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Online Based Innovative Education and Learning Model to Build English Learning Attitudes, Interests and Outcomes of Brawijaya University Students Malang

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Abstract: ***Educational technology experts in the development and applications with innovative learning models, to apply innovative learning-based character education in giving emphasis at STAD type Cooperative Learning and Project Based Learning (PjBL) by comparing attitudes, interests and student learning outcomes in English courses. The purpose of this study was to produce online-based education and Innovative Learning models in Cooperative Learning Type ofStudent Teams-Achievement Divisions (STAD) and Project Based Learning (PjBL) on English learning attitudes, interests and outcomes of e-learningbased TOEFL at English Education Department students of BrawijayaUniversityMalang. The methodology is by using the pre-test, mid test and post-test design.Analysis of one way ANOVA and SEM using Partial Least Square (PLS) software.The results showed that treatment of three TOEFL tests namely pre-test, mid-test, and post-test in the control class and experimental class in the Project Based Learning (PjBL) learning model had differences. The TOEFL pre-test score average in the experimental class is 344.71 with score ranging from 300-397 and standard deviation of 29.386. While the TOEFL mid-test scoreaverage in the experimental class is 345.46 with score ranging from 300-380 and standard deviation of 20.587. The TOEFL post-test score average in the experimental class is 360.83 with score ranging from 303-400 and standard deviation of 24.146. Cooperative Learning models of Student Teams-Achievement Divisions (STAD) and Project Based Learning (PjBL) are able to improve student attitudes, interests, and learning outcomes, STAD p-value of 0.019 and PjBL p-value of 0.026. The study results are expected to develop multidisciplinary study in environmental science and its sustainability, especially its relevance to online-based innovative education which is one of the worldattention to run the industrial revolution 4.0 and online-based learning application.***

Keywords: Online-Based Innovative Learning, Attitude, Interest in Learning Outcomes in English

1. Introduction

Character education has been widely implemented in other countries such as the US government is very support the character education program which shows the existence of education policy in every states which gives large enough for design and implementation of character education since at the basic education level. Most character educational implementation programs in America is done through an experimental study to develop the students character (Kamarudin, 2012). The study results of Monk from Kingwood Middle School at Humble, Texas, conducted by educator to participant before and after implementation of character education (Lesson in character) based curriculum. According to Wibowo (2013) and Madison stated one of constitutional setter of American States, said "the character of a nation is determined by the character of its people". Main component of character is value system or value which is built and in grown by the citizens. Important values that are developed became character, namely: discipline, responsibility, respect and obedience, hard work, empathy, self confidence and communicative.

Lickona (1991) argues that to educates good character and values to learners is needed to integrated approach between three components as follow namely: (1) moral knowing, which includes: moral awareness, knowing moral values, perspective-talking, moral reasoning, decision making and self-knowledge , (2) moral feeling, which includes: conscience, self esteem, empathy, loving the good, self-control, humility, and (3) moral action , which includes: competence, will, and habit. Learners will have competence, strong will and habits in carrying out good moral values. The three integrated components expected to be able to increase national independence, improve national competitiveness and able to contribute the development of world civilization. Education is very important when talking about changing embedded values for sustainability. Sustainable development recognized as challenge to change social, economic and environmental conditions which meet the needs of present generation without compromising the needs of future generation.

The Indonesian government implements three important policies relating to environment conservation efforts in the successive period and almost simultaneously. First policy, namely the Adiwiyata which was announced on February 21, 2006 up to now still develops. The second policy, is the character education policy that was initiated May 11, 2010 is still continuing and innovating. The third policy, namely policy for sustainable development that has been incorporated into educational institutions, both formal and informal, and non-formal by Ministry of National Education from year 2011 to this time is still continuing and innovating. Education modelfor sustainable development has occurred and becomes reference for other country, especially

in the Asia Pacific region (Ryan at al., 200). Currently in Indonesia is developing innovative research models, learning models that are developed by lecturers by developing the exiting learning models. Innovative learning is developed by collaborating the learning model with experiences. The results of learning development technically easy to implement so that lecturers are easy to apply it in learning.

