E-LEARNING USAGE TO IMPROVING STUDENT'S LEARNING INTEREST AND LEARNING OUTCOMES IN HISTORY LESSON

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ABSTRACT

The research is experimental study of senior high school students in Bogor focuses on the use of e-learning in teaching history and aimed at investigating whether there is any improvement in the student's interest and learning outcomes in history lesson on the students who learn by e-learning, compared to those who learn by traditional method. Nonequivalent (pretest and posttest) control group design is used in conducting the research. The population is the senior high school students in Bogor. The result shows that the students who learn history by e-learning achieved higher degree than those who do not learn using e-learning method, statistically significant at p<0.05. Furthermore, the score of the students learning outcomes for those who learned through e-learning is significantly improved, compared to those who do not learn using e-learning, statistically significant at p<0.05. The social economy status is not significantly correlated to the students' interest and the students' history learning outcomes. In fact, the students' skill in using computer showed a significant correlation to the students' interest and out come at p<0.05. It was concluded that the use of e-learning in teaching history is significantly affecting the students' interest in learning history and the student learning outcomes.

Key Words: *e-learning, history lesson*

Introduction

This research is based on the writer's everyday experiences as a history teacher. From this everyday observation, it can be noted that the students' interest in history lesson is low. In fact, history lesson is an important lesson to develop students' awareness and open their mind that there is an improvement and alteration process in the society in the past. History lesson also helps to develop student's perspective and historical awareness in finding, understanding, and explaining the nation identity involvement in the development of the wolrd (Depdiknas, 2003:2). History is a spiritual chain to completely understand what had happened in the past, its effect in the present and in the future (Suhartini, 2001: i).

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Through history lesson, the students are expected to be able to improve their chronological thinking and knowledge about the past, which can be use to understand and explain the society improvement process and social cultural diversity to find and develop the nation identity in the world multidimensional society. The role of history education is becoming more and more important, if we take a note to Wiriaatmadja (2002:385-386) who said that multidimensional change is in progress and will accompany this millennia changing, it force the human, as the historian subject, to understand and respond various tendencies, guiding student into a better future.

Various transformations happened has forced the student to grow as a human with a wider knowledge, great personality and moral, flexible and tough in facing the changing wave, can adapt well with the future demand, smart and creative, and have faith in God. These qualities are needed because the global information era that accelerate the acceptance of foreign values and aspiration mostly caused confusion, worry, and disorientation in giving the right respond. The big gap between daily life reality in one side and the people of the world improvements in another side is one ofconfusion, worry, and disorientation causes. Wiriaatmadja (2002: 296) explain that in relevance with the challenge and response to multidimensional and worldwide changes, both by the globalisation waves and the 21st century era, history is the guidance and confirmation that give perspective, etiquette and moral guidance, model, and compas to serve the future life, in the meaning and balance of human life.

The aim if history teaching is for the students to understand that there are various life experiences in each society and there is a different perspectives of the past to understand the present and develop knowledge and understanding to face the future. Hasan (2006 b: 1) explain that a nation live in the present have to recognize what they had in the past and what they have in the present. Past inheritance, especially "the glorious past" is one of the history education aims. History education is not merely to make the student know and memorize about the past events of their nation and country, but how they can use their historical knowledge and understanding as a reflection in understanding today life dynamics so they can develop their love and responsibility to their nation.

Through history lesson, the students will be introduced to the past events that form the society and nation where they live today (Hasan, 1996:24). Therefore, the teacher is forced to be creative in developing their theaching materials and method (Supriadi, 1994: 155). The reality observed by the writer as a teacher shows that the goal of history lesson has not been applied thoroughly. Sanjaya's study (2002) explains that 71,43% students felt that IPS (social science) lesson is an uninteresting and boring subject, and only 26,02% considered it interesting and fun, while the other 2,55% did not answer.

This condition is surely worrying because the history lesson role is very important to form the student's personality to have a strong nationalism and patriotism, and also ready to enter the future. A teacher should be able to create

a particular learning process condition and using various things available. This learning condition is identified by Knowles (Abdulhak, 2002:25) as follows:

1. The student has to feel the needs to learn.
2. The learning environment should be fun, respecting each other, helping each other, free to express, and accepting diversity.
3. The student agreed to the learning goals.
4. The students accept the distribution responsibility in planing and conducting learning experiences, and have an agreement to study.
5. The students involve in learning activities.
6. Learning process is associated to the learning experience.

Therefore, if history lesson is not taught creatively by the teacher, the student will note that history is boring and considered that history is merely the events orders of political events that are beyond their everyday life. This is important to considered by the teacher, because history lesson that is taught "dryly" will turn off the student learning passion and desire to learn (Kartodirdjo, 1999:77).

In facing this kind of global challenge, Hasan (1996a: 25-26) explain that Indoesian must have enough qualification to be able to access information through various tools available. They have to be able to receive as many information in a short time, able to screen the information based on the validity and the importance of that particular information for particular purpose. The future Indonesian people must be able to connect one information to the other in a particular way of thinking, able to use the information to improve the quality of life, and able to express any information and communicate by using the available tools.

Similar to Hasan, Gaffar (1996: 12-13) said that in facing the transformation in the future, Indonesian people need to have the following qualities:

1. Having the skill, knowledge, concept, behaviour, perception, attitude, and experience in science and technology, especially information technology that influence various aspects of people's life.
2. Discipline, accurate, Careful, responsible, tolerance, highly competence, professional, and love this motherland, nation, country, and religion.
3. Understanding the national, regional, and global perceptions as a tool to have a role in the global competition.
4. Have a high awareness and love the nation cultural values that formed the identity as a nation of a sovereign country.
5. Have a great commitment to humanity values and a great responsibility to conserve, maintain, and develop the environment needed for the next generation.

