

STKIP PGRI TULUNGAGUNG

PROCEEDING OF INTERNATIONAL SEMINAR EDUCATION FOR NATION CHARACTER BUILDING at STKIP PGRI Tulungagung January 2015

Editors: Supriadi Yepi Sedya Purwananti Ajar Dirgantoro

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INTERNATIONAL SEMINAR STKIP PGRI TULUNGAGUNG
Proceeding of International Seminar Education for Nation Character Building

@ STKIP PGRI Tulungagung 2015

These proceeding contain the full text of paper and talks presented in the International Seminar "Education for Nation Character Building" at STKIP PGRI Tulungagung on January 24th, 2015

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PREFACE

These proceedings consist of full text of papers and talks that have been presented in international senset. The seminar was held by Institute of Teacher Training and Education (STKIP) PGRI Tulungagung Junuary 24°, 2015. The Institution cooperated with a well known university in Indonesia and some senset universities. This international seminar was a result of the hard working of the committee and the collaboration of the speakers.

The seminar would not have been possible without the time and energy put forth by the invited peakers. The invited keynote speakers in this seminar are Prof. DR. I Nyoman Sudana Degeng, M.Pd. Scate University of Malang, Indonesia), Prof. DR. Muhammad Faisal A. Ghani (Malaya University, Malaysia), and Chalotte A. Blackburn (USA). The four keynotes speakers deliver the material about backing students character through education.

The main theme of the seminar is education for nation characters building. There are three subdiences presented in this seminar: 1) Educational innovation to develop dignified nation; 2) The importance of character education in multicultural nation; 3) The implementation of character education in teaching and learning process.

We would like to thank to all of the speakers and participants who sent articles and presented them. Deeply thanks also delivered to the Rector of STKIP PGRI Tulungagung who has given opportunity and supports in all part of the activities so that this seminar could be done fruitfully. Hopefully this seminar can give a meaningful experience and contribution to all speakers and participants. We do apologize for the inconvenient that may be felt.

Tulungagung, March 20th 2015

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THE EFFECT OF UTILIZATION OF MACROMEDIA FLASH AND POWER POINT AS WELL AS THE LEARNING MEDIA MOTIVATION AGAINST LEARNING OUTCOMES SUBJECT ICT AT SMK PGRI 1 AND SMK PGRI 3 JOMBANG

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ABSTRACT

The purpose of learning is done in schools in general is to transfer knowledge in the form of knowledge and skills to students through a variety of processes. The learning process is done by a variety of methods to achieve these goals are not always suitable for all students. It could be because the educational background of students, study habits, interests, facilities, learning environment, teachers' teaching methods and so we. Use a variety of instructional media, one of which is the use of Macromedia Flash MX and media power point is expected to increase learning motivation, so that student learning outcomes can be improved. Formulation of the problem in this study: 1). Are there differences in learning outcomes between students who take advantage of ICT media and software Power point groups of students who use Macromedia Flash MX? 2). Are there differences in ICT learning outcomes between the groups of students who have a high learning motivation and the group of students who have a low learning motivation in the learning of ICT(3). Is there a media interaction utilizing Macromedia Flash MX and software power point, as a medium of learning and motivation toward learning outcomes ICT? This type of research used in this research is experimental research, which in this study provide treatment to a group of researchers studying the use of Macromedia Flash software media utilization and power point as a medium of learning in each of the different study groups, with the aim to determine the differences in learning outcomes and students' motivation ICT field of study. The results of this study concluded: (1) There are differences in learning untcomes between students who utilize ICT Macromedia Flash MX software media and groups of students who are Power Point software. (2) There is a difference between the ICT learning outcomes of students who have a high learning motivation and student groups which has a low learning motivation in learning ICT. (3) There is a media interaction utilizing Macromedia Flash MX and software power point, as a medium of learning and metivation toward learning automes ICT.

Keywords: Learning Media, Macromedia Flash MX, Microsoft Power Point,

A. INTRODUCTION

In the learning process, there are several components, two of which are teachers and students. In order for successful learning process, teachers should be active, such as in terms of encouraging students to actively learn and provide adequate learning experience to the students. According to Winkel (2008), "learning taker place in the classroom, can be found several components that together embody the process. These components include didactic procedures, instructional media, grouping students and subject matter. Role in guiding basically didactic participate in the procedure." Didactic procedure refers to the activities of teachers in managing learning in the classroom. To achieve this success, in addition must fully understand the material being taught. Teachers are also required to know the exact position of the student's knowledge prior to attending a particular lesson.

