

Enhancing Students' Core Competencies by Applying Blended Cooperative E-learning (BCeL) in Teaching and Learning Process

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Abstract—This study aims to enhance students' core competencies by applying the Blended Cooperative ELearning (BCeL) in Research on ELT course. Students' core competencies include soft skills, hard skills, and academic character. BCeL is teaching and learning method where face-to-face classroom is combined with e-learning to employ students' cooperative learning activities in group work. This classroom action research (CAR) was conducted in three cycles, and each cycle consists of three meetings. Lecturers' note, observation and students' note were used as the instrument of data collection. Subjects in this study are two lecturers and 29 students. The research reveals that lecturers successfully applied BCeL and developed its strategies as well as enhance students' core competencies. The result of online and classroom observation, and students' note show that the students have positive attitude and good motivation toward learning and teaching process of BCeL. This research implies that teachers should have initiative and develop their method and strategy of cooperative eLearning in order to enhance students' core competencies through teaching and learning process.

Keywords—E-learning; cooperative learning; soft skills; hard skill; academic character; teaching and learning strategies

I. INTRODUCTION

The use of e-learning in university level has been widely applied to support learning process at outdoor class. However, the development and the exploration of the use of Blended Cooperative E-learning (BCeL) to improve students' core competencies in teaching and learning process are still rare. BCeL is a learning method which refer to features of student's center learning, where the students doing discussion, group assignment, presentation, share each other's whether in face to face class and in e-learning class [1,2].

BCeL is able to solve some problems for instances, big classroom sized, lack of classroom, time constrains, material constrains, and unavailability of lecturers and students. The students can cooperate for instances; interact, open discussion, group discussion, work in-group, and share resources whether classroom as well as through e-learning asynchronously and synchronously. Developing the strategies of BCeL implementation in teaching and learning process is depend on

the teachers planning, observation, evaluation and reflection during the process of teaching and learning [3,4].

The use of BCeL in teaching and learning process is appropriate to improve students' core competencies that include soft skills, hard skills and academic character. This claim due to BCeL and its' features allow the students to develop their hard skills, softs skills such as communication skills, IT skills, numeracy skills, team work skills, problem solving skills and learning skills; and academic character responsibility, honesty and etc. [1,5,6]. Related to the reason, an action research was conducted to experience how the teachers gather BCeL to improve students' core competencies development in Research on ELT course.

II. REVIEW OF RELATED LITERATURE

A. E-learning

There are various definitions to define e-learning appropriately. E learning is one form of the concept of Distance Learning. The form of e-learning is quite extensive. A portal containing science information can be said as an e-learning site. *E-learning or Internet enabled learning* combines teaching methods and technologies as a means of learning. E-learning is an effective learning process that is produced by combining digital content to deliver materials that consisting of support and service [3,5,7]. In this study, E-learning (electronic learning) is defined as the use of internet technology to deliver learning materials. The basic criteria of e-learning are: network (network), delivery of learning materials to users via computer with a standard internet technology, and focus on broad learning. In short, E-learning is an instructional process that involves the use of electronic equipment in creating, fostering, delivering, assessing and facilitating a learning process with learners as an interactive center, whenever and wherever.

E-learning requires the students to learn whenever and wherever, without or any teachers companion. Even students can search any information and knowledge they have by looking for references and information from various sources. Similarly, by using web-based e-learning, teachers can provide learning materials that can be accessed by the learners at all times [2].

E-learning usage is bridged by internet, requires a medium to display course materials and questions and requires communication facilities to exchange information between participants and teachers. There are three functions of e-learning in learning activities, including as supplement - that the used of e-learning is optional for the participants; as complement - e-learning materials used as enrichment or remedial material for the participants; and as substitutes - e-learning in total serves as an alternative delivery of learning [3,5,7].

B. Blended Cooperative e-Learning (BCeL)

Blended Cooperative e-Learning (BCeL) is a cooperative learning activity that combined face-to-face class and e-learning platform classroom [4,6,8]. Cooperative Blended e-learning has many benefits in terms of education both in terms of time and place. The computer-supported learning will be more meaningful when students switch to cooperative learning [6]. The approach to combine face-to-face activities in the classroom with group activities during the learning process and partner assessment can be referred to the blended cooperative e-learning approach (BCeL).

The first type of interaction is teachers who become active learning facilitators to do face-to-face interactions in a social setting through e-learning plate form. However, teacher designs and manages the proper sequence of learning and media sessions before interacting with students. The second interaction is the competencies. This interaction bridges cognitive interaction with hard skills and soft skills contained in the learning module [4,9]. Finally, social interaction is defined as the ability of learners (students) to perceive themselves as a positive interdependent community (positive interdependent, cooperation). Such interactions may occur in the whole learning process because they share references and they engage in tasks that require cooperation. As it is known, the dimension of human interaction in the whole learning process is very important. Meaning and understanding that is built will eventually arise through interaction (social discourse). This meaning is then shared among the group members who participate in building shared knowledge through their own responses. This is already a high achievement of cognitive level [4].