These quality can be developed and trained through education process if the education is directed to the needed quality for the sains and technology improvement that exist in every human life aspects. Supriadi (1994: 120) said that today, the ability to master sains and technology is not merely an alternative, but a must to accelerate the improvement process in order to improve the human dignity and prestige.

If this education role is associated to the history strategic role, the main function of history is to improve and develop the students' awareness of the nation and country history. According to Kartodirdjo (1999: 65-67) historical awareness has a potential to emerge the students' sense of pride and obligation. To gain that awareness history lesson should be given in an effective didactic, and also improving the students' interest to learn and to gain inspiration and aspiration for their life. To develop that interest, the student interest to history lesson should be developed as early as possible. Abdulhak (2001: 8-9) explain, a lesson that do not push the students to create activities based on their potential and ability results in a boring and uninteresting learning process. Slameto (1995:180-181) also explain the same opinion that if a person do not have any interest of something, that person will not have enough knowledge and understanding about that particular thing. The same thing applied in history lesson, if the student is not interested in history, then, the will not have enough knowledge and understanding of history. On the contrary, if the student have a high interest of history lesson, then, it can be concluded that the will have a lot of knowledge and understanding of the material that had been taught in the history lesson.

One method to increase the interest to study history is by changing the history learning process. One example is, we can use media in the history lesson. It is recommended to use medium that can improve the historical knowledge and context in learning history, and also improving the learning outcomes. Slide, film, radio, television, computer with CD ROM, and internet connection can be used to access various information about the local, national, and even international issues (Depdiknas, 2003: 5). This means, history lesson should be open to use e-learning.

Purbo (2002: 7) explain that we need to create an e-learning that can drown the student to follow every learning step just like playing a game. An observation to the computer gamers attitude identified that interest. Playing computer game is fun. Gamers can sit for hours to play the game and really enjoy it. Purbo (2002:8) add that the useful and interesting e-learning system plan is the one that is simple, personal, and fast. A simple system will simplify the student in using the available technology and menu, the easy access panels result in a faster introduction of the e-learning system, and the learning session will be more efficient. Through a personal e-learning system, the teacher can interact better similar to when the teacher communicating in front of the class. The fast system can improve the respond to complain and material needed, it results in an easier way to do some maintenance during the learning process.

Romiszowki and de Hass (Hernawan 2004: 82) showed that by using technology, student can be more involved in learning process and will have a more fun learning experience. This is similar to Munir (2003:4) who said that multimedia is a useful learning and teaching media based on its skill to touch various factors such as: vision, listening, and contact. This is proved by Schade study in 1994 (Munir, 2003a: 4), Schade found that the percentage memory of

the student who only read is infact the lowest (1%). Memory can be increased to 25%-30% by another teaching tool, such as television and video. Teaching and learning method can increase as much as 60% if 3D medium is used. Furthermore, a study by Al-Seghayer in 2001 (Munir, 2003; 4) shows that video clip can give a more meaningful effect to master words (90%), compared to picture (76%) and text (60%). Multimedia also has the ability to express a meaningful 3D concept, if the study curriculum is planned systematically, communicative, and interactive during the learning process. Nuraini (2003; 4) also found that there is a significant increase in ITB students after they were given the study material and assignment by using multimedia. The students who learn with multimedia are more enthusiastic and more interested compared to those who learn with black board and chalks.

Therefore, Munir (2003b: 7) explains that there are several principals to be considered in responding the information technology:

1. The information technology purpose: to help human in solving their problems, emerge some creativity and impressed human if they do not use information technology in their activities.
2. High-tech-high-touch principal: depends more in the most sophisticated technology, we better consider the "high touch" aspect, the human.
3. Adjusting the information technology to human, we should adjust the information technology to the human than human to the information technology.

Munir also explain about the benefits of information technology:

1. Fast, a relative value. Computer can do anything in a blink, faster than human.
2. Consistent, computer can do the same job again and again consistenly.
3. Accurate, computer can sense a very small difference.
4. By this confidence, speed, consistency and accuracy we can predict that the decision made can be trusted and the same result can be gain again and again.
5. Increase the productivity.
6. Emerging creativity

Thus, it is clear that information technology has a role to help human in improving their productivity and prosperity, solving problem, predicting several option to solve a problem, and implementing it correctly. Whereas the responsibility to be concerned in using information technology is the awareness in measuring the ability and the limit of the information technology and using it properly and in a good etiquette to protect the data and information (Munir, 2003b: 7-8).

1. In order to face the problems emerged by globalization, Parapak (2003:13) suggest the importance of using technology in learning process:
2. Simplify the most recent science and technology access globally.

3. Increase the learning performance and quality by interactive multimedia support.
4. Extent the scope and learning audience through internet and multimedia network.
5. Encouraging the student to be actively creative and inovative.
6. Increase the efficiency and productivity learning institution management.
7. A complex research is possible to conduct through modelling/simulation in a global network.
8. Facilitate the synergy, integration, and level between science and institution.

Based on conceptual and empirical analysis, associated to History learning and the students' interest as explained above, the teacher should be able in choosing, using models, and learning strategy that fits the student interest and expectation in learning history. In the interaction of learning and teaching process there are two party interact on both sides, the teacher who give the study material and the student who study the material (Sjamsuddin, 2005:175). According to Kemp (Ibrahim, 2004: 73) a learning process is considered very effective if: (1) 80% of the students achieved 80% of the study goals, and (2) they rarely make any working mistakes. Understanding the student interest tendency in learning, especially learning history can be used as the basis and reference to expand the material to be taught (Slameto, 1995: 180-181).

