

THE TEACHER'S AND STUDENTS' PERCEPTION ON PROJECT BASED LEARNING IN NURSING DEPARTMENT

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Abstract

The study was aimed at investigating the students' and teacher's perceptions in utilizing technology-based classroom instructions with project based learning approach in learning English for specific purpose (ESP) as an effort of enhancing the quality of students' participation. In education, active participation of all stakeholders such as students, teachers, and policy makers is important so that the education goals can be achieved. The development of industrial revolution 4.0 disrupts every aspect of life including education. Teacher should take advantage of the current technology development for enhancing the quality of teaching process. The study employed survey study research method. One teacher and 72 students from nursing department were involved in the study and an electronic questionnaire with close-ended and open-ended questions was used to collect the data. The data was analyzed with the stages of data collection, data reduction, data display and conclusion drawing. The findings of the study showed that both the teacher and the students have perceived positively towards the project based learning in their ESP class. It also showed the students' expectations, obstacles, and advantage of learning PBL in ESP, as well as PBL in relation to autonomous learning. In addition, this type of learning process enhances students' active participation

Keywords: ESP, Project Based Learning, Teaching Instruction, Video Project.

INTRODUCTION

Industrial revolution 4.0 is currently a popular term in the world. The advanced technology development experienced by people at the present time is one part of the industrial revolution that developed from more than two centuries ago when the first time steam machine was invented making people to be more productive (Gleason, 2018). A hundred years later, in 1870s the second industrial revolution had begun with the invention of electricity which affected the mass production in industry. The development of IT and electronics had enabled people to cut the cost and the time spent for production. At this moment the development of the technology could double or even triple the productivity. Now under the term that was first time used in Germany in early 2000s, the fourth industrial

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revolution or industrial revolution 4.0 has developed (Gleason, 2018). Not only does it affect the number of mass productions but it also disrupts the way or how it works with the internet of things, the big data, artificial intelligent, and the speed of connections.

English language teaching has been facing dynamic challenges especially in the early 21st century where the era of industrial revolution 4.0 and the internet of things have disrupted many of life aspects (Rotterham & Daniel, 2009; Hashim & Hameed, 2012). These inevitable developments have influenced the teaching instructions, media for learning, as well as the teaching approach used by the teacher in delivering the lessons. The development has offered teachers with various learning platform utilizing technology with diverse learning environment and experience (Thongmak, 2013; Al-Kathiri, 2015; Poore, 2015; Manca & Ranieri, 2016; Liliia & Gulnara, 2016; Puspita & Lubis, 2019). Some platforms are designed specifically for educational purposes such as Edmodo, schoology, google classrooms. These platforms are “classroom”. They have the facility for the teacher to teach online and the students can study online. They can interact as if they were in the classroom. These platforms also provide the facility for the teacher to set the lesson, what tasks to be done by the students as well as the assessments tool that ease the pedagogical job of the teachers. Some other educational websites also are also developed for education under the umbrella of massive open online course (MOOC). They provide web-based learning experience with its unique learning system and everybody can learn by following the system designed by the teacher with its learning environment. Many higher education institutions even offer degree for finishing the course. Last but not least, some social media such as Facebook, Instagram, and YouTube which purely designed for online interactive communication between one person and another can also be used by educators to teach as long as the pedagogical approach is appropriate.

However, teachers in the developing countries keep facing classical problem, which is lack of autonomous learning, students’ anxiety, and insufficient participation in the classroom. Furthermore, the autonomous learning is a critically relevant topic not only for the students’ academic life but also for their daily life (Cao, 2012). Lee (2016) cited the definition of autonomy as “the ability to take charge of one’s own learning” and made an operational definition such as the learner proceeds creativities, self-monitoring, and individual learning outcomes evaluation. The model of learner autonomy itself has a model proposed by Tassinari (2012) which has multi dimension such as cognitive, metacognitive, social, and affective dimension. Seeing its critical roles in achieving educational goals,

autonomous learning has the potency to be developed under rapid technology development in the 4th industrial revolution at the present time. Moreover, a problem of students' anxiety can also be solved simultaneously (Masriani, et. al, 2018)

Numerous studies had been conducted to investigate the use of current technology-based online platforms for education. The use of Edmodo in the classroom (Al-Kathiri, 2015; Al-Naibi, Al-Jabri, & Al-Kalbani, 2018), the use of facebook for classroom purposes (Manasijević, Živković, Arsić, & Milošević, 2016), the use of MOOC (Mori, & Ractliffe, 2016) are some instances of what and how industrial revolution 4.0 has shifted the pedagogical approach. The current technology supports as well as alters the conventional education to the cutting edge education development with some premises like:

1. Many software/hardware are designed for various purposes including education
2. Embracing massive open online courses (MOOCs)
3. Cultivating Innovative Talent
4. Generalizing Blended Learning

Through all the possible challenges and pedagogical shifts in the present era, the researcher was interested in investigating the students' and teacher's perceptions in utilizing technology-based classroom instruction with project based approach in learning English for specific purpose (ESP) as an effort of enhancing the quality of students' participation and promoting autonomous learning. In addition little research has been conducted within this field making this study is of significance to the contribution of literature as well as practical use for the teachers.