Curriculum developed in Indonesia today is Education Unit Level Curriculum "Kurikulum Tingkat Satuan Pendidikan" (KTSP). KTSP is operational curriculum prepared by and implemented in each educational unit. KTSP consists of unit level education objectives, structure and content of education level curriculum, aducational calendar, and syllabus. However, there are some schools that still implement Curriculum 2006 at Unit Level Curriculum (KTSP), one of which is a school that will be studied, namely SMK KGRI I Jombang.

In the learning process based KTSP, learning access is measured based on the achievement of pecified competencies since the beginning of the tarning activities. So that all those who participated etively in the learning process (in this case radents and teachers) have to know the direction of learning. Both sides need to work together in such a way to support each other so as to enable the achievement of the defined competencies onvincingly and to carry out the teaching and arming activities with necessary steps in order to the goals to be achieved. The thing to do is to use tasching and learning strategies 'strategi belajar tengajar' (SBM) are appropriate for the subject latter presented.

The purpose of learning is done in schools general is to transfer knowledge in the form of nowledge and skills to students through a variety f processes. The learning process done by a variety f methods to achieve these goals is not always atable for all students. It could be because the facational background of students, study habits, terests, facilities, learning environment, teachers' aching methods and so on.

Learning methods are commonly conducted the teacher is lecturing. In this method the ancentration of the students sometimes split th other things. As a result the students do not aderstand the subject matter, as well as subjects of Computer Skills and Information Management (ICT), where the limitations of school-owned computer lab make ICT learning often begins with a lecture with duration longer than the methods of practice. Not a few students feel tired and bored to learn, students simply memorize without practice to develop the concept. This can make student learning outcomes decreased.

Basic competencies will be achieved if students do learning experience. The learning experience is a physical and mental activity of the student to interact with the teaching materials. Furthermore learning experience includes life skills that should be possessed by the students. Life skills are skills that one has to boildly face the problems of life and natural life without feeling depressed, then proactively and creatively search for and find a solution so as to cope.

Use a variety of instructional media, one of which is the use of media power point and Macromedia Flash MX is expected to increase learning motivation, so that student learning outcomes can be improved.

Microsoft develops one program (software) that can be used as a device for presenting the material to an audience, including in the learning process in schools, namely Microsoft Power Point. The program is in addition to the presentation, it also provides various facilities for creating, processing, and audio or visual files input. Limitations in the creative and visual processing can be solved by integrating with other programs. The creation and processing of other programs and then inputted into the program to be processed and presented.

Learning to use computer animation also provides an opportunity for students to learn dynamically and interactively. One of the most used in the software environment of learning is learner's performant assessment. Although the principles of learner's performant assessment unchanged when applied to the learning software, there is a learning environment is a significant difference from the conventional learning model. Learning software environment creates a more intensive assessment, i.e. when technology improves the

efficiency of environmental assessment in the learning software. Many of the benefits derived from the use of computer media as a learning tool. Computers (micro) can be a medium of instruction that can visualize a variety of facts, skills, concepts and computer also displays moving images in accordance with its requirements. The use of interactive computer with the user is a computer program can display a diagram or picture to be designed to suit the learner's response. In addition, the use of computers can be designed so that can interact with the user. Computers in addition to creating an effective learning climate for students who slow (slow learner), but also can stimulate the effectiveness of learning for students who are faster (fast learner).

The advantages of the use of this software are that it can be used to visualize the simulation and animation to create lifelike images. In addition, power point and Macromedia Flash MX also allows creating an interactive movie where the user can use the keyboard or mouse to interact. Learning to use Macromedia Flash MX as outlined in the form of an interactive CD, and learning through power point presentation is expected to be able motivate students to learn, students are more acts and creative because macromedia utilization Flas MX and power point presentation of the materican show an interesting and informative.

B. METHOD

This type of research used in this study experimental research, which in this study provis treatment to a group of researchers studying it use of Macromedia Flash software media utilization and power point as a medium of learning at a control group that did not use the software macromedia flash media utilization and power points as a medium learning in each of the different study groups, with the aim to determine differences a learning outcomes and student motivation IC field of study.