Based on the previous explanation, e-learning is considered as a solution to improve students' interest in studying history. Moreover, by e-learning a lot of benefits can be achieved in the learning-teaching process, such as:
1. The availability of e-moderating facility where teacher and students can communicate easily through internet regularly. They communicate anytime, not limited by distance, place, or time.
2. Teacher and student can use structured and scheduled teaching material or guidance in the internet, so both can measure how far the material has been learned.
3. The student can study or reviewing the material anytime, anywhere, because the material is saved in the computer.
4. If the students need more information about the material being studied, they can access the internet easily.
5. Teacher and student can discuss through internet that can be followed by many others, its increasing the knowledge.
6. The student role is shifted from passive to active (Soekartawi, 2003: 11-12).

From various study it can be concluded that e-learning proved to be effective as a learning process medium. The study conducted by the *Center for Applied Special Technology* (CAST) in 1996 to 500 students that were divided into two groups, the experimental group which was facilitated by internet acces in their learning process and the control group. After two months, the study shows that the experimental group achieved higher grade of the final test (Yuhetty, 2004: 188).

Study conducted by Moore (1996) to 57 master degree students also shows the similar result. The students were divided into three groups, the first group was 24 students who learned through satellite, the second group was 13 students who learned with instructor, and the thirds group was 20 students who learned with instructor in a difference time and place. The result that was measured by test, paper assignments, and homework shows that the first group was better than the second, and the third group. This proof that e-learning hence a more efficient and interactive class, which result in a significant improvement as a space to study (Koswara, 2003: 4).

Ngatimin and Shah (2004: 23) in Johor proof that technology usage in learning History can: improve the understanding of the subject, give the same study chances, improve the motivation, allow an independent learning, accessing a rare material, creating an interesting and fun learning condition, improving the creativity and imagination, the learning process works by a minimum guidance, improving Information and Communication Technology skill.

Moreover, Ngatimin and Shah (2004: 24-25) also said that ICT is an innovative learning and teaching process tool. The application in learning process is categorized into: tutorial, exploration, application tool, and communication.

1. Tutorial, used to deliver the lesson material orderly. Tutorial includes: expository learning the detailed explanation, demonstration of a phenomenon which events is shown and controlled by the system, exercises or drills are presented and controlled by the system.
2. Exploration (exploratory), exploratory learning used the medium of: information acces and source from CD-ROM, Internet, experience, learn and study a phenomenon in the simulation, see the demonstration of a sequence of events that can be controlled by the student.
3. Application aid, used to help students doing their work, and not as a mechanism for dissemination of teaching & learning.
4. Communication, used to help students and teachers from different locations to send, receive, and share informations.

Based on these study results, it can be concluded that e-learning usage in a learning process give a positive result. Therefore, a question emerge, does the e-learning usage in History lesson can also improve students' interest in learning History and its outcomes? It is a must if we want to return the essence and substance of learning History as a tool to develop and improve nationalism and patriotism values among students, for the purpose of developing a better Indonesian people.

Identification

According to the background explained above, there are many factors that affect the process quality and outcomes of the History lesson. The most influencing

factor is the lower students' interest in learning History. If the material is not taught creatively, it results in a boring situation. The background study also shows that e-learning has been used in the learning process of various subjects and it interested the students. With a higher interest, the learning outcomes will also be higher. Therefore, the main topic of this dissertation is: *Can the e-learning usage in the History lesson improve the student's interest to the History lesson and improving the learning outcomes?*

The Research The Questions

The identification above contains several aspects. *First,* about e-learning usage in learning History; *second*, its effect to the students' interest; and *third*, the effect to the student outcomes. These aspects need a systematic study. In addition to these three dimensions, social-economy background of the students' family and their computer skill can be a significant variable for the learning interest and out comes. These factors are the control variable to identify the e-learning effect to the students' learning interest and outcomes. Therefore, the following research questions are based on the above matters:

1. Is there any significant difference in the students' interest for those who learn History in e-learning class to the students who learn History in a traditional class?
2. Is there any significant difference in the students' outcomes for those who learned History in e-learning class to the students who learned History in a traditional class?
3. Is the e-learning effect to the students' interest bigger than the e-learning effect to the students' out come in the History lesson?
4. Does the social-economy background affect the students' interest for those who learn in e-learning class to those who learn History in a traditional class?
5. Does social-economy background affect the students' out come of those who learned in e-learning class to those who learned History in a traditional class?
6. Does computer skill affect the students' interest for those who learned in e-learning class to those who learned History in a traditional class?
7. Does computer skill affect the students' out come for those who learned in e-learning class to those who learned History in a traditional class?

Assumption and Hypothesis

Hypothesis is a temporal answer for a problem in a research. There are four criteria in identified hypothesis, according to Mc Millan and Schumacher (2001: 89-90): 1) the identified hypothesis should be a question about the relationship

of two variable or more; 2) the identified hypothesis must be able to be examined; 3) the identified hypothesis should have a sense of statistic use; 4) the identified hypothesis must not have ambiguous meaning.

The assumptions of this research are various factors off this research that considered as having the same effect for the students who learn in e-learning class and the students who learn in the traditional class. Based on the assumption, the hypotheses to answer the research question are as follows:

1. Ho: there is no significant difference of students' interest between the students who learn in e-learning class and those who learn History in traditional class.
    Ha: There is a significant difference of students' interest between the students who learn History in e-learning class and those who learn in a traditional class.

2. Ho: there is no significant difference of students' out come between the students who learn History in e-learning class and those who learn History in traditional class.
    Ho: there is no significant difference of students' out come between the students who learn History in e-learning class and those who learn History in traditional class.

3. Ho: There is no significant difference of the e-learning effect to the interest and the e-learning effect to the students' study out come in learning History.
    Ho: There is significant difference of e-learning effect to the interest and e-learning effect to the students' study out come in learning History.

4. Ho: there is no significant difference of the effect of social-economy background to the interest, between students' who learn in e-learning class and those who learn History in traditional class.
    Ho: there is significant difference of the effect of social-economy background factor to the interest, between students' who learn in e-learning class and those who learn History in traditional class.

