DIGITAL LEARNING USING BLENDED POE2WE MODEL IN ENGLISH LESSON FOR FACING 21ST CENTURY CHALLENGES

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ABSTRACT

This study aims to (1) describe the steps of Blended POE2WE model in English lesson; (2) test the effectiveness of the Blended POE2WE model in English lesson, and (3)describe the attitudes and activities of teachers and students when implementing the Blended POE2WE model in English lesson at one of the senior high schools in Ciamis, Indonesia. The method used in this research is mixed method. Data collection techniques used in this study are questionnaire, observation and documentation. *Likert* scale is used to measure attitudes, opinions, and perceptions of teachers and students. To measure the effectiveness of the POE2WE blended model in English lesson, a t-test was used using SPSS software with the provision that $t_{count} > t_{table}$. The results show that the steps of learning using Blended POE2WE models were in accordance with 21st century competence (4C). The t-test on the final test between the model and control groups in each class is as follows: (1) t-test on the final test of class X Social 2 with the X Social 5 is t = 13.189; (2) t-test on the final test of class X Social 3 with the X Social 5 is t = 14.946; (3) t-test on the final test of class X Social 4 with the X Social 5 is t = 6.290. Based on the data analysis results, it can be concluded that the final ability test for students in the control class has a significant difference ($t_{tabel} > 1.66$) so that this model is effective to use for improving student achievement in English lesson. Meanwhile, the students' attitudes towards the implementation of the POE2WE blended model showed improvement, by which students' attitudes towards the learning process is 60.18%, towards the teaching materials is 54.63% and towards the English teachers is 71.29%.

Keywords : Blended POE2WE, 21st Century Competence, English Lesson

INTRODUCTION

In Indonesia, the learning process in the 2013 curriculum applies 21st century skills, which is better known as 4C (critical thinking and problem solving, collaboration, communication, creativity and innovation), to prepare human resources capable of facing 21st century challenges. In facing those challenges, one of the skills that must be possessed by students is communication skill. To support that skill, students need to master at least one foreign language, especially English.

Based on The ministry of Education and Culture's Rule Number 24 of 2016, learning is designed to provide experience in using English texts to understand and apply factual, conceptual, and procedural knowledge related to phenomena and events visible to the eye, through speaking, listening, reading and writing activities in the realm of concrete and abstract. Teaching English at the high school level focuses on increasing the competency of students

to be able to use the language for achieving communication goals in a variety of contexts, both oral and written.

Although English has been studied since the early level in Indonesian school, there are still many high school students who have difficulty in expressing and composing meaning in the text, which include choosing and using vocabulary, pronunciation, word pressure, grammar, and other linguistic elements. It is shown by the result of English Pre- test when they entered high school. Most of the students got mark under minimum completeness criteria. For instance in a senior high school, most new students who took that pre-test scored under 75, which is the minimum completeness criteria for English subject in this school. The problem can be solved if the teacher as an educator has creativity and innovation in developing the learning process in the classroom, since it a very important part of education. The success of the learning process is inseparable from the ability and skills of teachers to use models, methods, and learning media. The selection of models, methods, and appropriate learning media in the learning process can improve the quality of learning, so that learning objectives can be achieved.

In addition, there are internal and external challenges that must be faced by the students in the 21st century. External challenges are those related to the current condition of globalization and various issues concerning the environment, technological and information advancements, the rise of creative industries, culture and the development of education at the international level (Ministry of Education and Culture, 2017). One of the external challenge that must be faced by students in the 21st century is the advancement of digital technology. It cannot be denied that the digital era has a positive impact on education, for example alternative sources of learning and learning media emerge. The learning process that was originally only done in the classroom, has now begun to be replaced by online means. Online learning is the implementation of learning that is fully carried out with the help of internet technology and does not require any face-to-face activities. In this learning, students can learn from anywhere and it can be done either synchronously (directly) or asynchronously (indirectly).