C. Core Competencies

Core competencies are the ability to nurture soft skills, hard skills, and academic character to be applied at work place as outcome of learning [10,11]. Soft skills the ability of generating communication skills, IT Skills, numeracy skills, learning how to learn skills, problem-solving skills and working with others in learning activities as well as in working [12]. Hard skills relate to specific knowledge and technical skills toward a field of study [13]. Dikti state that hard skills that are refer to specific knowledge and technical skills toward one’s major [14]. Specifically, in this study, it is defined the ability of students using and generating course knowledge and skills in real context.

Academic character qualities are defined as distinct from soft skills, which represent the ability to fell, know, express, and practice of humanism values in learning activities context.

As elaborated and stated above, academic character encompasses into seven characters, honesty, appreciating, tolerance, discipline, patient, confidence and responsible [10,15].

III. METHOD

This classroom action research (CAR) was conducted in three cycles, and each cycle consists of three meetings. Lecturers’ note, observation and students’ note were used as the instrument of data collection. Subjects in this study are two lecturers and 29 students. Four steps were implemented in every cycle; planning, action, observation, and reflection. At planning step, researcher prepares material, topic and sub-topics, e-learning application to be used, syllabus and teaching and learning scenario. At action step is implementing the teaching scenario of blended cooperative e-learning with Edmodo platform. Strategy and technique may be changed for the aim of improvement or anticipating. Observation was conducted by one observer lecturer. Observer note and check list observation were used to collect observation data. Reflection was conducted to know the strengths, successfully action, the problems, and weaknesses found during the process of teaching and learning. Next step of reflection was checking why the problem and weaknesses happen, seeking possibilities for improvement, and investigating why parts of teaching scenario were not working well. Furthermore, the revision might be conducted and be implemented in the next cycle. The study was conducted from beginning August of 2016 to the end of October 2016. The first scenario of teaching and learning by BeCL is displayed in table 1.

TABLE I. TEACHING AND LEARNING SCENARIO

<p>Class Activities Scenario based on Blended Cooperative E-learning.</p> <p>Course: Research on ELT Time : 300 Minutes in each meeting. Designed for cycle I (3 Meetings).</p> <p>Course Content Topics</p> <ol style="list-style-type: none"> 1. The general Notion of social Science research. 2. Types of Research on Education (Social Research). 3. Current issues on English Language Teaching Research. <p>Output of Core Competencies</p> <p>Hard Skills Ouput:</p> <p>Course Knowledge Students understand the nature and the types of research and have basic knowledge about current issues on English Language Teaching research</p> <p>Course Skills Able to describe by their own language about the nature and the types of research and have basic knowledge about current issues on English Language Teaching research</p>
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Table 1. Cont.

<p>Soft Skills Output: Indicators of Communication skills, learning how to learn, problem solving, IT Usage.</p> <p>Character Output: Indicators of confidence, discipline, responsibility, patient, Appreciation, and honesty Introduction to the course (syllabus) Lecturers guide the students' to register and how to use Edmodo to facilitate their learning. Students are divided into group 3 – 4 students. Work for Online and Face to face discussion. Collaboratively they are asked to find sources of choicest Topic between 1, 2 and 3 by Offline or Online Resources The students sit in group and lead by one of them to manage the group work. The students work in group on course topic given.</p>
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IV. RESULTS OF THE STUDY

Looking at the process of BeCL from the first cycle to the third cycle, the teacher and co teacher had discussed some weaknesses and problem during the action. Teaching strategy and technique, grouping and learning management had been improved and developed from cycle to cycle. The result of cycle one until cycle is presented below.

A. Cycle 1

Table 2 shows the result of cycle 1. Four main activities were conducted from meeting 1 to meeting 3. Result of observation, reflection, summary and revision are reported in the Table.

TABLE II. RESULT OF CYCLE 1

Action/Main Activities	Result		
	Observation	Reflection	Summary and Revision
<p>Registering and learning to use edmodo. Grouping, searching, exploration, and sharing ideas in their group. Continue group discussion in e-learning and come up to group conclusion. Two of 7 Group presented the result of their group work about and other groups giving addition</p>	<p>All students are active registering and exploring features of edmodo. They seemed very interested, enthusiastic, and enjoy. Some students look like confused and have problems and asking some help to their friends and lecturer. Some students were active and shared their understanding of the topics of lecture.</p>	<p>Some students cannot register Wrong password and have no email. Only 2 of each group member were able to share, present and respon related to the topic of the discussion. Most of students do not started to share, giving idea, and respond yet.</p>	<p><i>Summary</i> 100% students were registered at edmodo. Most of students were able to use all features of edmodo. Around 40% of students were practice soft skills, hard skills, and academic character. General agreement and understanding related to social research notion, types of research and current issues of research in ELT were obtained. <i>Revision for the next cycle</i> Group presentation leaded moderator and secretary. Make sure each member of group gets turn to present, respon or share an idea. Every group member must give their response in online discussion.</p>

B. Cycle 1

In cycle 2, six main activities were conducted from meeting 1 to meeting 3. Five observation, five reflections,

four summaries and four-revision result are reported in the Table 3.

