Attitude Conception: The Role of Blended Learning in Environmental Education

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\textbf{ABSTRACT}

Technology transition stage in 21\textsuperscript{st} century try to reach the goal of elaborate the educational quality for knowledge transfer in learning process. Blended learning is interest variety of technologies utilization that combined from face-to-face learning and E-learning process. This study intends to convey the role of blended learning based on teacher’s perception with respect to attitude conception. The student attitude is the major affective factor to language instruction and become a predictor of successful language learners. Therefore, the presence of blended learning was providing opportunities for students to independently hold control of achieving the learning goals. Data was gained from 68 students and teachers as the fundamental facilitators or as the main controlled of attitude process in students by applying blended learning and students as a subject of instructional process. The data gained was analyzed qualitatively that create from observation and interview. The results of study were [1] blended learning is more appropriate than traditional learning, [2] percentages of blended learning for environmental education is frequently occurring on Self-Paced Learning which obtained 41\%, and [3] the role of blended learning seen from attitude conception that found on the students integrative motivation, instrument motivation, and attitude toward the environmental education. Thus, this study suggested controlled teacher’s perception for teaching that might help students for instructional technology skill by attitude from role of blended learning on preparing suitable digital literacy.

\textbf{KEYWORD}

Blended Learning, Traditional Learning, Attitude, Environmental Education

\section{1. INTRODUCTION}

Teaching in this period of encourage intake has become a significant challenge for educators to incorporate technology in language learning. Chronicle Research Service (2009) and U.S Department of Commerce (2010) report that due to their prosperity, students continue to demand increased access to the benefits of technology and to apply flexible asynchronous learning experience. In the 21\textsuperscript{st} century, rapid technological developments make students think the learning experience process is not necessarily in the classroom. They think by utilizing existing technology, the learning process can also take place and be made more delightful. Some students feel that using a face-to-face learning model is too old-fashioned or traditional while implementing E-learning in the learning process is not out-of-date and provides results that are in line with expectations and is more effective. But a learning process that only uses technology or that only applies E-learning cannot be fully successful. This is because the learning styles of students are different and teacher
role in fluency the learning process for basically students SLA. Furthermore, the teachers do not have primary guidance to identify the students ‘conceptual attitudes.

The learning process can be balanced by combining electrical learning (E-Learning) and traditional learning (face-to-face) instructional models. Teachers should play their roles to adjust a continuum from an informal to a traditional learning process as a guide, and facilitator to integrate the educational process (Brown, 2000; Ibrahim, et.al., 2013; Kelly, 2015; Rido, et.al., 2016; Richards & Rodgers, 2001; Sari, et.al., 2019). The teacher’s role has developed to provide appropriate guidance and feedback to students and ensure the successful use of E-learning and face-to-face learning model, namely Blended Learning. Meanwhile, the active participants in blended learning will gain success based on the role of students’ behavior (Richards & Rodgers, 2001). Students’ attitudes are investigated as indicators of students’ experience of blended learning. These will help develop students’ interest and allow them to be more interactive and active in their learning (McBride, 2009). Basically, applying the blended learning model has a significantly positive impact on students’ attitudes to this modern system of learning.

Based on the previous research, blended learning achievements can exert the greatest impact on enhancing environmental education for students’ learning goals (Kaur, 2013; Mazloumiyan et.al, 2012; and Okaz, 2015). Subsequently, Wildavsky (in Wena, 2014; 2014) revealed the main weakness of E-learning, namely the lack of face-to-face interaction between teachers and students. Another research conducted by Menon (2019) set up the online platform for the supplementary role of blended learning. Potential online learning merely focuses on classroom management such as materials design, curriculum and teacher development. Thus, the central interest developed in the students’ attitudes is affected by the applied blended learning. Krashen (2002: 22) states that motivation is the attitudinal factor which attempts to relate posited predictors of students’ second language proficiency. Moreover, teachers have difficulties to analyze and identify the students’ attitudes level based on the information assessment focused on integrative motivation and instrumental motivation for L2 learning process.

For this reason, the researcher studied whether attitudinal factors in blended learning increases or decreases EFL students’ motivations. However, applying face-to-face or traditional learning is also very important. The advances in technology are so extensive that teachers must learn to use them in order to maintain students’ attention. Thus, the research aims to [1] compare blended learning and traditional learning, [2] the quantity of blended learning for environmental education, and [3] recognize the role of blended learning seen from the attitude conception that is constructed by the teacher’s perception.

2. LITERATURE REVIEW
2.1 Blended Learning
Blended learning is a learning system that combines face-to-face learning and E-learning.

