ELT IN FOCUS

IMPROVING STUDENTS' ABILITY TO DEVELOP ESP MATERIALS USING PROJECT-BASED LEARNING APPROACH

Suharyanto*
suh335@ums.ac.id
English Education Department, Faculty of Teacher Training and Education, Universitas Muhammadiyah Surakarta

Ahmad Prasetyo
a320200052@student.ums.ac.id
English Education Department, Faculty of Teacher Training and Education, Universitas Muhammadiyah Surakarta

Luluk Lutfiyah
a320200092@student.ums.ac.id
English Education Department, Faculty of Teacher Training and Education, Universitas Muhammadiyah Surakarta

Abstract

English for Specific Purposes (ESP) course is taught to students of English Education Department, Universitas Muhammadiyah Surakarta. One of the aims of this course is to prepare the students to be able in designing specific course and materials for targeted students from various background and occupation. Since the pandemic, the teaching and learning process in UMS has been focused on being online both synchronous and asynchronous, including ESP course. Students are required to be able to study independently and look for learning resources beyond what has been conveyed by the lecturers. In delivering the material, teacher mostly used virtual meetings or through learning videos shared in Learning Management System. With the large number of students in the ESP class, the interaction between lecturers and students is very limited. To overcome this situation, researcher used Project Based Learning (PBL) in conducting the teaching and learning process. The project focused on designing the ESP materials for specific targeted students. The result showed that project-based learning approach is able to facilitate students to be able to improve their ability in designing the ESP materials during this pandemic situation.

Keywords: *English for Specific Purposes, Project Based Learning, Needs Analysis, ESP Materials*

INTRODUCTION

ESP course is taught to students in the English Education Department, Universitas Muhammadiyah Surakarta. The purpose of this course is to make the students to be able to understand the concept of ESP and be able to create programs and materials that are suitable for the needs of students who have a specific background in the field of science and profession of language users, such as English for agriculture, medicine, economics, online drivers, chef, and more. Hutchinson and Waters (1987) defined that ESP is a language

learning approach that is based on the needs of the learner which means that all content and methods are based on the needs of students. It aims to accelerate the learner through known goals which means that everything in it is predetermined which makes this approach different from General English (Basturkmen, 2010). The basic difference between ESP and General English is that the language taught is adapted to the needs of students in certain disciplines (Dudley & Evan 1997; Kitkauskienė, 2006).

Teaching ESP needs to use methodologies and activities from a variety of disciplines. It focuses on the languages, grammars, discourses and genres, of those disciplines rather than using general grammar, learner dictionaries and general public genres and discourses. These characteristics are broad and distinguish ESP from general English courses where ESP students are assumed to have a general knowledge of the English language. The purpose of learning a language is to communicate in a particular academic, occupational or professional domain. The above definition shows that the main focus of ESP is the needs of the learner. The content and methods of language teaching in ESP are based on the learner's reasons for learning. In addition, this need will determine what the learner should do in learning the language.

Hutchinson and Waters (1987) classified ESP based on the general nature of the learner's needs. ESP is divided into three broad categories: (a) English for Science and Technology (EST), (b) English for Business and Economics (EBE), and English for Social Sciences (ESS). Each category is divided into two smaller categories to differentiate the two situations, namely English for Academic Purposes (EOP) and English for Occupational Purposes

(EAP). Hutchinson and Waters (1987) suggested that there are two basic needs of ESP students: target needs and learning needs. Target needs can be classified into three points, namely needs, lack, and wants. 'Needs' are the types of needs defined by the target situation, i.e. what they must know in order to learn effectively in the target situation. In contrast, 'lacks' are gaps between what learners already know and their need to understand the material. If 'needs' are standards that learners have to achieve and 'lack' are gaps between what they have to achieve and what they don't have, then, 'wants' are goals that the learners themselves will achieve.

So far, the main goal in teaching ESP courses is to provide students with an understanding of the basic concepts of ESP. In addition, students are also required to be able to implement the theory taught in class, into a structured ESP teaching program. Here, students also have to make ESP learning materials that are in accordance with the target students. Beside teaching theory, teachers also need to assist students in preparing programs and ESP learning materials.