TABLE III. RESULT OF CYCLE 2

Activities	Result		
	Observation	Reflection	Summary and Revision
<ol style="list-style-type: none"> Brain storming about literature review of research. Giving individual assignment relate to the literature review of a research. Reporting based individual assignment via Edmodo Group work; thesis analysis, seeking for how writer relate chapter one and chapter 2 of a thesis. Continuing discussion and working online. Group member Group presentation. 	<ol style="list-style-type: none"> Reporting based their task and role in completing group assignment via Edmodo Students take a note during the brainstorming. Students' discuss each and share each other to understand more about lit. Review of a research. Group discussion. Students asking lecturer to understand more about literature review. Long online discussion to explore and elaborate how title of research, background, research question and chapter connected each other. Students' practice some part of their soft skills, showing hard skills and some part of their academic character. 	<ol style="list-style-type: none"> Group leader has difficulties to mediate students' opinions. Few group members do not give any response in online discussion. Some group member unsatisfied with conclusion of their discussion. Three students reported that their opinions were not appreciated by a group leader. Some students cannot meet the deadline of individual assignment. 	<ol style="list-style-type: none"> Most of students were practice soft skills, hard skills, and academic character. General understanding related the connection of title, background, RQ and literature review were obtained. Lecturers were successful guiding group to keep on tract of the discussion. Most of group of students' coming up with robust conclusion. <p><i>Revision for the next cycle</i></p> <ol style="list-style-type: none"> Advise group leader to encourage group member to contribute in online and offline discussion. Lecturer need to guide how to accommodate group members idea and take conclusion. Lecturer need to advise students to appreciate, encourage their group member. Lecturers should advise group member to contribute, to responsible and to be more confidence for their task and presentation.

C. Cycle 3

Table 4 shows the result of cycle 3. Five main activities had been conducted from meeting 1 to meeting 3. Result of observation, reflection, and summary are reported in the Table.

TABLE IV. RESULT OF CYCLE 3

Activities	Result		
	Observation	Reflection	Summary
1. Dividing group assignment based on topic of Research Methodology.	1. Group leader starts the discussion in online based on topic given.	1. Some students confuse to report their role and task in	1. Using BCeL method was very appropriate to developed students core competencies.
2. Discussing, suggesting, and revising of group assignment online.	2. All group members contribute their idea to construct and complete the group assignment.	2. Not all students giving Question and answer to Group Online report in the class.	2. The use of BCeL to develop students core competencies become more better and interesting from cycle to cycle.
3. Reporting and presenting group assignment via Edmodo online class.	3. Students asking question and suggestion in online class.	3. Only 2-3 group member response the question from another group.	3. Lecturer become more expert in developing teaching and learning strategies by using BCeL.
4. Individual response, suggestion and question to others group online report.	4. Group member response to others group question with varies answers.		4. Problems appeared from cycle to cycle are successfully solved.
5. Reporting group member's role and in completing group assignment via Edmodo.	5. Each student submitting individual report on time		5. Students are more active to share, participate, discuss, present, response, question and answer from cycle to cycle.

D. Summary of Core Competencies Practices in All Cycles

The core competencies were practiced and developed by the students from cycle 1 until cycle 3 in this action research. Indicators of core competencies are increasingly practiced by the students from cycle to cycle. Table 5 displays result of observation on students' core competencies practices in learning activities of BCeL.

TABLE V. INDICATORS OF COMPONENT IN CORE COMPETENCIES PRACTICED BY THE STUDENTS

Soft Skills	Indicator Observed (practiced in cycle?)
Communication Skill	1. Doing presentation (cycle 2 and 3) 2. Summarizing key issues. (cycle 1) 3. Communicating some ideas in writing (cycle 1,2,3) 4. Writing a report (cycle 1,2,3)

Table 5. Cont.