Blended learning is a worthwhile concept in learning where the transferring of knowledge is done in class and online (Bielawski & Metcalf in Husamah, 2014). The merger is when meetings are organised directly through online media that can be accessed anytime. Face-to-face learning is combined with E-learning in order to make the best use of the limited time available, while avoiding boredom by using technology.

Furthermore, Merrow (2012) interpreted blended learning as a traditionally designed class instruction (which itself varies greatly) and technology-mediated instructions. In other words, Blended learning is a blend of traditional-based learning combined with the technology-based learning. A similar opinion was also announced by Annisa (2014: 108) who stated that blended learning is a learning system that face-to-face learning (classical) helped online learning (through the use of E-learning facilities or internet media access). Based on the discussion of experts, a collection of ideas in blended learning can define it as a learning strategy that is intended to achieve learning objectives by integrating classroom or face-to-face learning with technology-based learning and information conducted online. Carman, (2005) identifies five terms as important elements of blended learning:
1.1.1 Live Event.
Direct or face-to-face learning (instructor led instruction) is synchronously in the same time and place (classroom) or the same time but different places (virtual classroom). For certain people, this direct learning pattern is still the main pattern.
However, even this direct learning pattern needs to be designed in such a way as to achieve the goals as needed. This pattern can also combine the theories of behaviorism, cognition and constructivism so that meaningful learning takes place.

2.1.2 Self-Paced Learning.
That is to combine with self-learning (self-learning) which allows participants to study anytime, anywhere using a variety of learning materials specifically designed for independent learning both text-based (textbook, worksheet, paper, etc.) and multimedia-based (video, animation, simulation, images, audio, or a combination of all of them).
Learning materials, in the current context can be delivered online (via the web or through mobile devices in the form of: streaming audio, streaming video, and e-books) or offline (on CD, and printed). Self-paced learning also controlled the students’ characters buildings delivers on their materials understanding.

2.1.3 Collaboration.
Combining both teacher and students in the learning process can cover the process of transferring knowledge. Thus, the designer of blended learning must concert in forms of collaboration, both collaboration between peers or collaboration between students and teacher through possible communication tools such as chat rooms, discussion forums, e-mail, websites, and mobile phones. Collaboration is directed at the construction of knowledge and skills through social processes or social interactions with others, it develops from deepening material, problem solving and project-based learning.

2.1.4 Assessment.
In blended learning, the designer must be able to construct a combination of types of assessment both test and non-test, or tests that are more authentic (authentic assessment / portfolio). In addition, it is also necessary to consider ingredients between forms of online assessments and offline assessments.

2.1.5 Performance Support Materials.
The process is to combine face-to-face learning in class and E-learning to develop the environmental education to support it. Learning materials are prepared in digital form, and can be accessed by teachers or participants either offline (in the form of CDs, MP3s and DVDs) or online. If learning is assisted with a Learning / Content Management System (LCMS), also make sure that this system application is properly installed and easily accessed. Based on the explanation above, the implementation of blended learning prepared to improve the education quality in Indonesia.

The Indonesia government decided to solve the problem complexity in education by develop the technological experience in manage the students’ materials. The solution armed with an initial understanding of the basic concept of blended learning will try to discuss study conditions now by presenting blended learning as an innovation in the world of learning in Indonesia to overcome the problems that are in the modern days.

2.2 Traditional Learning
Traditional learning focuses on transferring materials and developing students’ capabilities by the classroom activities. The traditional instruction allows the teacher and students to hold face-to-face interactions in the same situation. The subjects of study usually develop in students’ materials designs that build on students’ textbook. Therefore, the aspects of self-pace learning in traditional instruction are still on the low level. Observation, culture building, and face-to-face interaction is presented by the teachers or facilitator (Kaur, 2013).

The advantages and disadvantages of face-to-face learning allow discussions on Woodall’s theory (2010). First, the advantages of traditional learning are the dissemination of unhampered materials to be accessed by the students. In the additional interest of topic, the traditional learning certainly supports particular teacher-centered method. It also provides the gradually material transfers for teacher-role and to explain the difficult concepts or theories. Second, the disadvantage- the cost of the learner transfer can be expensive if the location of school is far from
home. Based on Woodall (2010) the students are required to attend sessions at a set time and usually need to bring textbooks. The sessions should obey the school rules that are teachers-based, and commonly the students get a passive interaction and their attention is prone to distraction. Based on the explanation of traditional learning, the research will compare the face-to-face learning and E-learning process in the collect interaction process on blended learning. The research has integrated the traditional learning and technological using for seen the students needed for enhance their attitude development to support the capability in self-regulation.