Since the pandemic, the teaching process at UMS has focused on being carried out online. Therefore, the interaction between lecturers and students is very limited. Students are required to be able to study independently and look for learning resources beyond what has been conveyed by the lecturers. The online teaching given in ESP classes is also need to be improved, both synchronous and asynchronous. The method given in delivering the material is mostly done using virtual meetings or through learning videos. The interaction between lecturers and students is very limited. In addition, with the large number of students in the ESP class, it becomes one

of the obstacles for lecturers in conditioning students to be active in every virtual discussion. However, with many obstacles in online teaching and learning process, the goals of ESP are still need to be achieved. Students need to be able to make course design of ESP and creating ESP learning materials.

To overcome the obstacles of teaching and learning process in this pandemic situation, one approach that can be taken is the use of Project Based Learning (PBL). This approach is able to facilitate students to be able to learn independently (Jones, Rasmussen, & Moffitt, 1997; Thomas, Mergendoller, & Michaelson, 1999) and can increase students' motivation in the learning process (Lam, Cheng, & Ma, 2009; Hilvones & Ovaska, 2010). In addition, Project-Based Learning approach will direct the classroom atmosphere to be more student-centered and increase student involvement in the learning process (Robinson, 2013; Johnson & Delawsky, 2013; Aiedah & Lee, 2012).

Project-based learning (PBL) is an active student-centered form of teaching characterized by student autonomy, constructive inquiry, goal setting, collaboration, communication, and reflection in real-world practice (Kokotsaki, Menzies, & Wiggins, 2016). It has been explored in various contexts and in different phases of schooling, from primary education to higher education. Problem Based Learning can also be said as an educational strategy, a method to regulate the learning process in such a way that students are actively involved in finding their own answers (De Graaft & Kolmos, 2007). Arboleya & Las-Heras (2014) also stated that this approach emphasizes students to be more independent in the learning process. Students cannot only refer to what is conveyed by the teacher, but they must always be active in seeking information without waiting for instructions from the teacher. In its implementation, the project-based learning approach must adapt the learning process by following several stages to create interaction between teachers, students and learning media in accordance with the characteristics of Project Based Learning itself (Jalinus, Nabawi, & Mardin, 2017).

METHODS

This research was action research and conducted at the English Education Study Program, Universitas Muhammadiyah Surakarta. This research was carried out for three months from August to October 2021 in the odd semester, 2021/2021. The subjects in this study were students of the seventh semester of the English Education Study Program who took the English for Specific Purposes class. The number of students involved in this research was 40 students.

This study adapted the procedures of the Kemmis and McTaggart model. There were four main stages in each cycle; namely planning, action, observation, and reflection. In more detail, the process can be seen in the following figure 2.1. It is shown that the research was conducted at least in two cycles.
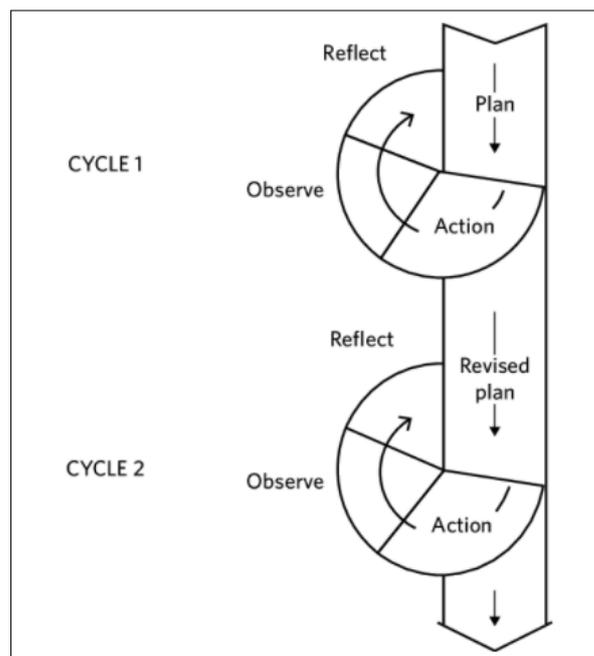
Figure 1. *Kemmis and Mc Tagart's Classroom Action Research Model (Altrichter, et al, 2002)*

Planning

In this stage, the researcher prepared an activity plan that was applied during the teaching and learning process in the classroom. This planning was referred to the results of observations and reflections on teaching activities that have been carried out last year while in charge of ESP courses. At this stage, the researchers prepared the RPS (Lesson Plan), evaluation instruments, observation guide sheets and interview guides. The steps for learning activities using a project-based approach were also be prepared in detail at this stage.