Furthermore, there is also blended learning that combines classical teaching (face to face) with online teaching. Blended learning offers more flexibility in terms of time, place, and variety of learning methods compared to online and face to face methods. The development of digital technology has led to a change in the educational paradigm from teacher centered to student centered. This phenomenon also occurs in the process of learning English at one of senior high schools in Ciamis, Indonesia.

In this study, observations and questionnaires were previously conducted to determine the initial conditions before the use of the POE2WE blended learning model. At this stage, observation and dissemination of questionnaires given to respondents (students and teachers) regarding needs analysis. To obtain this preliminary data, the researcher involved 10 people consisting of 5 students and 5 teachers. The results of the needs analysis questionnaire to five English teachers showed that 60% of learning process sets arranged by printing, 95% of learning fully use the lecture model, 100% of learning sometimes uses digital learning innovation, 40% of teachers apply 4C in teaching while 60% do not.

The results of the questionnaire need analysis of five students showed that 95% of teachers taught monotone and 5% interestingly, 95% used lecturing methods of teaching and 5% used methods of discussion, 100% of students wanted other learning resources besides books and worksheets, 100% of students felt assessment was only measured cognitive aspect, 100% of students wanted that learning should use innovative learning methods or models, and 100% of students wanted effective assessment.

Based on those data, there are several factors that have caused student learning outcomes to be suboptimal in English lesson. Factors that might be the cause include the inappropriate use of learning model, the material delivered is too abstract, the way of teaching is less interesting, the activities of students in the classroom are less optimal, and the inappropriate use of learning media. This is in line with the opinion of Sari (2013) that prove blended learning strategies succeed in increasing learning independence, critical thinking, and

learning achievement. This is based on an improvement in the ability of students to learn independently between before the implementation of the Blended Learning strategy that is 14.3% and after the last cycle the implementation of blended learning, which is 85.7%. Besides, the improvement in critical thinking skills before the implementation of blended learning is 19.3% and after the implementation of blended learning is 88.6%. Besides, student learning achievement is also increase by 92.9%.

Therefore, one way to improve student learning outcomes in English language and literature subjects is by using the blended learning. Here the researcher used POE2WE blended learning model. Where this blended model combines classroom and online learning, to improve students' abilities in terms of predicting, observing, explaining, elaborating, writing, and evaluating. Based on this background, the researcher is very interested in using the blended POE2WE model in English lesson as an alternative to improve students' understanding and learning outcomes at the tenth grade of senior high school, and prepare students to be able to face both internal and external challenges to face the 21st century.

LITERATURE REVIEW
A. Digital Learning

In this digital era, science and technology are developing rapidly. This development has an increasingly open impact the spread of information and knowledge from and to all over the world through the boundaries of distance, place, space and time. The reality in human life in this digital age will always be related to technology. Technology is essentially a process to get a more useful value from the products itself. Technology has influenced and changed people in their daily lives, so that if now 'technology is stuttering' it will be too late in mastering information, and will also be left behind to obtain various opportunities to advance. Information has an important and real role, in the era of information society.

E-Learning is a term that we can find in the world of computers or the internet. The word e-learning consists of 2 (two) terms, namely "e" which means "electronic" and "learning" which means "learning". So, e-learning can be interpreted as a learning system that uses electronic devices as a medium of learning (Rahmasari & Rismiati, 2013: 27). Furthermore, it is said that the e-learning system is expected to not only replace conventional teaching methods and materials but can also add new methods and strategies in the learning process.