2.3 Attitude

Allport (1971) in Herman-Brennecken (2013: 62) defined attitude as a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all object and situation with everything related. Another concept is offered by Smith’s (1971) perspective that an attitude is the element of organization of beliefs around an object or a situation to respond the preferential manner. And the research result of Memeghani (2016) is that attitude markers received less attention compared with engagement markers; the most common attitude marker found in the presentations was “interesting”. Basically attitude is human behavior of a person in interacting or communicating with fellow humans. Attitude is very necessary in everyday life. Someone who is polite does not necessarily have a good attitude. When attitude is applied to everyday life, we get a responsibility for taking students motivation result to contribute their communicative competence and performance skill.

The definition of attitudes toward blended learning can be examined on six aspects: learning flexibility (can hold the learning activity everywhere), study management (stay on the appropriate time), technology, online learning (utilize the tools in learning process e.g. educational application program), online interaction (virtual communication), and classroom teaching (Tang & Chaw, 2013). Attitudes investigated in such a way are indicators of student's encourage knowledge for blended learning.

Interestingly, students who generally have positive attitudes (and great levels of motivation) toward learning also have more positive attitudes toward online learning in blended courses (Zhu, Au, & Yates, 2013). In general, applying blended learning model to the classroom activities has a significantly positive impact on students' attitudes to this system. Attitudes toward blended learning are similar to those toward the usage of social media for academic purposes (Acar, 2013). Learners' satisfaction with a course delivered by the means of blended learning is closely linked to their attitudes to this type of instructional setting.

Krashen (2002) constructed that the attitudinal factors would attempt to relate posited predictors of second language proficiency to these two functions. Motivation in learning process divided by two fields that were suggested by Yamin (2011: 234), namely extrinsic motivation and intrinsic motivation. Extrinsic motivation is a learning activity that grows from the motivation and needs of a person that is not absolutely related to their own learning activities. The definition of intrinsic motivation is based on understanding the needs and encouragement that is absolutely related to learning activities. The same opinion with Krashen, Gardner and Lambert (1972: 3) in Chaer (2009: 251) motivation related to second language has two functions, namely integrative motivation and instrumental motivation.

Integrative motivation, defined as the desire to be like valued members of the community that speak the second language, is predicted to relate to proficiency in terms of the two functions. The presence of integrative motivation should encourage the acquirer to interact with speakers of the second language out of sheer interest, and thereby obtain intake. A low filter for interactively motivated acquirers is also predicted for similar reasons. In Stevick's terms (Stevick, 1976: 113), the interactively motivated performer will not feel a threat from the "other" group and will thus be more prone to engage in "receptive learning" (acquisition), rather than "defensive learning". Instrumental motivation, defined as the desire to achieve proficiency in a language for utilitarian, or practical reasons, may also relate to proficiency. Its presence will encourage performers to interact with L2 speakers in order to achieve certain ends. For the interactively motivated performer, interaction for its own sake will be valued. For the instrumentally motivated performer, interaction always has some practical purpose. In a study by Demetriadis, and
Pombortsis (2007), students showed a positive attitude regarding e-lectures in a blended learning course. Regionally, few studies indicated high positive attitude of female and male students toward blended learning courses (Alseweed, 2013; Al-Saai, Al-Kaabi, and Al-Muftah, 2011).

3. METHODOLOGY

Blended learning methodology is defined as applying and implementing more than one method, strategy, technique or source to education. The aim of this study was to investigate the constructing blended learning, thus students were interested in following the process learning by attitude conceptual. Face-to-face and E-learning were combined by assessing the students' attitudes towards traditional and blended methods aiming at getting empirical evidence of the effectiveness of blended learning and its association with students’ motivation and satisfaction when learning English Foreign language. The study uses qualitative methods to compare the factors of blended learning and traditional learning process.

3.1 The subjects of the study

The subjects of the study, consisting of a total of 68 students and teacher who attended the blended learning class, were randomly selected from the undergraduate students enrolled in the English Language Class during 5 months of March until July 2019 in Yogyakarta and Jakarta. That district was chosen by the conditional gab of applying the technological tools to the educational process. This course was focused on improving the students' listening, speaking, reading and writing skills in order to improve their learning and employability skills. The traditional teaching method was applied by face-to-face lectures, formal assignments and evaluation processes. The blended method was applied by face-to-face lectures, live and recorded virtual classes by some applications (e.g. Q-school), recorded lectures, discussion form, student forum, extra exercises and training, along with formal assignments and evaluation processes. That point will be analyzed by the researcher.