5. Ho: there is no significant difference of the effect of social-economy background to the learning out come, between students' who learn in e-learning class and those who learn History in traditional class.
    Ho: there is significant difference of the effect of social-economy background factor to the learning out come, between students' who learn in e-learning class and those who learn History in traditional class.

6. Ho: there is no significant difference of the effect of computer skill to the student's interest, between students' who learn in e-learning class and those who learn History in traditional class.
    Ho: there is significant difference of the effect of computer skill to the student's interest, between students' who learn in e-learning class and those who learn History in traditional class.

7. Ho: there is no significant difference of the effect of computer skill to the student's out comes, between students' who learn in e-learning class and those who learn History in traditional class.

Ho: there is significant difference of the effect of computer skill to the student's out comes, between students' who learn in e-learning class and those who learn History in traditional class.

Research Purpose

The purpose of this research is to develop a History e-learning model in the frame of engagement theory.
Particularly, the purposes of this research are:
1. To find the effectivity of e-learning usage to omprove the students' interest and out comes in History lesson in public senior high school in Bogor, compared to the current learning method.
2. To find out the effect of social-economy factor and the computer skill to the students' interest and out comes of the History lesson.

The Research Benefit

This research has a theoretical and practical benefit. *Theoritically,* this research is expected to give a theoretical contribution in e-learning application as a part of engagement theory. For engagement theory, the proof in History is new, particularly in the context of the senior high school learning process. Therefore, the result of this research must be able to support the theoretical position which said that through e-learning the students are more involved in learning process, have more interest, and better out come.

In the practical level, the result of this research is expected to have contribution for:
1. The policy maker, the result of this research can be an alternative to be disseminated for senior high school, in order to improve the learning quality, and therefore will improve the student interest of History lesson subject.
2. The Teacher, the usage of e-learning is expected to open the teacher's perception in improving their professionalism and give a more effective learning process.
3. The students, the usage of e-learning in the History lesson is expected to improve their interest to learn History, and therefore will improve their academic achievement.

Research Method

The method use in this research is experimental. McMillan and Schumacher (2001: 590) explain that experimental research is "research in which independent

variable is manipulated to investigate cause-and-effect relationships between the independent and dependent variable"

To conduct a pure experimental reseach various variable that is predicted can affect and influence the independent variable have to be strictly controlled. A strict control can only be done in the laboratory experiment. Because this research is not a laboratory experiment, but of everyday life, it is impossible to strictly control all variable that could affect the independent and dependent variable. Therefore, this research is in the form of quasi experiment. Gall, Gall and Borg (2003: 402, 634), explain that a quasi experiment research is "a type of experiment which research participants are not randomly assigned to the experimental and control groups" Each individual does not have an equal random chance in the experimental group or in its control group.

The design of this research is Nonequivalent (Pretest and Posttest) Control Group Design. According to Creswell (1994: 132), Nonequivalent (Pretest and Postest) Control Group Design is:

In this design, a popular approach to quasi experiments, the experimental Group A and the control Group B are selected without random assignment. Both Group take a pretest and post test, and only the experimental group received the treatment.

In addition, Gall, Gall dan Borg (2003: 402, 634) said that:

The most commonly used quasi-experimental design in educational research is the nonequivalent control groups design. In this design, research participants are not randomly assigned to the experimental and control groups, and both groups take a pretest and a posttest. Except for random assignment, the steps involved in this design are the same as for the pretest-posttest experimental control group design

In the design with quasi experiment approach, group A as the experiment group and group B as the control group was determined randomly with particular criteria. Both groups were given the pre-test and post-test, and only the experiment group receive treatment. After that the average difference score between the control group and the treated group is compared (Gall, Gall, & Borg, 2003:402-403; Creswell, 1994:132-133). Quasi experiment design is shown in Table 1.

Table: 11.1
Quasi Experiment Research Design

Group	Pre-test	Treatment	Post-test
Experiment	T 1	X 1	T 2
Control	T 1	X 2	T 2

Adopted from: Mc Millan and Schumacher (2001), Fraenkel & Wallen, (1993)
Information:
T1 = Pre test
T2 = Post test
X1 = History Lesson by e-learning
X2 = Traditional History lesson

Location, Population, and Research Sample

The research was conducted in senior high schools in Bogor. The research was involving grade X students from ten senior high schools in Bogor and the sampling was taken by purposive sampling.

Teaching Material Development

The purpose of this research is to improve the students' interest and out come of the History lesson, therefore the teaching material is designed accordingly to the learning process model that would be used, the e-learning. The purpose of teaching material design is to improve and increase the learning process quality to achieve an optimal out come for the students, based on the expected goal.

Steps in designing the History e-learning application of this research can be seen in Table 2 below:
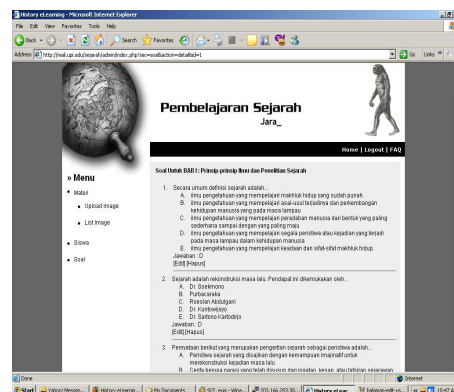
Table : 11.2
Teaching Material Development Design of History e-learning

| Development step	Activity
Source identification	Identify and gather various sources
Screening and Analysis	Analysing curriculum Analysing the students characteristic Analysing the setting
Design	Making storyboard Making navigation structure
Development of digital management and competence	History website creation Programming
Evaluation	Website valuation by the validators
Testing	Testing to the student

In the picture 1 below, we can see the appearance of the History e-learning process.