The application of learning through internet (e-learning), is a new media that can overcome the passivity of students. According to Sadiman, Rahardjo, Haryono, & Harjito, (2006: 17) with the use of appropriate learning media, it is very useful to:
a. Add excitement to learning,
b. Enables direct interaction,
c. Enable students to learn independently. By which, independent learning is a way of learning done by students to freely determine their learning goals, plan their learning processes, study strategies, use the learning resources chosen, make academic decisions, and carry out activities to achieve learning goals. Therefore independent learning requires motivation, tenacity, seriousness, discipline, responsibility, willingness and yearning to develop and advance in knowledge. (Yamin, 2011: 107)

Furthermore, the application of e-learning can provide benefits to students in several ways, namely:
a. It can increase student interaction with each other and with teachers;
b. Provide the availability of learning resources that are not limited;
c. E-learning that is properly developed will be effective in improving the quality of graduates and the quality of educational institutions;
d. The formation of a learning community that interacts with each other, enables the process of giving and receiving and it is not limited to one location;

e. Improving the quality of teachers, because it is possible to explore information more broadly and even unlimited;

f. Online media; i.e. self-learning media that are delivered and can be accessed online via podcast, streaming media (video streaming, audio streaming), and web pages.

One of the reforms that can be done to overcome problems in the education sector is the learning model used by the teacher in the learning process. The learning model refers to the learning approach that will be used, including teaching objectives, stages in learning activities, learning environment, and classroom management (Arends in Trianto, 2010: 51).

Meanwhile, lately digital learning has received much attention and discussion in various forums as a potential mode of education to make inroads in the face of shifting educational paradigms according to the current digital era. Digital learning is basically an information technology based learning using the internet / web. This system is developing rapidly and broadly and substantially influencing the supporting components of education. For example the emergence of various forms of digital teaching materials, assessment of learning outcomes, digital-based learning scenarios, and so forth.

Schwartzbeck & Wolf (2012: p.1) revealed that digital learning is "... any instructional practice that is effectively using technology to strengthen the student learning experience. Digital learning encompasses a wide spectrum of tools and practices ... " The intended tools and practices can include (a) interactive learning processes using various digital sources, in the form of learning objects or software that can engage students in learning academic substance; (b) availability of digital access to various data information and documents for students; (c) personalized learning; (d) assessment of learning outcomes based on computer and online; (e) learning scenarios that intensify collaboration and communication between students and with tutors and experts (Alliance for Excellent Education, 2012, p.11).

B. POE2WE Learning Model

POE2WE learning model is found by Nana in his dissertation at Sebelas Maret University in 2016. This model is implemented in several subjects such as social, science and language. The POE2WE learning model is a learning model developed to find out students' understanding of a concept with a constructivist approach (Nana, 2019: 15). This model builds knowledge by first sequencing the process, predicting and/or predicting solutions to problems, making observations to prove predictions, explaining observations obtained orally or in writing, making examples of applications in daily life, writing out discussion results, and making evaluations about understanding students both verbally and in writing.

This POE2WE learning model allows students to be more active in the learning process, because this model provides the opportunity for students to build their knowledge based on direct observation or experimentation which is then communicated in oral and written form, so that students are more masterful and understand the concepts that will impact on improving student learning achievement. The steps for learning the POE2WE model are as follows:

1. Prediction

At this stage students make a prediction or initial guess on a problem given by the teacher. The prediction stage in this model is identical to the engagement phase in the constructivist approach. At this stage, the teacher asks questions, presents pictures, or performs demonstrations that can encourage students to be able to make predictions or initial allegations of a problem.

2. Observation

At this stage, students prove the initial prediction or guess that has been made by making observations or experiments directly. The stages of observation in this model are identical to the exploration phase of the constructivist approach.

3. Explanation

At this stage students provide an explanation of the results of observations or experiments that have been carried out. At this stage students discuss with their groups about their findings in the previous stage, whether there are similarities or differences between predictions with observations or experiments. Then students present the results of the discussion in front of other groups. If the results of the discussion state that there are differences between predictions and observations or experiments, then the teacher guides, helps, and provides an explanation to students why the predictions are not appropriate. Meanwhile, if the predictions and observations are proven correct, the teacher guides and provides explanations to strengthen the observations that have been made. The explanation phase in this model is identical to the explanation phase in the constructivist approach.

4. Elaboration

At this stage students make examples or apply the concepts they already have in their daily lives. At this stage the teacher encourages students to interpret new concepts in new situations, so students better understand the concepts taught by the teacher. This stage is the development of a constructivist approach.