Shoimin (204) in his book, there are 68 innovative learning models in the curriculum 2013 and several learning models that are relevant to SCL including cooperative learning, problem-based learning, project-based learning, group discussion, contextual learning, role play and simulation, discovery learning, self-directed learning, and collaborative learning. However the learning models above often overlap with each other, both in terms of terms used and in learning implementation practice. The term contextual learning as learning model here is aligned with problem-based learning, whereas is in CTL itself, problem-based learning which the core is problem solving is important part of CTL. The term use also shows the emphasis of the intended model. For example, inside problem-based learning is the problem. In this model learning begins by displaying problems in front of students, then all learning activities directed to solve the problem. While is in CTL, emphasis on authenticity of learning, namely that learning must be real according to with what happens everyday, where in it there are problem solving activities. In the model of problem based learning it is very possible to do in groups, and thus means also carried out cooperative learning. Another example, in the cooperative model, it highlights the group work activity, which is expected to have impact on the pillar development of learning to live together optimally. Because of that, even though the name remains is needed, but in selecting the model used, teachers should base on the learning objectives (basic competencies and indicators) that have been predetermined.

This study using cooperative learning model ofSTAD type as cooperative learning model which issimple and model that is widely used in cooperative learning. Essential part of the model is the student works at group to learn from friends and teaches his friend (Slavin in Asma, 2006). Besides that, learning that can help student to have creativity think, solving problem, and interaction and help in investigation that leads to problem solving of real problems are Project-Based Learning (PjBL) or project-based learning (Thomas, 999; Esche, 2002; The George Lucas Educational Foundation , 2005; Turgut, 2008). Project-based learning can stimulate motivation, process, and increase student study achievement by using problem related to particular subject in real situation. This research aims to produce onlinebased innovative education and learning modelin the Cooperative Learning of Student Teams-Achievement Divisions (STAD) and Learning Project Based Learning (PPA) Types toward the learning attitudes, interests and outcomes of e-learning based TOEFEL of English Education Department students in subject of English in Brawijaya University Malang.

2. Methods

This research is quasi-experimental research with research design of quantitative approach that uses pre test, mid test and post test. The study subjects were 65 students, English Education Department at subject of English in Brawijaya University Malang of Semester VII in 2017/2018 academic year. Sampling method in the study used purposive sampling, namely non random sampling where the researcher determined sampling by setting special features and GPA 2.75 according to research objective so that it is expected able answer research problem.

E-TOEFL Test is used on Pre, Mid and Post Test to find out student learning outcomes before and after treatment. This E-TOEFL Test is valid (valid, reliable, and practical). So there is no need to calculate the Content Validity of the test that is in accordance with it University curriculum, and the items validity from the TOEFL need not be doubted because this test has been used in all countries, moreover the practicality of this instrument is very practical easy to read, understand, and accompanied by answers so that all assessors in all countries will give the same value to the same work Sharpe, (2008); Miranda et al, (2012). Videos are used for TOEFL material and recording of images, especially the time of treatment by using Cooperative Learning model of Student Teams Achievement Divisions (STAD) and Project Based Learning (PjBL) learning models.

To answer the problem formulation regarding TOEFL test scores of English Education Department students of Brawijaya University Malang is to compare the score of Pre-Test, Mid-Test, and Post-Test on the application of conventional models and Cooperative Learning models ofType Student Teams-Achievement Divisions (STAD). In thisstudy, the independent variable is the application of Cooperative Learning of Type Student Teams-Achievement Divisions (STAD) and Learning Project Based Learning (PjBL).

3. Results and Discussion

Profile of Student Learning Attitudes, Interests and Outcomes at English Subject

In the experimental class, the minimum post-test score was 380 and maximum 490 with average score 450.06, while in the control class, minimum post-test score was 450 and maximum 510 with average score 476.67. Analysis of the English language skills comparison of respondents and outcome comparisons of Learning Model of control class with *Cooperative Learning* Student *Teams-Achievement Divisions* (STAD) types were described in Table 1 below.