Acting

In this stage, the implementation of teaching using a project-based approach was carried out from September to December 2021. This implementation process was carried out in three cycles, adopting the concept of classroom action research from Kemmis and Mc Taggart.

Observing

During the implementation, the researcher here also observed and recorded the results of the implementation in the classroom. Researchers paid attention to what is found in the implementation process. The results of observations and notes during this learning process then became a reference in the reflection process.

Reflecting

Reflection was done after the action is completed. All members of the study discussed the circumstances regarding the results of this implementation. It aims to find out whether the action is successful or not. When the action taken was considered successful, then the researcher continued to carry it out in the next cycle. However, when the action was not successful, the researcher tried to manage corrective actions to be applied in the next cycle.

FINDING AND DISCUSSION

This research is an action research. The researcher conducted this research in three cycles on implementing the Project based Learning in the ESP class.

Cycle 1

Planning

This research was started by preparing the lesson plan and the materials to be implemented in the project. Focus of the project was to develop the ESP materials, so, researcher and team also prepared some example of the materials.

Acting

For this stage, researcher started to introduce the project via zoom meeting. In this activity the lecturer explained the activities that must be carried out during the implementation of the project.
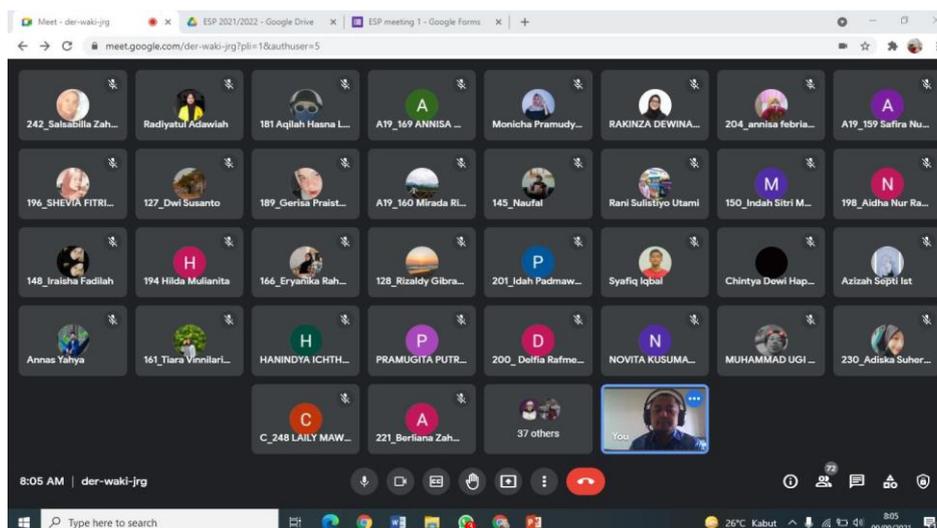

Figure 2. *Researcher Explaining the Project for the Students*

For the next step, it was continued by forming student groups that will conduct the projects prepared. There were 20 groups that each group consisted of 5 members of the students. Every student discussed with the other group members to decide the topic and "target students" for each group. Table 1 showed the result of the discussion of the group and target students they have been chosen.

Table 1. *The Target Students for Each Group.*

No.	Group	Target Students
1.	Group 1	English for Culinary Students
2.	Group 2	English for Batik Seller
3.	Group 3	English for Law Students
4.	Group 4	English for Photographer
5.	Group 5	English for Business Student
6.	Group 6	English for Waiter/Waitress
7.	Group 7	English for Online Shop Seller
8.	Group 8	English for Pharmacist Students

ELT IN FOCUS

At this stage, the students in groups made a needs analysis instruments (questionnaire, interview questions) that was used for collecting the data of the target students. By using the list of interviews and questionnaires that have been prepared, the students collected the information related to the needs of their prospective target students. After the data were collected, then they were analyzed and became the basis for developing the ESP materials.

Observing

The researcher and his team monitor the students' works on conducting needs analysis to the targeted students they have been chosen.