5. Writing

This stage is the development of the TTW model. At this stage students communicate in writing and reflect their knowledge and ideas. Learners write the results of the discussion and answer the questions that are on the LKPD (Student Activity Sheet). In addition, students also make conclusions and report on observations.

6. Evaluation

This stage is the development of a constructivist approach. At this stage the teacher evaluates the knowledge, skills, and changes in students' thinking processes. The form of evaluation can be in the form of written tests or oral tests about the material that has been taught.

These stages are then elaborated into learning activities between the teacher and students as shown in Table.1 below:

Table.1 Learning Activities of the POE2WE Model

Phases	Teacher's Activities	Students' Activities
Prediction	- Conveying learning objectives. - Asking questions to students - Inventory predictions and reasons put forward by students.	- Paying attention to the explanation from the teacher. - Predicting answers to questions from the teacher. - Discussing the results of predictions.
Observation	- Encouraging students to work in groups. - Distributing students' work sheet. - Overseeing the experimental activities carried out by students.	- Forming a group. - Experimenting. - Collecting experimental data. - Conducting group discussions. - Summing up the results of an experiment.
Explanation	- Encouraging students to explain the results of the experiment. - Asking students to present the results of their experiments. - Clarifying the results of students' experiments. - Explaining new concepts / definitions.	- Expressing opinions about new ideas based on experimental results. - Responding to presentations from other groups. - New concepts from teachers can be accepted.

	- Expressing opinions about the results of the experiment.	
Elaboration	- Providing problems related to the application of concepts. - Encouraging students to apply new concepts in new situations.	- Applying new concepts in new situations or everyday life.
Writing	- Giving students an opportunity to take notes.	- Recording the results of the teacher's explanation and group discussion.
Evaluation	- Asking questions for the assessment process - Assessing students' knowledge. - Providing feedback on students' answers.	- Answering questions based on data. - Demonstrating ability in mastering concepts.

C. Blended Learning

Blended learning is a term of mixing between conventional learning models that are usually done face to face with internet-based learning models commonly known as e-learning (Uno, 2011). According to Suyono (2011), this learning model is an inexpensive and effective way of learning. This learning model can be applied to anyone, especially those who have high mobility and find it difficult to meet face to face with educators or lecturers. This learning model is also a shared learning tool for those who feel they need additional material.

Blended learning refers to a combination of different learning environments. This combination can unite asynchronous and synchronous learning (Yamagata-Lynch, 2000) as well as face to face learning and distance learning (Moebs & Weibelzahl, 2006). Blended learning gives teachers the freedom as educators to use a wide variety of integrated traditional and modern learning methods. This indicates that blended learning is traditional learning that is equipped with an electronic format. This electronic format refers to e-learning. Therefore, blended learning aims to synthesize learning between traditional and modern methods so that it becomes a combination of integrated learning and creates a high, efficient and interesting impact. The existing activities in blended learning are as follows:

a. Face to face learning (face to face learning in class)
b. Video Conference (face to face online)
c. E-learning (activities carried out by utilizing learning content management software)

Blended Learning combines various teaching methods utilizing technology. Existing virtual technology can be utilized for the blended learning process, so it can be concluded that blended learning can be applied effectively by adjusting conditions agreed by all parties. The following is a good time to use blended learning, i.e.

a. The teaching and learning process is not only face-to-face, but increases learning time by utilizing cyberspace technology.
b. Simplify and accelerate the process of non-stop communication between teachers and students.
c. Students and instructors can be positioned as learning parties.
d. Assist the process of accelerating teaching.

The development of information technology is very rapid, especially the development of internet technology also encourages the development of the concept of distance learning. The characteristics of internet technology that can always be accessed anytime, anywhere, multiuser, as well as offering all the conveniences have made the internet a very appropriate medium for the development of further distance education. This is why for now the blended learning system is very well used in Indonesia so that learning can be controlled more conventionally.