Project Based Learning

In a simple definition, project based learning (PBL) can be defined as learning conducted through a structured project (Thomas, 2000). It entails the students' involvement in designing, problem-solving, decision making, or investigating on something within the task framework of the project. It offers the students to chances to creating autonomous learning. The teacher works as the facilitator to guide the students to discover the knowledge. Thomas (2000) added that some features in PBL could be the unique properties such as authentic assessment, teacher's facilitation, cooperative learning, and incorporation of adult skills. The instruction also should be specific; in conducting the project a teacher should provide driving questions, promote the use of technology-based tools, and explore multidisciplinary field of study that encourages "expeditionary learning". Bell (2010) elaborated the features of PBL that is promoting self-reliant through planning and

organization, enhanced social learning skills, driven intrinsic motivation, real-world connection, technology-enhanced creativity, and the experiences of success.

In the current study, project based learning was operationally understood as a series of structured tasks facilitated by the teacher in achieving certain educational goals. The activities designed under classroom instructions were expected to enhance student-centred learning experience and cooperation as well as students' autonomy in learning to learn.

English for Specific Purposes

English for specific purposes (ESP) is English language teaching which is tailor made for certain purposes (Belcher, 2006). The teaching of ESP is designed purposively for certain needs such as academic and occupational like English for tourism and hotels, English for law, English for engineering, etc. (Halim & Latipah, 2018). ESP has its own uniqueness that may be different from general English. The differences are often not on the level of teaching methodology but rather on the registers and functional language used in certain situation. The current study was conducted in the ESP class from nursing department. The focus of the language learned from the teaching process was English for nurses.

Some studies have been conducted within the area of project based learning and the use of technology in the classroom. First, schoology was found to be effective in the scaffolding process to facilitate the learning of the students and the it was also attractive for the students so that it can be a model for blended learning that facilitates online and offline classroom (Suana et.al., 2017). Second, a study was conducted in 2017 examining how schoology m-learning as a platform of learning management system fosters students learning autonomy. The study suggested that the students exercised their learning autonomy when learning though the platform as they had freedom to select learning materials, practice their cognitive development and they also had control over the learning management system (Priyatno, 2017). Third, a study specifically about PBL was reported. Project based learning was proven to be more motivating for the students as it promotes more students-centered learning environment. From the motivation perspectives, it helped the students enjoy the learning process and it enhanced students learning experience (Hugerat, 2016).

Some of the studies presented above have drawn the picture of PBL and its integration with technology for educational purposes. In general, many of the studies in this area were focusing on the web-based or mobile applications which were purposively designed for education. Schoology and Google Classroom, for example, are the learning platforms that

from its initial development were designed to equip educators for “replacing” conventional classroom. It can be used by the teacher with various approaches including PBL. When the PBL was integrated with m-learning it can promote the independence of learning which lead to autonomous learning (Prayitno, 2017; Halim et.al, 2019). Nonetheless, Godwin-Jones (2011) argued that the current development of mobile communication technology was on the rise. The use of smartphone is something that one cannot avoid. Some research has indicated that people started to get addicted with smartphone (Ng & Wiemer-Hasting, 2005). This means that there is a chance for educators to lead the students who are smartphone and internet users to good learning experience. But there is lack of research about using non-educational-purposes application such as video editing apps as a tool for pedagogy.

This study can be considered as pioneer as the teacher did not use some designed-for-education tools but rather encouraged students use the for-fun mobile applications such as video editing tools available at Google Playstore (for android users) and at App Store (I-Phone users) for the learning process. The teacher took advantage of the development of the technology to set an instructional design with project based learning approach for learning English for nursing.

The purpose of the study was to investigate the students’ and teacher’s perceptions in utilizing technology-based classroom instruction with project based learning approach in learning English for specific purpose (ESP) as an effort of enhancing the quality of students’ participation. The research question was how do students and teacher perceive their attitude towards PBL approach with technology utilization? The term participation in this case is the rate of active involvement of the students in the classroom. The study also explores the students’ expectations, obstacles, and advantage of learning PBL in ESP, as well as PBL in relation to autonomous learning. Therefore the study is of significance to the teachers for improving the quality of the classroom instruction.