Reflecting

In this stage, researcher made the reflection of the students work on conducting the needs analysis and the effectiveness of the group work. The reflection was conducted online via zoom meeting. During this reflection process both researcher and also the students as the subject of this research share the idea and thought regarding the action in this first cycle. There are some concerns faced by the students regarding the involvement of each group.

Cycle 2

Planning

The focus on this stage was to develop the ESP materials based on the result of the needs analysis conducted in first cycle. Based on the results of the reflection in cycle 1, it was found that the students have difficulty in dividing the works that should be done by each member of the group. To tackle the problem, the researcher and the team asked the group to create the number of the unit of the materials based on the number of the students so that each member of the group can work equally.

Acting

In this stage, students develop the ESP materials based on the targeted students chosen. The number of unit that was developed by each group should be 10 units, which is divided into 5 students. Therefore, each students needs to make 2 units of the materials developed. The development of the unit was based on task based –materials design and consisted of four skills in each unit, which are listening, speaking, reading and writing. There is the example of the students worked in the picture 3.2 below.

Students focused on developing on their first draft of the ESP materials based on the result of their needs analysis in the first cycle.

Figure 3. *Example of ESP materials of the Students*

After the students finished the first draft of the materials, the researcher gave the feedback for the materials they have designed. Feedback was given based on the common mistakes from the entire group in designing the materials. The feedback will be used as the improvement of the ESP materials in the next cycle. The feedback giving was conducted online via zoom meeting.

Observing

Almost same with the cycle one, in this stage the researcher and team focused on monitoring action of the students on developing and revising the ESP materials. Researcher monitored both the process of revising the materials as well as the involvement of each member of the group.

Reflecting

In this stage, researcher made the reflection on how the discussion with the students conducted in giving the feedback of the group works. Feedback was given based on the common mistakes from the entire group in designing the materials. The feedback will be used as the improvement of the ESP materials in the next cycle. The feedback giving was conducted online via zoom meeting. The result showed that the common feedback provided was not enough for the group since they have the different speed and understanding in analyzing the feedback provided.

Cycle 3

Planning

Same with the previous cycle, the focus on this stage was to develop the ESP materials based on the result of the needs analysis conducted in first cycle. In order to help the students to improve the quality of the ESP materials, the researcher and team provide the list of common weakness and mistakes of the ESP materials of the whole group so that they could avoid the mistakes.

Acting

The focus on this stage was to revise the ESP materials based on the feedback provided in the previous cycle. After students finished the revision, researcher gave the feedback for the revised materials. In this cycle, researcher not only provided the common feedback for the whole group, but also gave the feedback directly for each group based on their specific problem in designing the materials.

Observing

Almost same with the cycle one, in this stage the researcher and team focused on monitoring action of the students on revising the ESP materials. Researcher monitored both the process of revising the materials as well as the involvement of each member of the students in their group.

Reflecting

In this stage, researcher made the reflection on how the discussion with the students conducted in giving the feedback of the group works. The feedback is given both for the common problem and also directly specific for each group.

In brief, the implementation of Project based Learning in ESP classroom can be divided into four stages. In the first cycle, students focused on choosing the target students and conducting the needs analyses for their target students. In cycle 2 and 3, students developed and revised the learning materials for the targeted students they have chosen in the

previous stage. Table 2 below presents the detailed activities of the

implementation of Project based learning in ESP class.

Table 2. *The Implementation of Project based Learning.*

Stages	Cycle 1	Cycle 2	Cycle 3
Speculation	The writers explained the project and prepared the example of the ESP target students and needs analysis instruments	The writers prepared the example of the needs analysis result and ESP materials.	The writers explained the common weakness and mistakes of the ESP materials of the whole group
Designing the Project Activities	In group, students discussed on choosing the target students and prepare the instruments of needs analysis instruments.	In group students discussed on the specific task for each members in designing the ESP materials	In group students discussed the weakness of their own ESP materials
Conducting the Project Activities	Students in group began to implement the plans they have discussed in the previous stage and started to do needs analysis to the targeted student	Students in group began to make the ESP materials based on their needs analysis	Students in group began to revise the ESP materials based on the feedback given
Evaluation	Feedback was given for the students regarding needs analysis and first draft of the materials	Feedback given for the common mistakes of the materials made by the groups	Feedback was given directly for each group one by one

The project focus in the first cycle of this research was defining the targeted students and collecting the data of the targeted students through needs analysis. In, this stage all the members of the group needed to work together in collecting the data. The data instruments were questionnaire and or interview questions for the groups. The data, then analyzed qualitative and quantitatively as the basic instruments for the students in developing the learning materials of the targeted students.