D. Blended POE2WE

The POE2WE theoretical framework is built on the views of several theories that form the POE2WE learning model framework. The POE2WE learning model combines three types of interactions which include social interaction, content, and educators that can be explained as follows:

1. The first type of interaction is described by educators as facilitators of active learning and face to face learning that occurs in a social setting. However, before educators interact with students, educators design and manage learning sequences and select appropriate media during the learning process. Then, educators use e-learning (in this case for example, *http://online.sman1ciamis.sch.id/moodle*) to conduct distance learning, task collection, and online communication. When the learning process takes place, students can communicate with other students and educators simultaneously, so that interpersonal communication and feedback will occur.

2. The second interaction is the content of the interaction that bridges cognitive interaction with the concepts and skills contained in the learning module. The module is equipped with instructions for using and mind mapping each topic, so the learning objectives are clearly illustrated.

3. Social interaction is intended as the ability of students to understand themselves as a positive interdependent community. This interaction can occur throughout the entire learning process because they work on tasks that require collaboration. In the dimension of interaction (social discourse), students are divided into groups to help build shared knowledge through giving responses to each other, this is a high cognitive level achievement (Aviv 2000).

The use of the POE2WE blended model is inseparable from the use of information technology (digital). In this study, researcher used e-learning web as a learning medium. This web-based e-learning presentation allows learning information to be real time and interactive.

METHOD

The method used in this research is mixed methods research. According to Creswell (2015:2), mixed method research is an approach to research in the social, behavioral, and health sciences in which the investigator gathers both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strength of both sets of data to understand research problems.

The research design used in this study is sequential exploratory, which is collecting and analyzing qualitative data then collecting and analyzing quantitative data. This study emphasizes more on qualitative methods. Merging quantitative data with qualitative data is based on the results that have been obtained previously from the first stage. This learning innovation study was carried out in 2019 at one of senior high schools in Ciamis Indonesia, with the research subjects are teachers and tenth grade students of that school.

Data collection techniques used by researchers are using questionnaire, observation and documentation. The questionnaire was distributed to research subjects to find out the responses of teachers and students about learning English by using the Blended POE2WE model. The researcher also observed and made documentation of the learning process in the classroom to see how it worked. To find out the steps of learning English and English literature at the tenth grade of senior high school, the researcher used a digital guide using the Blended POE2WE model. The first step is the students accessed the school e-learning website via the address *http://online.sman1ciamis.sch.id/moodle.* Then, students choose English material and choose the Blended POE2WE English Language and Literature menu. The menu provided learning, evaluation, and quiz material. The learning material menu on the e-learning web is aimed at students who want to learn and re-understand the material that was previously delivered in the class. The students choose Evaluation Using Blended POE2WE, then

students fill out the evaluation in accordance with the stages that must be done with the POE2WE learning model, which starts from prediction, observation, explanation, elaboration, writing, and evaluation. Students cannot pass one of the stages before filling out and completing it, because if students do not work in a sequence then the next stage cannot be done.

Researcher uses *Likert* scale to measure attitudes, opinions, and perceptions of groups of people about social phenomena that exist in schools. There are three reasons of why *Likert* scale is used. The first reason is because it makes it easy for respondents to answer the questionnaire whether they agree or disagree. The second reason is that it is easy to use and easily understood by respondents. The third reason is that visually using a *Likert* scale is more interesting and easily filled by the respondents.

Qualitative data analysis is done by grouping data according to the type of question components in the questionnaire. Quantitative data analysis is calculated using the percentage formula as follow:

$$P = \frac{(nx1)+(nx2)+(nx3)+(nx4)}{Nx\ 4}\ x100\%\ \ \text{(Sunu Priyawan, 2007:99)}$$

with:
P: percentage of answers
n: number of choices
N: number of answers
1,2,3,4: the weight given to the answer choices

Meanwhile, the assessment scores used in analyzing quantitative data are presented below:

Tabel 2. The Assessment Score

Score	Description Score
4	Very Positive
3	Positive
2	Doubt
1	Negative

To analyze qualitative data, the researcher analyze the data based on the results of observations, questionnaire distribution, and documentation. Then to measure the effectiveness of the use of the POE2WE blended model in English subjects, the researcher use quantitative data using t-test (SPSS software) with the provisions that if $t_{count} > t_{table}$ then this model is effective. Descriptive statistical analysis technique are also used to process data in the form of pre-test and post-test results, so that the effectiveness of the resulting product development is known as a consequence of knowing the increase in student learning outcomes about the material. Descriptive statistical analysis uses the t test.

