale, known as cone of experience, states that the introduction of Cone of Experience demonstrated a progression from direct, first-hand experience to pictorial representation and on to purely abstract, symbolic expression [4]. Media attempted prepared to accommodate students' literacy and supports the concept of learning fun so that students feel comfortable when learning [5].

Elementary School Nasrani 2 Medan is one of the elementary schools managed by the public or private that has begun to implement the curriculum 2013 and already has adequate learning support facilities both from libraries and other supporting facilities such as internet (Wi-Fi). Nevertheless the learning media used in Nasrani 2 Elementary School Medan is still very limited and less varied. Media commonly used in Nasrani 2 Elementary School Medan, among others: globe, map, atlas, torso, pictures and others. The media often used by teachers in Nasrani 2 Elementary School Medan in learning is a simple picture media obtained from the internet and print

out to be used as learning media, such as pictures of heroes, maps, animals, plants and other pictures. Limitations of supporting media resulted in the students' learning process is not maximal and less attention to students.

Principal of Nasrani 2 Elementary School Medan adds another reason for the neglect of media usage that is not yet used by computer and software that accompany it maximally as a medium of learning. The existing computer is only used as a tool to learn computer programs. The teachers should be able to use the computer and accompanying software as a fun learning medium and can be used in explaining abstract things to be more concrete so that they are more easily understood by students. The use of media in learning is to accelerate the learning process and assist students in an effort to understand the material presented by Master in the class [6]. Learning media one that can be used by teachers in an effort to improve students learning results is a multimedia-based Camtasia Studio. Camtasia is one form of programming that is used to recording all activities on the monitor screen (desktop) and can also be inserted sound [7]. The output of this program can be video with avi or camrec extension. Media Camtasia Studio is a media technology solution for teachers in the learning process. This media is classified as audio-visual that can increase the interest of students to see, hear and know the material presented [8]; [9].

## **II. Literature**

### **2.1. Learning Media**

Learning Media is a component of a learning resource or physical vehicle that contains instructional materials within the student's environment that can stimulate students to study. More specifically that the media in the teaching and learning process tends to be interpreted as graphic, photographic or electronic tools to capture, process and rearrange visual and verbal information. [10] The media used in learning has a sense as: (1) Messenger technology that can be utilized for learning purposes (2) medium of communication to convey the content / learning materials such as books, movies, videos, slides and etc., and (3) Medium of communication in print and hearing, including hardware technology [11]. Learning process is a process of communication and takes place in a system, and then the learning media occupies an important position as one component of the learning system.

### **2.2. Multimedia Camtasia Studio**

Camtasia studio is software developed by TechSmith Corporation specialized in multimedia field. This software can be used to create multimedia-based learning media and e-learning. Camtasia studio is an application program packaged for recording, editing, and publishing in creating video presentations on a computer screen. Camtasia studio is software to capture monitor screen display, with added audio and video can also be used to record PowerPoint presentation results into video format.

Camtasia Studio can help and train us in conveying and interacting with our audience. Camtasia Studio has the ability to record sounds on the monitor screen including activities on the desktop, PowerPoint presentations, voice narration, and webcam video [12]. Camtasia Studio is one of the complete solutions for creating professional video and desktop PC activity quickly. Anyone can record and create a full lesson of motion videos or presentations, with certainty, and publish on the format of their choice [13]. Usefulness of Camtasia Studio software, as follows:

1) Recording a PowerPoint Presentation.

With camtasia studio PowerPoint add-in, we can record and publish presentations directly which include timeliness of slides, animations, and voice prompts.

2) Training Video

Technically, camtasia video studio placement through online can reduce costs because customers can access answers from the same questions that are frequently called and appear every day.

3) Product Demo

Companies use camtasia video studios to increase sales by helping consumers know how to understand the product or service of the company.

4) Lesson courses or online lectures

Online video presentation and presentation placements can remove the range of distance and time for faculty and students or students. For example, Tom is a professor of ICT at the University of Akron he uses camtasia studios to make college lessons. The course can be accessed for 24 hours / day so they can study anytime and wherever they are.

### **2.3. Learning Result**

The essence of learning activity is a revolution that occurs within each individual. This revolution will affect the mindset of the individual in doing and acting. This revolution is the result of the learning experience. Learning results are in part due to teacher action, an achievement of teaching objectives. On the other side,

learning results are an improvement in students' mental ability [14]. Each teaching and learning process of its success is measured by how far the learning outcomes achieved by students. These learning results are usually expressed in terms of numbers, or letters obtained from and after the learning activities take place [15].