3.2 Instrumentation

To achieve the purposes of this research study and evaluate the effectiveness of the use of Blended learning to supplement classroom, it was necessary to technological implied of attitude conception, therefore, the researcher prepared the following instruments:

3.2.1 Observation

The researcher has been able to observe a number of classroom activities by using blended learning and traditional learning to compare the activity gaps that affect tutoring within the teaching/learning instruction. The observation holds on teacher’s perception by using face-to-face and Q-school apps.

3.2.2 Interview

The researcher interviewed 11 students from Yogyakarta and 7 students from Jakarta, who were selected randomly. Students were asked about their attitudes towards implementing blended learning in learning the English Language class. Therefore, the researcher clarified to their teachers, in total 60 teachers, about the students’ achievement. By conducting interviews, the researcher aimed to obtain further support on students' responses.

4. RESULTS AND DISCUSSION

Blended learning was developed around in 2000 and is now widely used in North America, Britain, Australia, Circles College and world of training (Dwiyogo, 2013). As a learning strategy which combines traditional learning (face-to-face/classical) with E-learning (through use of facilities / internet media), blended learning designs and implements good learning in terms of content and delivery done online.

4.1 Comparing blended learning and traditional learning

Various studies also show that blended learning is more effective compared to conventional learning with face-to-face systems or with E-learning systems or online learning. Its effectiveness is supported as follows:
4.1.1 Submission of learning can be carried out anytime and anywhere by utilizing a network system such as the Internet.

4.1.2 Students are offered flexibility to study teaching materials or materials independently by using teaching materials stored online.

4.1.3 Discussion activities take place on a regular basis online / offline and take place outside class hours, discussion activities take place between students and teachers or between students themselves.

4.1.4 Teachers can manage and control learning done by students outside student learning hours.

4.1.5 Teachers can ask participants to study the subject matter before face-to-face learning take place by preparing supporting tasks

4.1.6 Target material can be taught according to the set target.

4.1.7 Learning becomes flexible and not stiff.

Based on the observation and interviews with the participants in Yogyakarta (32 students, 3 teachers) and Jakarta (30 students, 3 teachers), the researcher constructs the comparison result of learning by using blended learning and traditional learning based on the table below:

<table>
<thead>
<tr>
<th>Achievement of learning process</th>
<th>Blended Learning</th>
<th>Traditional Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four skill implementation (listening, writing, reading, listening)</td>
<td>√</td>
<td>N</td>
</tr>
<tr>
<td>Forum discussion (Question-answer)</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Upgrading technological acquire</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Attitude conception</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Assignment and evaluation process</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Student-centered</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Self-pleasure to learn</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Habitual discipline</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Appropriately learning management (Time)</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Innovatively learning atmosphere (Setting)</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Factual students understanding</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Real time correction</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

4.2 Percentages of blended learning for instructional education

Based on the theoretical review from Carman, (2005) it was revealed that there are five keys to implementing learning using blended learning such as [1] Live Event. Direct or face-to-face learning (instructor led instruction) is synchronously in the same time and place (classroom) or the same time but different places (virtual classroom), [2] Self-Paced Learning. That is to combine with self-learning (self-learning) which allows participants to study anytime, anywhere using a variety of content (learning materials) specifically designed for independent learning both text-based and multimedia-based (video, animation, simulation, images, audio, or a combination of all of them), [3] Collaboration. Combining both educators and students in the learning process can cover the process of transferring knowledge, [4] Assessment. In blended learning, the designer must be able to concoct a combination of types of assessment both test and non-test, or tests that are more authentic (authentic assessment / portfolio), and [5] Performance Support Materials. The process to combine face-to-face learning in class and virtual settings, the researcher obtained the percentages of students’ achievements from observation and interviews with the teachers who employed blended learning in their teaching process:
From the diagram above, the result of students’ achievements using blended learning shows that Self-Paced Learning is frequently occurring by 41%, which is significantly more than the others such as live event, collaboration, assessment, and performance support material. The self-paced learning aspect takes more pleasure on students-centered approach. Student-Centered Learning (SCL) approach is a learning model that places students as the center of the learning process. In applying the Student-Centered Learning concept, students are expected to be active and independent participants in the learning process, who are responsible and take the initiative to obtain their learning needs, look for sources of information to be able to help their needs, search and publish their needs and sources they find. In certain limits students can choose for themselves what they will learn (Harsono, 2005: 176).

In the process of student-centered or as Carman called it self-learning, the students are free to improve their creativity, critical thinking, and technological literacy. Teacher should design innovative materials. Based on the interview with the teacher from Jakarta, she used Q-school to practice blended learning. The process happened on the first steps, she told all the students to use their Internet access and their own textbook (text-based and multimedia-based). Therefore, she began the lesson by showing the students enthusiast proved their online attendance on blended learning. As a result, all students became more motivated to follow E-learning. Thus, student’s motivation was increased by practicing in blended learning.