FINDINGS AND DISCUSSION

In this study, observations and questionnaires are conducted previously to determine the initial conditions before the use of the POE2WE blended learning model. At this stage, observation and dissemination of questionnaires given to respondents (students and teachers) regarding needs analysis. To obtain this preliminary data, researchers conducted observations and disseminated questionnaires to 10 people consisting of 5 students and 5 teachers.

The results of observations and questionnaires about needs analysis given to teachers and students about learning English are: The results of the needs analysis questionnaire to five English teachers, resulting in 60% of learning material sets arranged by printing, 95% of learning is still use the lecturing teaching model, 100% of learning sometimes uses digital

learning innovation, 40% of teachers apply 4C in learning English and English Lesson while 60% do not.

The results of the questionnaire analysis of the needs of five students were produced as follows: 95% of teachers taught monotone and 5% taught interestingly, 95% of method used in teaching is lecturing and 5% used discussion method, 100% of students wanted other learning resources besides books and worksheets, 100% of students felt assessment only measures cognitive aspect, 100% of students wanted learning using more innovative learning methods or models, and 100% of students wanted effective assessment.

Based on the data, it is found that the learning process had not maximum yet, the researcher then tried to apply the POE2WE blended learning model in English lesson at the tenth grade of senior high school. The result of learning process is as follow:

Table 3. Pre-test and Post-test Results in the Experiment Group

No.	Class	Pre-test and Post-test Results
		t score
1.	X Social 2	25.075
2.	X Social 3	14.005
3.	X Social 4	25.005

Based on table 3, X Social 2 class got t_{count} 25.075. It showed that the $t_{count} > t_{table}$. Meanwhile, the t_{tabe} is 1.66. Then, after applying blended POE2WE model in this class, there is significant improvement in the students' English competencies. Class of X Social 3 class got t_{count} 14.005. It means that in this class also has significant improvement in the students' English competencies. Besides, class of X Social 4 got t_{count} 25.005. It also shows that in this class, the students have significant improvement in English Competencies. Thus, the use of the POE2WE blended learning model in English lesson has proven to be effective and has an effect on improving the English ability of the tenth grade students of senior high school.

Table 4. Frequency Distribution of Attitudes Score of Class X Social 2 Students towards Learning Process, Teaching Materials, and Teachers

Description	Attitudes Towards								
	Learning Process			Learning Material			Teacher		
	Score	F	%	Score	f	%	Score	f	%
Very Positive	4	16	44.44	4	22	61.11	4	18	50
Positive	3	20	55.56	3	14	38.89	3	18	50
Doubt	2	0	0	2	0	0	2	0	0
Negative	1	0	0	1	0	0	1	0	0
N		36	100		36	100		36	100

Based on Table 4 above, the data obtained shows that the attitudes of students of X Social 2 class towards the learning process by using the blended POE2WE learning model are 44.44% of students have a very positive attitude and 55.56% have a positive attitude. It means that the learning process using blended POE2WE learning model is interesting to the students. Meanwhile, the attitude of students of X Social 2 towards English teaching materials was obtained as much as 61.11% of students have very positive attitudes and 38.89% have positive attitudes. It means, the material given is interesting and fit the students need. Likewise, the attitude of students of X Social 2 towards English teachers are 50% of students have a very positive attitude and 50% have a positive attitude. It means that the way of the teacher conducted the instruction by using the blended POE2WE have good impression from the students.