Website Intro Display of History Lesson   Evaluation Questions Display
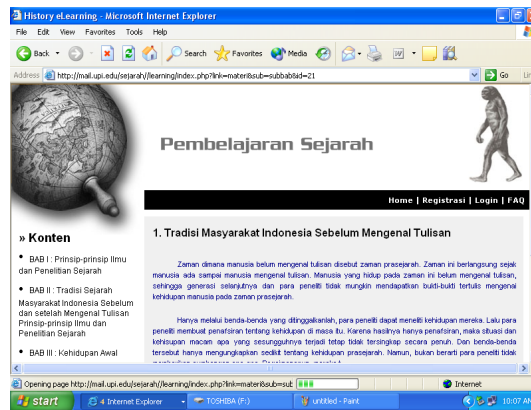
Learning Material Dsiplay

Picture 11.1
The Appearance of History e-learning process

The Processing Technique and Data analysis

The data of this research is processed by statistic technique, using SPSS 14,0 for Windows program. Creswell (1994:153-154) said that there are few steps to analyse data:

1. Take note of all information and or data entry,
2. Accurately screen the data, to avoid a bias answer,
3. Conduct a descriptive analysis of all research variable, such as determining the tendency of means, ranges, and standard deviation.
4. Connecting the dependability between independent variable and dependent variable by factor analysis.
5. Comparing the connection between variables and the answer of the research questions with the research purposes that has been determined.

The processing steps and data analysis of this research are as follows:

1. Checking the received questionnaires from the respondents, to find out whether the targeted quantity fulfilled or not.
2. Put numbers on every questionnaire to simplify the data tabulation and questionnaire control, considering the possibility that anything need to be rechecked.
3. Giving score for every respond item based on the standard determined by each variable to achieve the score after the measurement.
4. Entering all data to SPSS 14.0 for Windows computer program.
5. The data entered and calculated will be analysed based on variable grouping, identification, the research question, and hypotheses.

Research Result and Hypotheses Test

Based on the data that was collected through questionnaire and test to the student, the research result and hypotheses test are as follows:
1. The Students' Interest in History lesson.
    The students' interest in History lesson before and after the treatment can be seen in the following Table 3

Table : 11.3
The Student's Interest in History Lesson.
Before and After the Treament

Treatment Group		The Student's Interest in History Lesson.			
		Before treatment		After Treatment	
		High	Medium	High	Medium
Control	N		40	9	31
	%		100%	22%	77.5%
Experiment	N		41	41	0
	%		100%	100%	.0%

Before treatment, in table. 3, we can see that the student's interest in History lesson bertween the experiment group and control group is equals. In both groups, the student's interest in History lesson is medium.

After treatment, it is obvious that there is a difference in the student's interest in History lesson between the experiment group and control group. In the experiment group, the student's interest in History lesson is high, the medium level is zero. But on the control group, the students' interest in History lesson is distributed into two groups, 22,5% is high and 77,5% is medium.

This situation shows that there is a difference of treatment effect in the History lesson interest between the control group and experiment group. The experiment group shows a better result than the control group.

2. Hypotheses test
    The hypotheses test result of the student's after using e-learning in History lesson can be seen in Table 4.

Table : 11.4
Hypotheses Test Result

Problems		Reseach Hypotheses	Testing	Test result
The difference interest for students who learn History in e-learning class to the students who learn History in traditional class.	Ho	There is no significant difference of students' interest between those who learn in e-learning class and those who learn History in traditional class.	Ho rejected	Not significantly different
	Ha	There is a significant difference of students' interest between those who learn in e-learning class and those who learn History in traditional class.	Ha accepted	Significantly different
The difference out come for students who learn History in e-learning class to the students who learn History in traditional class.	Ho	There is no significant difference of students' learning out come between those who learn in e-learning class and those who learn History in traditional class.	Ho rejected	Not significantly different
	Ha	There is a significant difference of students' learning out come between those who learn in e-learning class and those who learn History in traditional class.	Ha accepted	Significantly different
The e-learning effect to the students' interest is bigger than the e-learning effect to the students' out come in the History lesson.	Ho	There is no significant difference of e-learning effect to the student's interest and e-learning effect to the study out come of the students History lesson.	Ho rejected	Not significantly different
	Ha	There is a significant difference of e-learning effect to the student's interest and e-learning effect to the study out come of the students History lesson.	Ha accepted	Significantly different
The social-economy background factor affected the students' interest for those who learn in e-learning class and those who learn History in a traditional class	Ho	There is no significant difference of the effect of social-economy background factor to the interest, between students who learn in e-learning class and those who learn History in traditional class.	Ha accepted	Not significantly different
	Ha	There is a significant difference of the effect of social-economy background factor to the interest, between students who learn in e-learning class and those who learn History in traditional class.	Ho rejected	Significantly different

The social-economy background factor affected the students' out come for those who learned in e-learning class and those who learned History in a traditional class	Ho	There is no significant difference of the effect of social-economy background factor to students' out come, between students who learn in e-learning class and those who learn History in traditional class.	Ha accepted	Not significantly different
	Ha	There is a significant difference of the effect of social-economy background factor to students' out come, between students who learn in e-learning class and those who learn History in traditional class.	Ho rejected	Not significantly different
Computer skill affect the student's interest for those who learn in e-learning class to those who learn History in a traditional class	Ho	There is no significant difference of the effect of computer skill to the student's interest, between students who learn in e-learning class and those who learn History in traditional class.	Ho rejected	Not significantly different
	Ha	There is a significant difference of the effect of computer skill to the student's interest, between students who learn in e-learning class and those who learn History in traditional class.	Ha accepted	Significantly different
Computer skill affect the student's out come for those who learned in e-learning class to those who learned History in a traditional class	Ho	There is no significant difference of the effect of computer skill to the student's out come, between students who learn in e-learning class and those who learn History in traditional class.	Ho rejected	Not significantly different
	Ha	There is a significant difference of the effect of computer skill to the student's out come, between students who learn in e-learning class and those who learn History in traditional class.	Ha accepted	Significantly different

Conclusion

Based on the previous research result and discussion, the conclusion of this research is as follows:

First, e-learning usage in the History lesson can improve the students' interest. The activities in e-learning result in a more interesting and fun history lesson, therefore the students will be motivated to learn. This results in an increased of students' interest in History lesson.