RESEARCH METHOD

The study employed survey study research method as the framework of systematic inquiry process. This research design is to collect precise description social phenomenon through social survey with a questionnaire (Mason, 2002). The study involved all students from the sophomore level of nursing department with the total of 72 students. In order to collect the data about the teacher and the students’ perception towards learning ESP through project based learning with technology-based project, a questionnaire was utilized.

The questionnaire was designed with open-ended questions to explore both perceptions towards the use of technology and project based learning. It was aimed at collecting qualitative data related to their perceptions. In addition some close-ended questions were also included in the questionnaire to collect the data related to students' expectations, obstacles, and advantage of learning PBL in ESP, as well as PBL in relation to autonomous learning.

The procedures of the study started with in-class teaching process. The teacher taught the students with all necessary lessons to support the projects they were going to do by the end of the semester. The teacher assigned the students to create a video as a project of the students in groups. The assigned task was to make a video about nursing cares conducted in the clinic with the stages of the conducts and the communication skills needed in each stage. The video should be created with their daily gadgets such as smartphone and laptop and then they were asked to edit and to post their works so that the other could see the results of their works. In short the process includes pre-task teaching for preparing the students, designing the concepts, making the scripts for dialogs, preparing the scenes, video recording, editing, self-evaluating and publishing. The questionnaires of were then distributed. The data collected from the questionnaires was analyzed.

RESULT AND DISCUSSION

Result

Students' Perception on PBL

The instructions designed by the teacher in this research were conducted under PBL approach to learn English for specific purpose (ESP) in nursing. Students were asked to create a project for making a nursing care video in English. Based on initial interview with the students in the class, making a nursing care video in English was their first experience. Previously they had never got any task like this. In general, right from initiating the project they felt interested. They argued that this would be something different from conventional learning they had every day. In conventional way, they usually learn with traditional approach where the lecturer explained the theory of English grammar and gave some examples of the use of grammar in daily life. Meanwhile, when they were assigned to conduct the project the students were given freedom to choose the topic of the nursing care and how they would set the video. The teacher only monitored and gave guidance. In

addition, the learning was not only conducted in the classroom but also in various places like laboratory clinic.

Some stages should be done by the students before they worked on the project. These stages allowed the students to learn various things in the process:

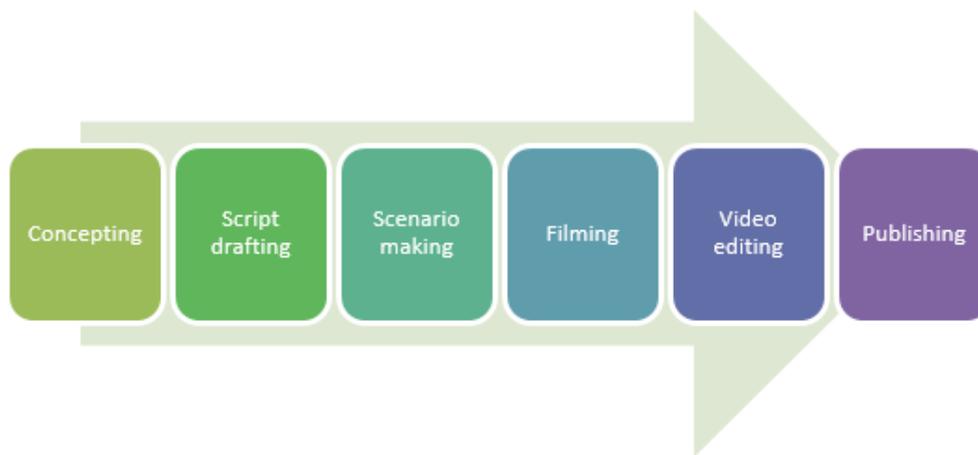


Figure 1. Stages in Video Making

The second response from the students was anxiety. Although the students were happy, some of them felt nervous as English was not an easy lesson for them. English as a foreign language was one of the most difficult language to understand for Indonesian students as it is not spoken in many occasions. So it is common that they felt anxious.