Study Design with Technical Analysis Varian Two Line (2x2)

Media						
		Utilization of Software Macromedia Flash	Unlization of Software Power Point			
Motivation	high	Learning Outcomes 1 (HB1)	Learning Outcomes 2 (HB2)			
Modvation	low	Learning Outcomes 3 (HB3)	Learning Outcomes 4 (HB4)			

Notes

- HB₁: The results of the study group that uses Macromedia Flash Software Utilization and high learning motivation
- HB₂: The results of the study group were not Exploiting Software Power Point and a high learning motivation
- HB₃: The results of the study group which use Power Point Software Utilization and low learning motivation.
- HB₄: The results of the study group which did not use Power Point Software Utilization and low learning motivation.

C. TECHNICAL DATA COLLECTION

1. Documentation

Documentation is used to obtain data the name of the students being the sample.

cryanon

Observation sheet contains affective and appears of the assessment of students as assessment indicators. In the affective and appears of observation, observation provided by the researchers filled by the error on the first and the second meeting place. Affective aspects are assessed using contains sheet are as follows:

Class attendence

Seriousness and timeliness submit

Courage students working on assignments before class

Amention to follow the lesson

Value the opinions of others

Psychomotor aspects are assessed using

Skills to question in the classroom

Oral communication skills

Digging information through tools/other learning resources

Completeness notebook

Ability to solve problems

The indicators are assessed ICT learning in ass experiment is as follows:

The ability to innovate

The ability to be creative

The ability to have an original idea

The ability to have high imagination

The ability of looking at things from different points of view

The ability to analyze the data

Assessment of this indicator is used to determine the ability of the student to do with the soul/entrepreneurial character formed after obtaining the learning.

Questionnaire

The questionnaire used to determine students' responses to learning that utilizes the Power Point software and Macromedia Flash MX as a medium of learning and motivation to learn are given to students at the end of the entire meeting learning activities.

4. Test

The test is used to obtain data on student learning outcomes of students ICT into the study sample. Tests conducted at the end of the ICT learning.

D. DISCUSSION

 There is a difference in learning outcomes between groups of students who take advantage of Macromedia Flash software with a group of students who take advantage of the power point software as a learning medium.

From the analysis conducted Ha Ho accepted and rejected so we can conclude that the first hypothesis of no difference. Based on the author's way of thinking as described above, then several possible factors that lead to acceptance of the alternative hypothesis (Ha) in this study are as follows:

- a. The learning process is done by using macromedia flash in CD especially an interactive ICT, and learning material can be more interactive power point in particular compared to the usual presentation in learning. Macromedia Plash is much more extensive facilities and capabilities shown in making variety of animation, visual or audiovisual. In addition to the macromedia flash, different factors beyond the control of the teacher can also be resolved. So the results are very apparent if we want to measure the level of motivation to learn and student learning outcomes based on the effect of treatment associated with fun learning media.
- b. Provision of treatment in this study, according to the author, is also as a driver of receipt hypothesis Ha, because in this study the frequency of face-to-face meetings in learning in each group is 6 times 45 minutes. So with this frequency has been able to contribute to the motivation and outcome variables student learning in the field of ICT studies.
- The number of study subjects was divided into two groups that facilitate the provision of the experiment.

 Student activity defined as research subjects, because this result of the study affects the value measurement of student learning in the field of ICT studies.

For this reason, it could be a subject of research when working on test/post-test, they are very active and earnest. Style teacher designated as treatment providers still vary but they are not eligible to teach. Although the level of education, knowledge, and experience of teachers designated as treatment providers are able to control the learning process, it will be able to affect the activity of student learning that encourages learning motivation increases and affects the learning achievement.

Macromedia Flash MX is a software output Macromedia Inc. This software is a program to design animated graphics which are very popular and widely used graphic designers. Excess flash lies in its ability to produce animated motion and sound. (Khotimah, 2008). In addition, Macromedia Flash MX is packing model of learning in the form of an interactive CD. Macromedia Flash MX has a broad scope of capabilities and very sophisticated. Macromedia Flash MX has the ability to combine visual programming into the object-oriented development environment that allows programmers. In addition, Macromedia Flash MX can also be used to visualize the simulation and animation (computer rides, et al, 2004: 12).

The learning model creates interactive learning conditions. So that learning more interesting, students are required to more closely follow the stages of learning, and if there is material that is still poorly understood by the student or theachers, teachers are now looking for material that is not understood by the table of contents of this interactive CD without the teacher having to explain its phases the students are able to take the matter in line with expectations based on the contents of the CD. This is similar to what has been defined by some experts that the interactive CD by using Macromedia Flash MX software can be used as a medium of innovative learning and fun because it is a medium that has elements of sound and image.