Motivation has a close connection with learning. Because the class will be conducive, if the process of transferring knowledge supported by the students’ motivation. To set the right atmosphere, such classrooms need motivation born in a class (extrinsic) environment and in students (intrinsic). Especially motivation from outside brought by educators. Extrinsic motivation is motivation that can obtained from the surrounding environment, while intrinsic motivation is the opposite of extrinsic motivation, where motivation is obtained from within a person. Motivation has various types, both in the form of material or just mere driving words. In the scope of education, motivation that is commonly used by educators is material motivation; teachers develop creativity uses a variety of strategies to achieve the curriculum goals. In this case, the important activity for the next educator is to choose a pattern or model of learning that enables students to be active participants in the learning process.

The lowest one is Performance support Materials which gained only 3%. This happened because the Indonesian education system does not entirely facilitate blended learning and accepts the technological developments overture. Another aspect of the interview with the teacher from Yogyakarta was the difficulties faced while making a digital material and the lack of motivation to change the lecturing model which seemed easier. This happens when the teacher’s mind-set is set on the old- models of teaching.

4.3 Construction factor in blended learning by attitude conception

The application of blended learning can be used as an organizing teaching strategy, teaching delivery, and teaching quality because blended learning is able to accommodate extensive technological developments in the 21st century without leaving learning face to face (face-to-face). Blended learning students will be able to compete and overcome educational challenges especially for students at the college level who have big educational challenges. There are five challenge in college education:

[1] new educational models that bring more competition than traditional models,
[2] a lot of new publishing and research which is not well understood by decision makers, [3] digital media is expected to promote literacy in education for academic professionals. [4] experiment with technological applications especially innovative ones are often regarded as outside role of a
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researcher, and [5] in the Open Source world, the library is under pressure to develop new ways to support students. That is the reason why blended learning should balance the attitude conception. Based on the attitude conception, the researcher analyze the blended learning adopted the theoretical view of Krashen (2002), as follows:

4.3.1 Understanding Integrative motivation, defined as the desire to be like valued members of the community that speak the second language, is predicted to relate to proficiency in terms of the two functions. It encourages acquirers to engage and obtain intake. In this part, students should have a desire to learn English initially, as the interview with over 16 students showed that they are getting good scores in English because they like this learning process. Integrative motivation also effects actual behavior in blended learning process.

4.3.2 Satisfying Instrumental motivation, defined as the desire to achieve proficiency in a language for utilitarian, or practical reasons, may also relate to proficiency. The purpose of instrumental motivation is clearly stage on the high position in learning process. According to the data accumulated by interview, students mostly showed that they wanted to improve more in English as a Foreign Language and follow the technological developments to confront the international challenges, but others said it was enough only to get a good score in English. Although the instrumental motivation necessarily not only build the students to fluent in L2 but also intent on complete attitude value.

4.3.3 The role of teacher attitude and classroom environment took seriously effect for create students’ motivation. The attitude of students in the learning process describe the students’ behavior in teaching-learning interaction, student attitudes can appear in the form of will, responses, changes in feelings and etc.

There are times in a learning process that students are active, but there are also students who are passive. Less active students might not like the teacher’s performance in teaching or even the learning situation. In this case, the attitude has a correlation with the teacher’s designed model of teaching that the researcher studied in blended learning. Participants that consisted of 66 students and teachers from Jakarta and Yogyakarta always commented on positive reason that generally shown at the process of blended learning and precisely created the students to have good behavior to develop their ability and skill on creative thinking high level achievement.

5. CONCLUSION
Blended learning is a learning model that transfers between face-to-face learning and E-learning. Simply defined, blended learning is a traditional design class instruction (which itself varies greatly) and technology-mediated instructions. Therefore, blended learning can be achieved through the learning process, the power impact of blended learning support on upgrading technological acquire, prioritize students-center, appropriately learning management (Time), Innovatively learning atmosphere (Setting) that compare with traditional learning. The result of study are [1] much proper blended learning than traditional learning, [2] percentages of blended learning for instructional education is frequently occurring on Self-Paced Learning which obtains 41% than the other field, and [3] the construction factor in blended learning by attitude conception such as integrative motivation, instrument motivation, and attitude toward the classroom and teacher. Thus, this study suggested controlled teacher’s perception for teaching that might help students for instructional technology skill by attitude from blended learning on preparing suitable digital literacy.

REFERENCES