Second, e-learning usage in the History lesson can improve the students' learning out come. By e-learning the teaching-learning process becomes more

conducive and effective. This conducive situation improved the students' absorption of the material taught, therefore, the learning outcome is imrpoved.

Third, the e-learning usage in History lesson gives a positive effect, both for students' interest and students' out come. This situation exist because the students have a higher interest in History lesson, they can also absorb and understand what had been learned in the History lesson. The higher interest in e-learning does not matter at all because, truthfully, there is a connection between the interest and learning out come. Learning out come and students' interest is also affecting each other. Higher achievement improves the positive effect, and this positive effect results in a higher achievement, and higher achievement results in a more positive effect.

Fourth, The social-economy background does not affect the student's interest, for those who learn in e-learning class and those who learn History in a traditional class. Therefore, e-learning usage can be applied in History lesson for all students with various social-economy backgrounds.

Fifth, The social-economy background does not affect the student's outcome, for those who learned in e-learning class and those who learned History in a traditional class. Therefore, the student of any social-economy background can study history by e-learning.

Sixth, computer skill for history lesson through e-learning affects the students' interest. E-learning usage gives a better result if the students have an appropriate computer skill.

Seventh, computer skill for history lesson through e-learning affect student's out come. The students who use e-learning should have computer skill. Therefore, they will not face any difficulty and can handle the situation if there is a problem.

It can be concluded that the e-learning usage in History lesson is a very useful choice with a positive result. E-learning extent the availability of learning sources and can be developed if school has computer facility, therefore, the student can search various learning sources.

E-learning usage in learning history creates a fun and a conducive learning situation. Therefore, the student will be more interested and motivated to learn. This fun situation and condition is the important and essential factor to reach the learning effectiveness.

With a higher interest, the students will be actively participated and involved in learning process. The higher interest affects the intensity of a student to "engaged" to study. Student involvement is very important because it is associated to the "engaged time" or the time use by the students to pay attention to the material learned in the class.

A learning process will work if during the process the student is interacting and get involved. E-learning usage in History lesson clearly gives a wider chance for the student to get involved and interact with various learning sources, and the student will have a rich learning experience. The various activities in e-learning will emerge their curiosity and erase the opinion that History is boring.

Recommendation

Based on the conclusion above, the recommendation of this research is as follows:

1. *For science development*, the result of this research can be used as information in improving the effective, efficient, and interesting learning process design, and the meaningfulness of History lesson can be increased.

2. *The policy maker,* the result of this research can be an alternative to be disseminated for senior high school students, in order to improve and increase the learning quality of History lesson. If the student's learning process is improved, this can also improve the learning quality of the school.

3. *For the school principal*, e-learning can be used as maximal as possible to improve the education service quality to the students. It's important to avoid the student from a boring situation. Therefore, the learning interest and enthusiasm can be improved and the lesson would be more meaningful.

4. *For teachers*, e-learning is expected to open the teacher's perspective and improve their professionalism. Therefore, teachers will have a more optimal role in developing the students' ability. By using e-learning, History lesson will be more variate and fun. Therefore, history can better be understood by the student and will directly affect their learning out come.

5. *For the student,* e-learning usage in History lesson is expected to be a solution to change a sceptical opinion of History lesson, the students' interest will increase, and in the end will also improve the academic achievement.

6. *For the next researcher,* it is expected to create a more variate History lesson. For example, by adding audio such as: traditional music from various country, the teacher's voice, and a particular games. Therefore, the student will be more interested in learning History.

REFERENCES

Abdulhak, I. (2002). *Metodologi Pembelajaran Orang Dewasa*. Bandung: Andira.

Abdulhak, I. (2001). *Komunikasi Pembelajaran: Pendekatan Konvergensi dalam Peningkatan Kualitas dan Efektivitas Pembelajaran.* Pidato Pengukuhan Guru Besar. UPI Bandung. 18 Oktober.

Banks, J. A. dan Clegg A.A. Jr (1985). *Teaching Strategies for the Social Studies*. Third Edition. New York & London: Longman Inc.

Bloom, B.S. (1982). *Human Characteristic and School Learning*. New York: McGraw-Hill.

Borg, W. dan Gall, M. (2003). *Education Research, An Introduction*. Boston: Pearson Education Inc.

Creswell, J.W. (1994). *Research Design Qualitative and Quantitative Approaches*. London: Sage Publications.

Dekker, N. (1995). *Sejarah Indonesia Baru*. Edisi 2. Jakarta: PT. Grahajaya Ofset

Departemen Pendidikan Nasional. (2003). *Kurikulum 2004 Standar Kompetensi Mata Pelajaran Sejarah*. Jakarta: Depdiknas.

Departemen Pendidikan Nasional. (2006). *Kurikulum Tingkat satuan Pendidikan (KTSP)*. Jakarta: Depdiknas.

Drake, F.D. Nelson, L.R. (2005). *Engagement in Teaching History, Theory and Practices for Middle and Secondary Teachers*. New Jersey: Pearson Education.

Fraenkel, J.L. Walen, N.E. (1993). *How to Design and Evaluate Research in Education*. New York: McGraw-Hill, Inc.