Table 1: Comparative analysis of English language skills with two different Learning Models at STAD in the English Education Study Program at BrawijayaUniversityMalang

Respondents		Experiment Class	Control Class
		35 people	30 people
TOEFL Pre Test Score	Minimum	300	400
	Maximum	397	470
	Mean	344,71	438.27
	Delta Mean		93,56
	Std. Deviation	29,368	20,811
TOEFL Mid Test score	Minimum	300	420
	Maximum	380	475
	Mean	345.46	452.07
	Delta Mean		106.61
	Std. Deviation	20,587	16,719
TOEFL Post Test Score	Minimum	303	410
	Maximum	400	475
	Mean	360.83	450.23
	Delta Mean		89.4
	Std. Deviation	24,146	15,971

It is known that the experimental class and control class are class A semester VII English Education of Brawijaya University using Cooperative Learning of Type Student Teams-Achievement Divisions (STAD) withstudents number as many as 65 people each. In the experimental class, the minimum pre-test score was 300 and maximum 397 with average score 344.71, while in the control class, the minimum pre-test score was 400 and maximum 470 with average score 438.27. In class experiment, the minimum mid-test score was 300 and maximum 380 with average score 345.46, while in control class, minimum mid-test score was 420 and maximum of 475 with average score 452.07. In the experimental class, minimum post-test score was 303 and maximum 400 with average score 360.83, while in the control class, minimum post-test score was 410 and maximum 475 with average score 450.23.

Evaluations conducted on learning English state that as much 60% English lecturers view that student learning outcomes in the subject matter taught so far is quite satisfying (already fulfilling competency standards and the learning outcome you plan in RPS and RPP). However, improvement efforts need to be carried out as improvement effort. According to Biggs (2011), improvements in the education implementation, especially in method of delivering teaching materials isvery important to do. As many as 80.0% of English lecturers strongly agree that the application of new curriculum requires the application of different Learning Model from what has been applied by most lecturers in universities.

The analysis results also state that as many as 60.0% of English lecturers strongly agree that efforts to increase attitudes, interest in studentslearningis by changing the learning model applied so far. Learning Model is the key to the educationprocess success. The existence of various information media and computer support in the classroom makes it possible for various learning creations, such as online-based interactive learning. However, a good method is to develop based on PjBL and existing knowledge and local wisdom. Survey also shows that 100% of English lecturers strongly agree that one of efforts to improve the students ability to cooperate, think critically, responsibility and social empathy is through online-based method with Project Based Learning (PjBL).

Based on the results of the questionnaire for students, obtained that 61.5% students agreed that the learning implementation so far guarantees the character education implementation which includes, Religious, Independent, Nationalist, Mutual Cooperation, Integrity as stated lecturers in Syllabus and RPS in the first face to face lecture. As many as 13.8% of students respondents in the survey stated that the learning implementation had been neutral delivered by lecturers in syllabus and RPS in the first lecture face to face. 64.6% of students agree that the results of student learning in accepted courses are quite satisfying.

As many as 15.4% of the student respondents in the survey agreed that students learning outcomes were quite satisfying. 49.2% of students agree that they feel monitored in order and discipline inside and outside class in the process of character education implementation in universities. As many as 30.8% of student respondents in the survey stated neutral that they felt monitored in order and discipline inside and outside classroom in the process of character education implementation at the higher education. As many as 30.8% of the student respondents in the survey stated that they felt neutral monitored in order and discipline inside and outside the classroom in the implementation process character education in higher education.

Questionnaire data shows that 72.3% of students strongly agree and the remaining as many as 27.7% of students agreed that the learning outcome influenced by good learning processes and methods. Questionnaire data shows that 78.5% of students strongly agree and the remaining 21.5% of students agree that the implementation of example habituation by lecturers so important that students get reinforced good behavior. 87.7% of students agreed that they felt agreed with the implementation of new project-based curriculum and learning methods that have been applied up to now by most lecturers in universities today. 9.2% of the respondents were students in the survey stated neutral that they felt neutral with the adoption of new curriculum project-based and learning methods that have been applied by most lecturers at higher education. Questionnaire data shows that as many as 56.9% of students strongly agree and the remaining 43.1% that they feel interested and get good learning outcomes due to using innovative learning methods. 83.1% of students agreed that they were feel the ability to work together, think critically, responsibility and social spirit that you feel now it's feasible and appropriate. 10.8% of the student respondents in the survey stated that they were neutral that they feel the ability to work together, think critically, responsibility and have a social spirit you feel right now is appropriate. For cooperative methods, as many as 66.2% of students agreed that the implementation of the Cooperative Learning model of STAD type and the Learning Project Based Learning (PjBL) in the learning process of E-Learning based TOEFL is one of the effective efforts to improve student learning outcomes. This proves that this study is important where as many as 73.8% of students feel agree with the application of the Cooperative Learning of Student Teams-Achievement Divisions (STAD) and PjBL

(Project Based Learning) learning in improving learning attitudes, interests and outcomes.