Meanwhile, for the assessment of the attitude of students in class X Social 3 towards the learning process, teaching materials, and teachers are presented in the following table:

Table 5. Frequency Distribution of Attitudes Score of Class X Social 3 Students towards Learning Process, Teaching Materials, and Teachers

| Description | Attitudes towards | | | | | | | | |
| | Learning Process | | | Learning Material | | | Teacher | | |
	Score	f	%	Score	F	%	Score	f	%
Very Positive	4	26	72.22	4	19	52.78	4	30	83.33
Positive	3	10	27.78	3	17	47.22	3	6	16.67
Doubt	2	0	0	2	0	0	2	0	0
Negative	1	0	0	1	0	0	1	0	0
N		36	100		36	100		36	100

Based on Table 5 above, the data obtained shows that the students' of class X Social 3 attitude towards the learning process using the POE2WE blended learning model are 72.22% of students have a very positive attitude during the lesson and 27.78% have a positive attitude during the lesson. They were very interested in the lesson. As for the attitude of students of X Social 3 towards English teaching materials, 52.78% of students have very positive attitudes and 47.22% have positive attitudes. It means that the material given by the teacher are interesting for them. Similarly, the attitude of the students towards English teachers in particular are 83.33% of students have a very positive attitude and 16.67% have a positive attitude. It means that the way of the teacher conducting teaching and learning process by using this blended POE2WE learning model obtains good impression from the students.

Meanwhile, for the assessment of the attitude of students of class X Social 4 towards the learning process, teaching materials, and teachers are presented in the following table:

Table 6. Frequency Distribution of Attitudes Score of Class X Social 4 Students towards Learning Process, Teaching Materials, and Teachers

| Explanation | Attitudes Toward | | | | | | | | |
| | Learning Process | | | Learning Material | | | Teacher | | |
	Skor	f	%	Skor	F	%	Skor	f	%
Very Positive	4	23	65,71	4	18	51,43	4	29	82,86
Positive	3	12	34,29	3	17	48,57	3	6	17,14
Doubt	2	0	0	2	0	0	2	0	0
Negative	1	0	0	1	0	0	1	0	0
N		35	100		35	100		35	100

Based on the table 6 above, the attitude of students of class X Social 4 towards the learning process using the POE2WE blended learning model are 65.71% of students have a very positive attitude and 34.29% have a positive attitude. It is also indicates that the learning process is interesting. Whereas, for their attitude towards English teaching materials, 51.43% of students have a very positive attitude and 48.57% have a positive attitude. It means that the material given to the students is interesting. Likewise with the attitude of students of X Social 4 towards English teachers in particular, as much as 82.86% of students have a very positive attitude and 17.14% have a positive attitude. It means that the way of the teacher in delivering the lesson by using blended POE2WE have good impression from the students.

Based on the description above, it can be concluded that the POE2WE blended learning model is effective for improving student learning outcomes. This model teaches students to build their own knowledge in accordance with the steps included in the process. After using this learning model, students are more active in the learning process especially in finding concepts through direct observation.

Furthermore, the steps of learning undertaken by teachers and students using the POE2WE blended learning model are as follows:

1.   Students access the school's e-learning website in this link *http://online.sman1ciamis.sch.id/moodle*. Then, students choose English material and choose the Blended POE2WE English Language and Literature menu. The menu provides learning, evaluation, and quiz material. The learning material menu on the e-learning web is aimed at students who want to learn and review the material that was previously delivered in class.