Gaffar, M. F. (1996). "High Tech dan High Touch dalam Pengembangan SDM untuk Tahun 2020". *Mimbar Pendidikan*. 4/XV/1996. 10-15. Bandung: University Press UPI.

Hasan, S. H. (2007). "Perkembangan Kurikulum Pendidikan Sejarah di Indonesia pada Masa Kemerdekaan". Makalah pada Seminar Internasional Sejarah. Bandung. 6 Januari 2007.

Hasan, S. H. (2006a). "Pendidikan Multikultural dalam Pengajaran Sejarah". Makalah pada MUKERNAS Pengajaran Sejarah Direktorat Sejarah, Departemen Pariwisata dan Kebudayaan. Surabaya. 11 Juli 2006.

Hasan, S. H. (1996a). *Pandangan Dasar mengenai Kurikulum Pendidikan Sejarah*. Pidato Pengukuhan Guru Besar. IKIP Bandung. 17 Oktober.

Ibrahim, N. (2004). "Efektivitas Tutorial Jarak Jauh Audio Interaktif dalam Pembelajaran". *Teknologi Pembelajaran: Peningkatan Kualitas Belajar melalui Teknologi Pembelajaran*. Jakarta: Pustekkom.

Kamarga, H. (2002). *Belajar Sejarah Melalui e-learning Alternatif Mengakses Sumber Informasi Kesejarahan*. Bandung: Intimedia.

Kartadinata, S. (2006). "Pidato Rektor Pada Upacara Wisuda Gelombang II Tahun Akademik 2005/2006 UPI". Bandung. 9 Nopember 2006.

Kartodirdjo, S. (1999). *Ideologi dan Teknologi dalam Pembangunan Bangsa, Eksplorasi Dimensi Historis dan Sosio Kultural*. Jakarta: Pabelan Jayakarta.

Lasmawan, I. W. (2002). Pengembangan Model Pembelajaran Ilmu Pengetahuan Sosial di Sekolah Dasar dengan Model Ilmu-Teknologi-Masyarakat (ITM): Studi Pembelajaran IPS untuk Meningkatkan Kualitas Proses dan Hasil Belajar Menuju Siswa yang Literasi Sosial-Teknologi pada Sekolah Dasar di Kabupaten Buleleng-Bali. Disertasi. Bandung: PPS-UPI.

McMillan, J. H. Schumacher, S. (2001). *Research in Education A Conceptual Introduction*. New York: Longman.

Munir. (2003b). *Konsep dan Aplikasi Teknologi Informasi dalam Meningkatkan Literasi Komputer dan Informasi*. Makalah. Bandung: PPS UPI.

Munir. (2003a). "Pengembangan Teknologi Multi Media Terhadap Motivasi Belajar Anak-anak Prasekolah dalam Pembelajaran Literasi". *Mimbar Pendidikan*. No.3/XXII/2003, 4-11. Bandung: University Press UPI.

Ngatimin, N., Shah, S. Md. (2004). *Pedagogi ICT (Information and Communication Technology) dalam Pengajaran dan Pembelajaran Sejarah*. Johor.

Nuraini, N. (2003). "Modul Multimedia sebagai Salah Satu Sarana Peningkatan Motivasi Mahasiswa dalam Mempelajari Kalkulus". Makalah pada Seminar E Learning Comlabs ITB, Bandung. 11 Desember 2003.

Pannen, P. (2005). *Pengembangan E-learning: Antara Mitos dan Kenyataan*. Makalah pada Seminar Nasional Teknologi Pembelajaran. Jakarta, 5-6 Desember 2005.

Pintrich, P. R. Schunk, D. H. (2002). *Motivation in Education: Theory, Research and Applications*. New Jersey: Pearson Education Inc.

Purbo, Onno W. Hartanto, A A.(2002). *Teknologi e- Learning Berbasis PHP dan MySQL*. Jakarta: Elex Media Computindo.

Rosenberg. M. J. (2001). *E-Learning Strategies for Delivering Knowledge in the Digital Age*. New York: Mc Graw-Hill.

Sanjaya, W. (2002). *Pengembangan Model Pembelajaran Metode Klinis bagi Peningkatan Kemampuan Berfikir Siswa dalam Pembelajaran IPS di SD*. Disertasi. Bandung: UPI.

Slameto. (1995). *Belajar dan Faktor-faktor yang mempengaruhinya*. Jakarta: Rineka Cipta.

Soekartawi. (2003). "Prinsip Dasar e Learning: Teori dan Aplikasinya di Indonesia". *Jurnal Teknodik*. No. 12/VII/Oktober 2003. 5-27. Jakarta: Pusat Teknologi Komunikasi dan Informasi Pendidikan.

Suhartini, D. (2001). *Minat Siswa Terhadap Topik-Topik Mata Pelajaran Sejarah dan Beberapa Faktor Yang Melatarbelakanginya (Studi Deskriptif terhadap Siswa Sekolah Menengah Umum Negeri di Kota Bogor)*. Tesis. Bandung:UPI.

Supriadi, D. Mulyana, R. (ed). (2004). *Membangun Bangsa Melalui Pendidikan*. Bandung: Remaja Rosdakarya.

Supriadi, D (1994). *Kreativitas, Kebudayaan dan Perkembangan Iptek*. Bandung: Alfabeta.

Suprijadi. (2003). "Infrastruktur dalam Pengembangan E-Learning". Makalah pada Seminar E Learning Comlabs ITB. Bandung. 11 Desember 2003.

Wiriaatmadja, R. (2002). *Pendidikan Sejarah di Indonesia, Perspektif Lokal, Nasional dan Global*. Bandung: Historia Utama Press.

Yuhetty. H. (2004). " Edukasi.Net Pembelajaran Berbasis Jaringan: Tantangan dan Peluangnya". *Teknologi Pembelajaran: Peningkatan Kualitas Belajar melalui Teknologi Pembelajaran*. Jakarta: Pustekkom.