### III. Research Methodology

This research was held in Nasrani 2 Elementary School Medan. It was held on the second semester of academic year 2016/2017. The population of this research was all student of V grade that consisted of 2 classes. The sample of research was determined by total sampling technique. One class is taught by using Multimedia-based Camtasia Studio (experiment class) and one other class is learned without using media (control class). This study included a quasi-experimental type of research. There are two groups of samples studied namely the experimental group and the control group. The design used in this research is pretest-posttest control group design. The instrument used in this research is the test of Civic learning result of 25 questions in the form of multiple choice. Data analysis techniques using the t-test (Independent Samples T-Test) assisted SPSS 21.0 application for windows.

### IV. Results

The results obtained in this research, student learning result in classes taught with multimedia-based camtasiastudio and conventional approach. After the data collected, then tested the hypothesis. Students data in the experimental class and control class are shown in Table 1.

**Table 1.** Experiment Class and Control Class Value Data

	Pre-test Experiment Class	Post-test Eksperimen Class	Pre-testControl Class	Post-testControl Class
<b>N</b>	40	40	40	40
<b>Mean</b>	47.40	80.30	44.70	76.50
<b>Median</b>	46.00	80.00	46.00	76.00
<b>Mode</b>	44	84	48	76
<b>Std. Deviation</b>	9.695	6.922	9.751	6.417
<b>Variance</b>	93.990	47.908	95.087	41.179
<b>Minimum</b>	28	64	24	64
<b>Maximum</b>	68	92	64	92
<b>Sum</b>	1896	3212	1788	3060

Based on table 1 in the results can be pre-test students experimental class taught by multimedia-based Camtasia Studio obtained an average value of 47.40 with standard deviation 9.695 and the largest value 68 and the smallest value 28. for post-test results obtained an average value of 80.30 with a standard deviation of 6.922 and the largest value of 92 and the smallest 64. In the control class, students' pre-test results obtained an average value of 44.70 with a standard deviation of 9.751 and the largest value 64 and the smallest value 24. While the post-test results obtained an average value of 76.50 with a standard deviation of 6.417 and biggest value 92 and smallest value 64.

After collecting experimental and control class data, then normality test and homogeneity test assisted by application of SPSS 21.0 for windows. For normality test results are shown in Table 2 and homogeneity test of both classes are shown in Table 3. Testing of normality of pre-test and post-test data was analyzed with assisted application of SPSS 21.0 for windows One Sample Kolmogorov-Smirnov Test with provision if value of  $Asymp.sig. > 0,05$  then the data declared normal distribution.

**Table 2.** Data Normality Test Results(One Sample Kolmogorov-Smirnov Test)

	Pre-test Experiment	Post-test Experiment	Pre-test Control	Post-test Control
N	40	40	40	40
Normal Parameters <sup>a</sup> Mean	47.40	80.30	44.70	76.50
Std. Deviation	9.695	6.922	9.751	6.417
Most Extreme Differences Absolute	.137	.208	.132	.131
Positive	.137	.146	.077	.131
Negative	-.088	-.208	-.132	-.119
Kolmogorov-Smirnov Z	.867	1.314	.838	.829
Asymp. Sig. (2-tailed)	.440	.063	.484	.498

a. Test distribution is Normal.

Based on the data in Table 2 above, it can be explained that the test results of normality of pretest data and second class postes data both experiment and control class are obtained by  $Asymp.Sig > 0,05$ . Thus it is concluded that the pretest and posttest data of the students of the two sample groups in both experimental and control class have distribution of normal distributed data.

After the normality test, it is continued for homogeneity test with assisted application of SPSS 21.0 for windows. The homogeneity test of the data was analyzed using Levene's Test with the provision if the sig value.  $> 0.05$  then the sample group is said to have a homogeneous variance or derived from the same population. For homogeneity test results are shown in Table 3.

**Table 3.** Data Homogeneity Test Results (*Levene's Test*)

		Levene Statistic	df1	df2	Sig.
Pre-test	Based on Mean	.006	1	78	.940
Post-test	Based on Mean	.019	1	78	.892

Based on Table 4 above, it can be explained that the results of homogeneity testing of data using Levene's Test approach based on mean (based on mean), for pretest data from both groups of samples obtained sig value. of  $0.940 > 0.05$  and for the postes data from both groups the sample obtained sig.value of  $0.892 > 0.05$ . Thus it can be concluded that based on pretest data and postes data, both groups of samples have homogeneous variance or come from a homogeneous population.