"I felt anxious because I think English is difficult, although later when we work on the project it was not as difficult as I imagined" (Student 33)

"I was very nervous especially when my friend asked me to be the narrator for our video because I cannot pronounce English properly" (Student 41)

Such response was normal for the students especially because they are not from English department. They thought that they would find multiple challenges like making the concept, creating narration, reading the script, etc. However, some other students respond very positively. It can be seen from their answers on the questionnaire:

"I think this was a good idea because on the one hand we can learn many new vocabulary directly from the real contexts not just reading it from a book, on the other hand we learn how to pronounce English when role play and also learn how to edit video" (Student 68)

"The first time I heard the teacher said it's going to be a project, I was very excited. I was sure that it would be very fun." (Student 25)

"I like studying like this. It motivates me to study English." (Student 8)

Learning English language through project brought positive effect for the students. They received new experiences, more vocabulary items as they are used when making the dialogues in the video, and more importantly they learn something new from editing the video. The students also felt that learning English through this kind of approach had something new to offer so that they were excited and experienced fun learning.

The teacher's perception on technology-based instruction with PBL approach

Incorporating PBL in learning activities was interesting for the teacher. First, this was because implementing the project was not very difficult at the implementation but not so easy at the initial stage.

"I have to think of the concept and prepare the guidelines for the students. The video that the students are going to make should be something that is related to their background and they know how to do it. Later they can put all together their ideas into English and pack them in the form of a video"

These are the challenges the teacher should consider when they decided to make a lesson with PBL approach. Since the students are free to decide what to do and how to make the concepts, the teacher should make sure that the students worked under the intended framework tasks. This was the first impression from the teacher.

Although the first impression that initial stage was not very difficult. The teacher found out that by undertaking this approach, the students could work outstandingly independent. He found out that the students were very creative in selecting the topics for the video.

"I was very surprised that the students could actually work independently. Starting from selecting the topics, making the scripts and recording the video, they work with their groups and sometimes asked for help from the teacher. They chose interesting topics such as how to inject medicine by using injection, how to measure blood pressure, how to set up infuse for the patients, and what to do when giving first aid to a victim of an accident."

Obstacles and Expectation

Some obstacles appeared when working on the project. The problems can come from various sources such as first-timers, teamwork, deadline, incompatibility of the devices, nervousness, and limited time to use the laboratory.

"I was surprised because this was the first time a teacher gave us assignment to make a video in English." (Student 7)

Technically, the students also often experienced problem with teamwork. From ten groups of the students, four groups reported some problem with their teammate. The problems can be of any shape, for example the character differences among group members, lack of coordination, and scheduling among the members. Another problem that appeared was that sometimes the devices (computer laptop and the Smartphone) used by the students were not compatible. However this could be solved. Such problem that occurred in the process should be an evaluation for the teacher in the future

In general, students have positive expectation on the project. They expected fun learning process and the results from the questionnaire have shown that most of them were interested in getting engaged with the activities of the projects.

“Shooting is a very pleasant experience, because there were some repetitions and sometimes some funny things happened.”(Student 2)

“It was fun because we can be as creative as we want.” (Student 3)

“Yes, it was fun; we can see our friends speak English although they did it again and again in making the video.” (Student 11)

From the script above it can be seen that the students saw this project based learning as a fun activity. In addition, the process was conducted repeatedly which makes them learn the vocabulary and the pronunciation from their dialogues. When asked about their satisfaction related to the results, 92% expressed their satisfaction and 8% was not satisfied. The details are presented on Figure 2.

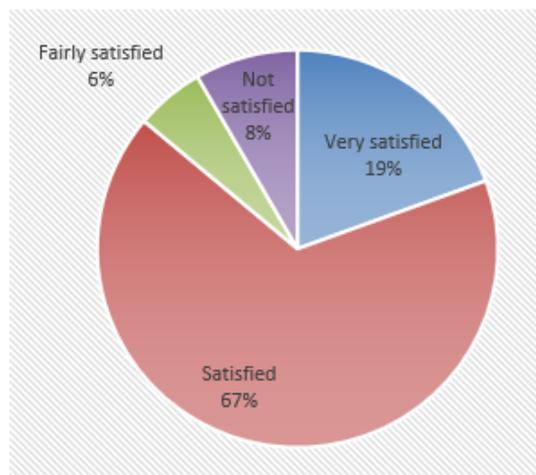


Figure 2. Students' work satisfaction

Based on the results on the question about what the factors that may influence the projects, in general there were five important pieces of information collected from the students. The details are described in the following table:

Table 1. Factors influencing students' project

No	The influencing factors
1	Teamwork Teamwork is the main factor that supports the success of the project. In order to do the project successfully, the students need a solid teamwork.
2	Creativity Creativity cannot be separated from this work of project. The students have freedom to make the video of their own as well making the concept.
3	Tools availability The tools needed for making the videos are smartphone, laptop, and of course the appropriate software. Although the majority of the students are using smartphone to record and edit their video, they still need to use laptops to collect the recorded files, and the suitability between devices is very crucial.
4	Video editing This soft skill is very important in the video finishing process. The students mentioned that they took the video scene repeatedly. The process of video editing took much time as they should select which parts of the videos should be included in the project.
5	Laboratory facility As the project was about making the videos for nursing cares, then laboratory was very crucial for taking the scene.