Zainul, A. (1997). *Locus of Control, Self Esteem, dan Tes Baku*. Pidato Pengukuhan Guru Besar. IKIP Bandung. 27 Februari.

INTERNET

Abell, M. dan Lewis, P. (2005). *Universal Design For Learning: A Statewide Improvement M*odel For Academic Success.[On Line] Tersedia: http://www.rit.edu/~easi/itd/itdv11n1/abell.htm. [9 November 2005]

Anderson, C. (2005). *Theory of Teaching and Learning*.[On Line] Tersedia: http://www.usd.edu. [1 September 2005]

Berliner, D. C. (1990). *What's All the Fuss About Instructional Time?* [On Line] Tersedi   http://courses.ed.asu.edu/Berliner/readings/fuss/fuss.htm   [20 September 2006]

Freud. S. (2007). *Conditions Required for Learning*. [On Line]. Tersedia http://library.thinkquest.org/C005704/content_hwl_crl.php3.[5 Maret 2007]

Gottlieb, M. (2001). *E-Learning: Are You Tortoise or a Hare?* [On Line] Tersedia http://www.comproj.com/Gottlieb_Feb2000.htm [4 April 2004]

Gottlieb, M. (2000). *Foundations of E-Learning*. [On Line]. Tersedia: http://www.comproj.com/Gottlieb.htm [4 April 2004]

Gottlieb, M. (1997). *School as We Know It Could Be Out Forever*. [On Line] Tersedia: http://www.comproj.com/mg-art1.htm [4 April 2004]

Hamilton, E. K. (2001). *Learning Definitions*. [On Line]. Tersedia: http://webhome.idirect.com/~kehamilt/psydef5.html [25 Januari 2007]

Hansen, J.C. (1995). *Interest Assessment*. [Online]. Tersedia: http://www.ed.gov/databases/ERIC_Digests/ed389961.html [18 Desember 2004]

Hasan, S. H. (2000). *Pendekatan Multikultural untuk Penyempurnaan Kurikulum Nasional*. [On Line]. Tersedia http: www. Depdiknas.go.id/jurnal/26/ pendekatan_hamid_hasan.html. [20 Agustus 2004].

Kearsley, G. Shneiderman, B. (1999). *Engagement Theory: A framework for technology-based teaching and learning*. [On Line]. Tersedia http://home.sprynet.com/~gkearsley/engage.htm. [23 Juli 2006]

Koran, J. K. C. (2004). *Aplikasi 'E-Learning' dalam Pengajaran dan Pembelajaran di Sekolah-sekolah Malaysia: Cadangan Perlaksanaan Pada Senario Masa Kini*. [On Line]. Tersedia http://www sekolahku.net/artikel/pengenalan-e-learning.pdf. [8 Maret 2004]

Leigh, D. (2004). *A Brief History of Instructional Design*. [On Line]. Tersedia: http://www.pigncispi.com/articles/education/brief%20history.htm   [8 Februari 2004]

McCombs, B.L. (2002). Motivation Exercise.[On Line]. Tersedia: http://incolor.inetnebr.com/fadams/motivation_exercise.htm.[5 Maret 2007]

Minton, M. C. (2000). *Is Your Organization Ready for E-Learning?* [On Line] Tersedia: http://www.comproj.com/Minton.htm [4 April 2004]

Ryder, M. (2004). *Instructional Design Models*. [On Line] Tersedia: http://carbon.cudenver.edu/~mryder/itc_data/idmodels.html [16 Januari 2004]

Scarcella, R.C., Oxford, R.L. (1992). *The Tapestry of Language Learning: The Individual in the Communicative Clasroom*. Boston: Heinle &

Heinle Publishers.[OnLine].Tersediahttp://www.richmond.edu/~terry/ Middlebury/motivation.htm [5 Maret 2007]

Shernoff, David J, Csikszentmihalyi, Mihaly. Schneider, Barbara & Shernoff, Elisa Steele. (2003). *Student Engagement in High School Classrooms from the Perspective of Flow Theory.* [Online].Tersedia: http://www.qlrc.org/ pmachine/more.php?id=10_0_1_0_M [20 September 2006]

Shneiderman, Ben. (1994). *Education by Engagement and Construction: Can Distance Learning be Better than Face-to-Face?.* [OnLine]. Tersedia: http// www.hitl.washington.edu/scivw/EVE/distance.html. [20 September 2006]

Smith, M. C. (1997). *Adults'Engagement in Reading: A Test of Engagement Theory.* [OnLine].Tersedia: http : // www. cedu. niu. Edu / ~ smith / papers / engagement. htm [20 September 2006]

Smith, M. K. (2005). *Learning Theory.* [On Line]. Tersedia: http://www.infed. org/biblio/b-learn.htm [25 Januari 2007]

Stearns, Peter. (2001). *Why Study History?* [On Line]. Tersedia http://www. Theaha.Org/pubs/stearns.htm [5 Februari 2004]

Stearns, Peter. (2003). *Benchmarks for Professional Development in Teaching History a discipline.* [On Line]. Tersedia: http://www.historians.org/info/ contact.cfm?u=nfrankel [22 Juni 2004]

TIP. (1998). *Subsumption Theory (D.Ausubel).* [Online]. Tersedia: http://www. Lincoln.ac.nz/educ/tip/sc.htm. [5 Februari 2004]

Wikipedia.(2007).*Learning*.[OnLine]. Tersedia http://en.wikipedia.org/wiki/ Learning [25 Januari 2007]

Yunus, Fallah. (2004). *Penggunaan Komputer Untuk Pendidikan.* [On Line] Tersedia: http://guruvalah.20m.com/artikel_pendidikan2.html [30 Januari 2004]