Influence of the Application of Learning Models on Learning Attitudes, Interests and Outcomes of English Education

Relationship between two learning models, namely conventional class cooperative learning of Student Teams-Achievement Divisions (STAD) and Learning Models PjBL (Project Based Learning) for student learning outcomes and interests. One way ANOVA test results on the experimental class of STAD model has sig value of 0.012. Because sig <0.05 (0.012 <0.05) it can be concluded that H1 was accepted, meaning the treatment effect of the three TOEFL tests namely pre-test, mid-test, and post-test in the experimental class on the STAD model are different, or there are significantdifferences.

The results of the one way ANOVA test in the STAD model control class thesig value was 0.007. Because sig <0.05 (0.007 <0.05), it can be concluded that H1 was accepted, meaning the treatment effect of the three TOEFL tests namely pre-test, mid-test, and post-test in the control class in the STAD model was different, or there were significant differences. One way ANOVA test results in the experimental class the PjBL model sig value was 0,000. Because sig <0.05 (0,000 <0,05), it can be concluded that H2 was accepted, meaning the treatment effect of the three TOEFL tests namely pre-test, mid-test, and post-test at the experimental class on the PjBL model was different, or there were significant differences. Test results above shows that in the PjBL model control class the sig value was 0.031. Because sig < 0.05 (0.031 <0.05), it can be concluded that H2 was accepted, meaning the treatment effect of the three tests The TOEFL, the pre-test, mid-test, and post-test in the control class on the PjBL model were different, or there were significant differences.

Influence of STAD and PjBL Learning Models Implementation on Student
Learning Attitudes, Interests and Outcomes

Based on Table 2, it can be seen that the implementation of conventional method of Cooperative Learning of Student Teams-Achievement Divisions (STAD) type has effect on student learning attitudes, interest with a p-value of 0.019 which was large influence between cooperative learning of Student Teams -Achievement Divisions (STAD) on e-learning-based toefl learning attitudes, interests, and outcomes of 0.303.

Table 2: Hypothesis Test Results of STAD and PjBL Learning Models Toward Student Learning Attitudes, Interests and Outcomes

Hypothesis	Coefficient	T count	P-Values
STAD Model of E-Learning Based TOEFL Learning Attitudes, Interests, and Outcomes	0.303	2,364	0.019
Model PjBL of E-Learning-Based TOEFL Learning Attitudes, Interests, and Outcomes	0.433	2,244	0.026

The conventional method of cooperative learning of Student Teams-Achievement Division (STAD) which have characteristics such as students is passive recipients of information, truth is absolute and knowledge is final, lecturers are determinants of the learning process, monitoring through observation and intervention is often not done by lecturers during group learning underway, lecturers act as instructors and decision makers, the learning concept is top down, proven to be unable to improve student motivation. Traditional learning that applies individual learning and interaction between students is lacking and no groups can cooperate. Social skills are often indirectly taught to make students more selfish or individualistic and more competitive.

The conventional method of cooperative learning of Student Teams-Achievement Divisions (STAD) can lead to student interest in learning, because interest is one of the main supporters of successful learning. Sadirman (2006) means that interest is one of the main factors for achieving learning success. As Gie (2002) stated "that studies in America regarding one of the main causes of study failure are lack of interest because lecturers still use conventional methods". The Project Based Learning (PjBL) learning model on e-learning-based TOEFL learning attitudes, interests, and outcomes has influence with 0.026 p-value meaning that there was significant influence between Project Based Learning (PjBL) on attitudes, learning interest of semester VII TOEFL learning of English Education Department of Brawijaya University Malang. The influence of Project Based Learning (PjBL) on e-learning based TOEFL learning attitudes, interests, and outcomes was 0.433.

4. Conclusions

The conclusion of this paper is Cooperative Learning models of Student Teams-Achievement Divisions (STAD) and Project Based Learning (PjBL) are able to improve e-learning-based TOEFEL learning attitudes, interests, and outcomes and the effect was 0.303 and 0.433.

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