While the software power point used as a medium of learning as the PowerPoint is designed specifically to deliver a presentation, both held by the company, government, education, and individuals, with a range of features make it a ment that is capable of exciting communication medium. Some of the things that makes this exciting medium to be used as a presentation tool is a variety of tex processing capabilities, ecotourism, and images, an animations that can be cultivated in accordance creative users.

In principle, the program consists of seven visual elements, and control operations. Visual elements in question are consisting of slides, text images, and fields of color. They can be combine with a background that are already available. The visual elements can be created without motion, a made with certain movements according to owishes. The whole look of the program can a set as needed, whether to run its own appropriationing we want, or run it manually, by clician the mouse button. Usually if it is used for a delivery of teaching materials that emphasizes interaction between learners with educators, a control operation uses the manual method.

The use of this program also has the follow advantages:

- The presentation is interesting because then a game of colors, fonts and animations, is animated text or animated images or phos
- More stimulate children to learn m information about teaching maters presented.
- c. Book information visually easy to undend
- d. Educators do not need much explain teaching material being presented.
- Be reproduced as needed, and can be a over and money.
- f. Data can be stored in the form of opine magnetic. (CD/floppy/flash), so practic be brought everywhere.

Similarly, the results of research Diam (2002: 155) that the interactive CD state easily understand the material because it governies and information more real and

et, it can increase students' interest and to learn. Thus interactive CD by using codia Flash MX software can be used as of ICT learning better than the use of

Dere is a difference in learning outcomes severn groups of students who have high netvation and a group of students who have motivation in learning ICT.

in the discussion section, the writers discuss of the reasons why the alternative hypothesis in this study accepted, this is due to the general that utilizes Macromedia Flash media, ang strategy, proven effective in helping into memorize, look at the information, various application examples, so that students to preview and asking questions before the case of making the relationship between new mation and what is known, the students are trained to make various presentation and mation to be used as exercises development, to students learn the concepts and key topics, thing students to construct many-animated and presentation.

Learning strategy focuses on the development business skills to process information useful. Inches see learners as active researcher of the aroundings and not a passive recipient to a given femulus such teaching is called active student earning (Gulo, 2002: 71). The results showed the se of Macromedia Flash as a medium of learning a very effective for the students overall well madents are intelligent and less intelligent.

There is an interaction between motivation and results of group learning ourcomes of students who take advantage of Macromedia Flash software and power point in ICT learning.

From the analysis conducted test the third hypothesis can be concluded that Ha Ho accepted and rejected so there is interaction between motivation and outcome results of the study group of students who take advantage of Macromedia Flash software and power point in ICT learning. In the provision of learning materials via macromedia flash media student is expected to capture and

remember information that has been provided by the teacher through an interactive CD and presentations as well as revealing what has been owned by the response he gave when asked a question by the teacher.

Communication used by teachers in their interaction with the students is a two-way communication. In this learning strategy the teacher presents the material in the form of an interactive CD for macromedia flash media and presentation models that have been prepared in a structured based teaching materials presented systematically, and students are also involved in a variety of practice and exercise animation creation and presentation. With a view of learning through the use of Macromedia Flash software and power point so students easily controlled by the teacher, this causes more creative students.

Besides effective learning methods, learning motivation has influence on the position of learning outcome. Motivation to learn the field of study of ICT depends on the behavior of the learner. The behavior of learners is the activity of students in learning activities, include; listening and observing the activities of the CD-interactive or other forms of presentations and also completeness ICT library materials in the library, and other activities related to learning activities.

Several factors play a role as student motivation in the field of ICT studies are (1) the pleasure of learning; (2) the persistence of learning; (3) attempt to overcome the difficulties of learning; (4) expectations of success in learning; (5) the timeliness of completing the task; (6) reflect on the lesson; (7) the power of curiosity; (8) attentive behavior in the study; (9) has a high spirit in the study; (10) the ability of competence in the study; (11) belief; and (12) concerns will fail.

D. CONCLUSIONS

Based on the results of the data analysis and discussion of the results of the study can be summarized as follows:

 There is a difference between the ICT learning outcomes of students who use the

- media Macromedia Flash MX and a group of students who use Power Point software.
- There is a difference between the ICT learning outcomes of students who have a high learning motivation and the group of students who have a low learning motivation in learning ICT.
- There is a software media interaction utilizing Power Point, and Macromedia Flash MX as a medium of learning and motivation toward learning outcomes ICT.