IT Skill	1. Registering to e-learning (cycle 1) 2. Searching resources from online resources (cycle 1, 2, 3) 3. Developing power point and hyperlink to other files (cycle 2, 3) 4. Using power point in presentation (cycle 2, 3). 5. Presentation online through video at Edmodo (cycle 3) 6. Inserting relevance video and picture in power point (Cycle 2, 3) 7. Submitting assignment through Edmodo (cycle 2, 3).
Numeric Skill	1. Reading tables, charts, graphs and numbers (cycle 2, 3) 2. Presenting based on points but calculable (cycle 2,3) 3. Managing time for working on assignment (cycle 1,2,3) 4. Identifying the relevant information sources (cycle 1,2,3)
Learning Skill	1. Asking question try to answer by him/herself (cycle 1, 2,3) 2. Learning independently (cycle 1, 2,3) 3. Consulting with lecturers (cycle 1,2,3) 4. Comparing information from various resources (cycle 1,2,3).
Problem solving skill	1. Identifying a problem (cycle 1,2,3) 2. Using different methods to analyses a problem (cycle 2,3). 3. Accommodating diverse perspectives (cycle 2,3).
Team work Skill	1. Learning activities in a group (cycle 1,2,3) 2. Having conversations with different races in learning (cycle 1,2,3) 3. Giving feedback to improve team work (cycle 1,2,3) 4. Working in team (cycle 1,2,3)
Hard skills	1. Applying specific knowledge and skills (cycle 2,3) 2. Discussing ideas specific knowledge of a course (cycle 1,2,3) 3. Transferring knowledge based on into practices (cycle 1,2,3)
Academic character	Indicator Observed (practiced in cycle?)
Honesty	1. Telling what I can do and cannot (cycle 1,2,3) 2. Not copying and pasting for assignment (cycle 1,2,3) 3. Telling true resources (cycle 1,2,3)
Appreciating	1. Honouring friends' improvement (cycle 3) 2. Listening to friend (cycle 1, 2,3) 3. Encouraging less active friend (cycle 2,3) 4. Giving appraisal to friends' effort and work (cycle 2,3).
Tolerance	1. Appreciating differences of ideas (cycle 2,3) 2. Accepting diversity in a group. (cycle 2,3)
Discipline	1. Coming to a class on time (cycle 2,3) 2. Following rules set by classroom agreement (cycle 2,3)
Patient	1. Hearing long explanation (cycle 1, 2,3) 2. Accepting the result (cycle 1, 2,3) 3. Staying motivated (cycle 2, 3)
Confidence	1. Pushing down nervousness (cycle 2,3) 2. Being confident (cycle 2,3) 3. Assuring own ability. (cycle 3)
Responsible	1. Completing my own part as group (cycle 1, 2,3) 2. Own involving in group discussion, (cycle 2,3) 3. Taking a part as moderator (cycle 1,2,3) 4. Own revising of report (cycle 1,2,3)

V. DISCUSSION

Many researches had been conducted related to the effectiveness of E-learning usage but not many researches had been conducted to search on developing students' core competencies through BCeL method. BCeL was able to facilitate students to practice core competencies during the teaching and learning process, as the result the students' soft skills, hard skills, and academic character were enhanced. This is due to the students' core competencies developed while students interact, discuss, work in group, and share whether in face-face class as well as in e-learning activities [2]. On other hand, the result of action research from cycle to cycle shows that blended cooperative e-learning can be implemented and developed well by the lecturer. Most of participants reported that they can essentially develop an understanding and research on ELT topics BCeL learning activities. In short, the BCeL encourages students to discuss, complete group tasks, face to face and online discussion. The lecturer was able to improve and developed strategies and techniques of BCeL from cycle to cycle.

The findings also reveal that the students' learning activities sense was developed in BCeL. Based on our observations and on the students' views, the students' classroom activities were developed because they worked in cooperative groups. They were responsible for each other's learning, and started getting along well even with their friends whom they previously did not have close relationships with. They respected each other's opinions; their communication both with the faculty member and with their friends increased and because they kept learning out of class on online basis. Face-to-face discussions should not be ignored; that students should continue their discussions in the online environment as well; and that computer-aided cooperative learning tools should thus be designed for effective integration of face-to-face and online interaction [16]. The development of classroom community sense will have effect on students' satisfaction levels, their learning and on the permanence of their learning.

VI. CONCLUSION

The classroom action research which aims to maximize blended cooperative e-learning to developed students core competencies in the learning of research for ELT courses has been successfully conducted. The classroom action was conducted in three cycles and three meeting of each cycle. Lecturer was successfully improving student-learning activities face to face as well as in online environment through BCeL. Students' core competences; soft skills, hard skills and academic character were developed through a set of learning activities such as group project writing, group discussion, interaction between group, sharing, presentation, team work, using multi online resources, giving question and answer etc. The students are motivated and showing positive attitude during the teaching and learning activities in the classroom and online environment. Finally, this research suggest that that lecturer should have initiative and effort to develop their method and strategy of cooperative eLearning in order to enhance students' core competencies through teaching and learning process.

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