2.   Students choose Evaluation using blended POE2WE. After that, students fill out the evaluation in accordance with the stages that must be done in POE2WE learning model, which starts from prediction, observation, explanation, elaboration, writing, and evaluation. Students cannot pass one of the stages before filling out and completing it, because if students do not work in a sequence then the next stage cannot be done. In detail, the learning process using this model is explained as follows:

   a. Prediction

   At this stage, a piece of picture is presented which students then make an initial prediction about. Students can explore images in accordance with previously acquired knowledge. By doing so, it can promote their critical thinking, which is one of the 21st century skills. They must fill in and complete this stage by submitting the prediction results, so that they can proceed to the next stage which is observation.

   b. Observation

   At this stage, students are presented with a complete picture. While on the previous stage only a piece of picture is presented. The goal is to present a complete picture to prove the students' prediction or initial guess. During this stage, students are directed and motivated to have 21st century skills, namely problem solving and collaboration. They work in accordance with the results of their observations then they can submit the result by clicking submit to proceed to the next stage, namely the explanation phase.

   c. Explanation

   At this stage students provide an explanation of the observations on learning English. Explanation from students can be done by deepening the subject matter from various sources, one of which has been provided on the e-learning web by clicking on the material menu. If the students' initial predictions or allegations are in accordance with the problem, the teacher mentions and provides additional explanations to reinforce the results done by the students. However, if students' initial predictions or allegations are not appropriate, the teacher helps students to find an explanation why the predictions are not appropriate through the discussion group forums that have been provided. At this stage, the skills that must be possessed by students are communication skills and collaboration. After completing the explanation phase by submitting the results of the process, the students can work on the next stage, elaboration.

   d. Elaboration

   At this stage, students make examples or try to apply concepts in everyday life. They can make sentences or paragraphs in the application of daily life in accordance with the material being taught. After working on this stage, students then proceed to the writing stage.

   e. Writing

   At this stage, students write down the results of the discussion and make conclusions about the material being learned. The skills that must be possessed by students at this stage are communication skills. After completing this stage, students continue on the evaluation stage.

   f. Evaluation

   At this stage students evaluate the material of English lesson that has been learned.

      Those stages of POE2WE is proven to be effective, since it gives positive contribution to foster students' English competencies, so that the learning outcome can be improved.

CONCLUSION

The application of the Blended POE2WE model to the English subject gives positive contributions in the teaching and learning process. This model involves several stages, which each stage enables the students to develop their 21st century competencies. At the first stage, the prediction stage, their critical thinking is stimulated. This stage gives students the opportunity to think critically about a problem given in learning. Additionally, problem solving skill is also supported in the observation stage, at which students fully observe a given problem. Accordingly, communication skill is also improved, since the students can work together with one another. Besides, students' creativity is also promoted. In this study, creativity refers to students' effort to look for learning resources related to the learning material provided. Furthermore, in Elaboration stage, students creatively apply the material learned in daily life. Then, in Writing stage, which is identical with communication, i.e. students communicate in writing what they have learned. Finally, students evaluate their understanding about the material that has been studied in evaluation stage.

In addition, the results of the t-test analysis at the final test between the model and control groups in each class are as follows: (1) t-test at the final test of class X Social 2 students with the final test of class X Social 5 students obtained the score of t = 13,189; (2) t test on the final test of class X Social 3 students with the final test of class X Social 5 students obtained the score of t = 14,946; (3) t-test on the final test of class X Social 4 students with the final test of class X Social 5 students obtained the score of t = 6,290. Based on the results of data analysis by comparing the t-test score, it can be concluded that the final ability test for students in the control classes have a significant difference. So, there is a significant difference in the use of Blended POE2WE models and conventional learning models (teacher centered) in English lesson. Therefore, this model is used effectively to improve student achievement in English Lesson at the tenth grade of senior high school.

Furthermore, this study also investigate the students' attitude towards implementation of the POE2WE blended model in English Lesson at the tenth grade of senior high school. The data obtained shows that mainly, students 'attitudes are "very positive", with details for students' attitudes toward the learning process is 60.18%, towards teaching materials is 54.63% and towards English Teachers is 71.29%. It means that students have positive response towards the use of POE2WE blended model during teaching and learning process. Based on those facts, it can be concluded that POE2WE blended model, which involves several stages namely Prediction, Observation, Explanation, Elaboration, Writing and Evaluation is effective to use in teaching and learning English at the tenth grade students of senior high school. Therefore, it also promotes the attainment of a better learning outcome.

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