E. SUGGESTIONS

As for the suggestion, the writer recommends for the research related to learning media:

- Teachers should choose the right media and as well as the use of computers as a learning medium for the development of creativity and to enhance students' understanding in a variety of scientific fields especially computer material very well need a computer as a learning medium.
- It is recommended to teachers in ICT should be able to create a CD-Interactive learning, or at least able to make models presentation interesting.
- For other researchers, the writer expects that
 the research needs to be expanded on the
 variables, the number of subjects of the study,
 the implementation of treatment for at least
 one semester, and perform closely control of
 the variables that could be expected to affect
 the learning achievement.
- 4. To the vocational school teachers in particular subject areas of ICT as educational practitioners to conduct similar research to be done on the development of the use of variable learning model, which involves a number of other variables that influence the transformation process of learning to improve student achievement.
- How well the student achievement is still
 used as a benchmark for the success student
 learning in formal education in the vocational
 school. It is necessary to use the media and

- learning approaches appropriate and effective and efficient.
- Facilities and infrastructure should be prepare so that the learning can be an effective and efficient. So that it can affect learning outcomes.
- To the teachers, to develop learning strategis that can improve learning outcomes.
- Teachers need to embed ICT to students about the importance of mastering ICT. So, by itselet will be an embedded learning motivation an achievement of their learning.

F. REFERENCES

- Anni, Chatarina T, dkk.. 2004. Psikologi Belan Semarang: UPT MKK UNNES.
- Arysad, Azhar. 2003. Media Pembelajaran. Jakan Rajawali Press.
- Djamarah, Syaiful Bahri. 2002. Strategi Belg Mengajar. Jakarta: Rincka Cipta.
- Darsono, dkk. 2000. Belajar dan Pembelajara Semarang: IKIP Semarang Press.
- Daryanto, M. 1999, Evaluasi Pendidikan, Jakar PT, Rineka Cipta.
- Dimyati. 1999, Belajar dan Pembelajaran. Jakar PT Rineka Cipta
- Dimyati dan Mujiono. 2006. Belajar dan Pembelajan Jakarta: Proyek Pengembangan d Peningkatan Mutu Pendikan
- Ibrahim, M, Rachmadiarti F, Nur M, dan Ismas 2000. Pembelajaran Ksoperatif. Suraba University Proses UNESA
- Jan, W. 2003. Madel-Madel Pembelajaran. Semara Departemen Pendidikan Nasional Ja-Tengah.
- Nasution, S. 2000. Berbagai Pendekatan Dalam pen Belaiar dan Mengajar. Jakarta. Bumi Aksan
- Pusat Bahasa Depdiknas. 2002. Kamus Besar Ba Indonesia edisi III. Jakarta: Balai Pustaka.
- Rohani, A. 1997. Media Instruksional Eduka Jakarta: Rincka Cipta.
- Santoso, K. 2002. Pemiliban dan Pengembangan M. Pembelajaran. Semarang: Proyek Peningka Tenaga Kependidikan dan Non Kependidi Menengah Dinas Pendidkan Provinsi Is

- Tengah Kerja Sama Dengan UPT SBM Universitas Negeri Semarang.
- man, A.S; R. Rahardjo; Haryono, dan A. Rahardjito. 2001. Media Pendidikan Jakarta: Rajawali Press.
- man, 2005. Interaksi dan Motivasi Belajar magjar, Jakarta: Rajawali Press.
- man, 2007. Interaksi dan Motivasi Belajar menggar, Jakarta: Rajawah Press.
- S. 2004, Motivasi dan Pengajaran Kontekstual. Makalah, Disampaikan Pada Workshop Piloting IMSTEP JICA tanggal 23-24 Juli 2004 di FMIPA UNM.
- meto. 2003. Belajar dan Fakter-fakter yang Mempenguruhinya. Jakarta: Rineka Cipta.
- 1997. Pendekatan dan Teknik Dalam Proces Belajar Mengajar. Bandung Tarsito.
- Nana. 2002. Penilaian Haril Prass Belajar Mengajar. Bandung: Remaja Rosdakarya.
- Menggiar, Bandung: Remaja Rosdakarya.
- Ouda. 2003. Membuat Materi Pembelajaran Interaktif dengan Piranti Lunak. http://www. mif.edu/kibbipa/abstracts/otedacna.htm.
- M. 2001. Teknik Evaluari Pendidikan. Jakarta: PT. Raja Grafindo Persada.
- Komputer. 2004. Pembratan CD Interaktif dengan Macromedia Flath MX Profesional 2004. Iskurta: Salemba Infotek.
- riori, W.S. 2008. Psikologi Pengajaran, Jakarta: PT. Gramedia.