After the data is declared normal and homogeneous, it can be tested hypothesis. Hypothesis testing was done on the post-test data of both groups of samples by using Independent Samples T-Test assisted application SPSS 21.0 for windows, under the condition if the value of sig.  $> 0.05$  then the hypothesis is accepted. Hypothesis test results are shown in Table 4.

**Table 4.** Hasil Pengujian Hipotesis (*Independet Sampel T-Test*)

		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Postes	Equal variances assumed	2.546	78	.013	3.800	1.492

Based on the data in Table 5 above, it can be explained that the Independent Sample Test T-Test with the application of SPSS 21.0 for windows with the variance of the two sample groups equal variances assumed obtained the value of sig value. of  $0.013$  at the level of significance or  $\alpha = 0.05$ . Because the sig value.  $0.013 < 0.05$  then the hypothesis proposed in this study accepted and tested the truth statistically on the level of significance  $\alpha = 0.05$ . Thus it is concluded that there is the influence of the use of multimedia-based Camtasia Studio on student learning results in V grade Nasrani 2 Elementary School Medan.

## V. Conclusion

Based on the research result we can take some conclusions such as (1) Civics education learning results of experimental class students after being taught by using multimedia-based Camtasia Studio in grade V Nasrani 2 Elementary School Medan obtained the average postes value of  $80.30$ . (2) Learning results of Civics education students control class after being taught without using media in grade V Nasrani 2 Elementary School Medan obtained the average postes value of  $76.50$ . (3) There is influence of learning by using multimedia-based Camtasia Studio student learning results in grade V Nasrani 2 Elementary School Medan which proved from sig value.  $0.013 < 0.05$  at sig level.  $0.05$ . Students' learning results in experimental class taught with multimedia-based Camtasia Studio ( $80.30$ ) were higher than those of control-grade Civics students taught without using media ( $76.50$ ).

## Reference

- [1]. Sanjaya, W., (2009). Strategi Pembelajaran Berorientasi Standar Proses Pendidikan. Jakarta: Kencana Prenada Media Group.
- [2]. Arsyad, A., (2010). Media Pembelajaran. Jakarta: Rajawali Pers.
- [3]. Piaget, Jean., (1985). The Equilibration of Cognitive Structures : The Central Problem of Intellectual Development, University of Chicago Press, Chicago
- [4]. Dale, Edgar., (1969). Audio Visual Methods in Teaching. New York: Holt, Rinehart and Winston Inc. The Dryden Press
- [5]. Hamalik, O. 2008. Proses Belajar Mengajar. Jakarta: Bumi Aksara
- [6]. Anwariningsih, H.S & Ernawati., (2013). Development of Interactive Media for ICT Learning at Elementary School Based on Student Self Learning. Journal of Education and Learning. 7. (2) .121-128.
- [7]. Power, J.L., (2011). Training 2.0-Library Assistants in the age of information. Journal Access Services. 8. 69-79. ISSN 1536-7967
- [8]. Chaney, H.B., et.al. (2013). Using Screen Video Capture Software to Aide and Inform Cognitive Interviewing. Journal of Qual Quant. 47. 2529 – 2537

- [9]. Bauk,S&Radlinger., (2013). Teaching ECDIS by Camtasia Studio: Making the Content More Engaging. The International Journal on Marine Navigation and Safety of Sea Transportation. 7. (3). 375-380
- [10]. Arsyad, A., (2010). Media Pembelajaran. Jakarta: Rajawali Pers.
- [11]. Susilana, R. dan Riyana, C. 2008. Media Pembelajaran: Hakikat, Pengembangan, Pemanfaatan, dan Penilaian. Bandung: Wacana Prima.
- [12]. Aripin. 2009. Step by step membuat video tutorial menggunakan Camtasia Studio. Bandung: Oase Media.
- [13]. TechSmit. 2006. Camtasia Studio 4.0 Help File E-Book. USA: Techsmit Corporation.
- [14]. Dimiyati&Mudjiono. 2006. Belajar dan Pembelajaran Jakarta: Rineka Cipta.
- [15]. Arikunto, S. (2001). Dasar-dasar Evaluasi Pendidikan. Jakarta: Bina Aksara.

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