The learning through project based approach was intended so that the students could learn the content of the lesson set within experiencing the learning. However, there were some other things that the students believed they learned from doing the project as presented in the following table (one students may vote more than one option):

Table 2. Things the students learned

Aspects	Degree of percentage
Improving English language	91,5%
Improving self-confidence	87,3%
Learning to have good teamwork	88,7%
Soft skill (e.g. video editing)	46,5%

The advantages of PBL in the learning of ESP

Incorporating PBL, the teacher was expecting that the students would learn how to use English language in real-world context. The data collected from the questionnaire showed that PBL approach helped the students understand and use the language in more natural setting

"From this activity I could understand how to communicate as a nurse in English when dealing with dengue fever patients" (Student 1)

"I can communicate with the patient to tell about the blood pressure status." (Student 3)

"I can understand how to do good communication as a nurse when checking the patient's blood pressure, diabetes, etc." (Student 8)

The data above showed that the students did learn the target language through direct experience. It was expected that they would learn various medical communication in English in practical context. Therefore they could use it as part of language learning process out from the class.

PBL and autonomous learning

Project based learning has something to offer i.e. the autonomy in leaning. The goal of education is helping students to be independent learners and PBL has the properties that could enable them to be autonomous learners. Below are the excerpts of the students' statements about whether or not PBL approach motivates them to learn independently out of the class:

"I can repeat the videos more and more." (Student 5)

"I can use it to learn how to communicate with international patients." (Student 7)

"Yes, the video can be my study guide about communication between nurse and patient that can be example for me." (Student 10)

There were multiple opportunities for the students to be autonomous learner during the process of PBL. First, in the process of creating the video, the students started to look for the vocabulary necessary for their script. They had to include appropriate vocabulary and arrange them in to a well-structured sentence. The teacher was monitoring their work and helped them when seeing some errors. Second, it allowed them to acquire the new vocabulary items. This was because they directly practice the using the vocabulary in the video recording which normally conducted repeatedly. Third, the students were asked to present their work in front of the class after the project was finished. All the process in

creating the video as their project involved various language skills such as writing, reading, speaking, and listening. This also made the vocabulary acquisition faster.

Furthermore, the results of the project can be used for students' further learning. They can access them anytime and anywhere. They also uploaded the video on their personal social media that they can share with others.

"I can watch the video anytime anywhere; I don't have to come to the class to see it." (Student 32)

"Yup, I can upload the video on YouTube and people can also watch it as knowledge for the society." (Student 36)

Discussion

Project based learning has been viewed as one approach that support learning effectiveness. Not only is it effective for instruction process, it is also attractive for both students and the teacher. Theoretically the students can be more motivated, engaged, and involved in real-world problem solving which promote learning autonomy (Thomas, 2000). The findings of this study supported it (see students' perception responses and table 2). The students found learning English for Nursing in its specific context has been something frightening for the students but learning approach through project which is perceived as difficult task by the students had been proven that it was essentially engaging.

The teacher also could take benefit from such teaching approach that the students could learn by experiencing and the teacher had to make sure they learn the most of the lesson so that they can be well-prepared facing the disruption in the era of industrial revolution 4.0 (Rotterham & Daniel, 2009; Hashim & Hameed, 2012). In addition, by utilizing mobile technology that is currently widely available for the students, the learning has facilitated the 21st century skills (Garrison, 2011; Bell, 2010). PBL also promised the best practice of learning English for specific purposes as it ensured direct leaning experience (Hugerat 2016).

CONCLUSION

To conclude the points from this research, the investigation on students' and teacher's perceptions in technology-based classroom instruction as an effort of enhancing the quality of students' participation has come to a conclusion, that is the approach of PBL integrated with the current development of technology would be able to increase the positivity of learning environment. Although some obstacles were found during the process, students would be able to cope with the problems. Therefore the rate of involvement would increase.

Some factors influencing the project should also be a concern by the teacher as facilitator so that the learning process would smoothly be done in the future.

Some recommendations are also proposed. First, incorporating PBL in ESP learning has some benefits for both teacher and students. Therefore, it can be used in the learning process. Second, some research on how specific mobile application can be utilized in different types of project are potential to be conducted regarding most research in this area studied on how e-learning apps are plausible for learning in general contexts. Last but not least, teachers should also pay attention to the constraints in incorporating PBL in learning process so that it would hinder the students demotivation.

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