One of the problems in this cycle was the involvement of each member of the groups which is quite difficult to manage. Most students worked remotely since this pandemic situation and the discussion of this project was mostly conducted with virtual meeting or WA group. For this stage of data collection and analysis, most of the group did not share the workload equally for each member. Therefore, most of the work was centralized and dominated in one or two students of the group. It can be seen from the interview transcript below:

> *"kemarin yang datang interveiew ke sekolah hanya kami berdua pak, soalnya yang lain masih di rumah orang tuanya dan belum ke kampus jadi tidak bisa ikut."*

In the second cycle, focus of this project was developing the ESP materials for the targeted student of each group. In this stage, researcher tried to manage the workload of the students equally by defining the numbers of the unit that needed to be made for each group. Each group had to make 10 unit of ESP materials, so each member of the group had the responsibility to make 2 units each. By doing this, the involvement of the students was easier to control rather than in the first cycle. In this stage, researcher also gave the feedback for the whole group based on the finding of the problem or mistakes of the draft. The feedback was given in the form of common mistakes from the entire group, such as composition of task, content, grammar, and choice of the words. Then, students needed to revise their first draft based on the feedback given.

In this cycle, the problem student's involvement was more controllable since every member of the group has the specific unit that needed to be developed. However, the feedback given in this stage was not really effective since the feedback given was common problem and was delivered to the entire group in one time. This is mostly because every group has their own specific problem and obstacle in developing the materials. As the result, the number of the mistakes in the materials has not been revised properly. It can be seen from the figure 4, that there are still many aspects of the unit that needed to be improved.
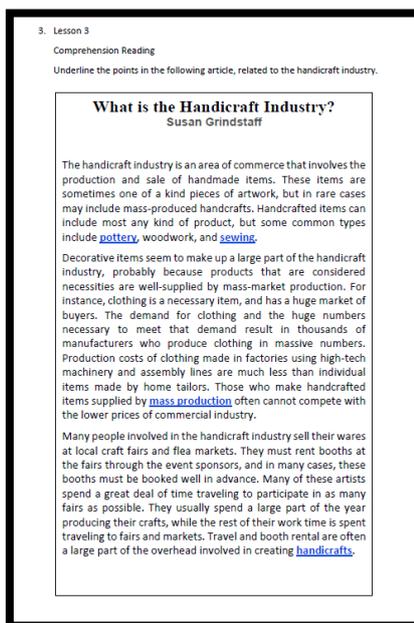

Figure 4. *The Draft of the Materials in Cycle 2*

In the cycle three, the focus of the project is making the revision of the unit of each group. The researcher also changed the approach on delivering the feedback to the students. The feedback was given directly to each group and based on the mistakes and problem of the unit. In this case, the revision of the unit could be more specified and the aspect of the feedback can be various depend on the unit. Figure 5 showed the development of the unit which is better than the revision in the previous cycle.
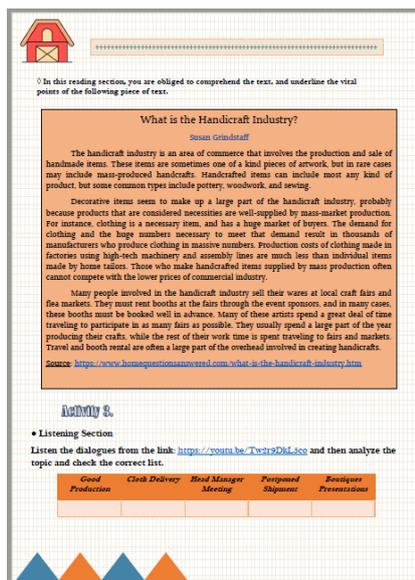
71

Figure 5. *The Draft of the Materials in Cycle 3*

CONCLUSION AND IMPLICATION

Based on the finding and discussion of this study, it can be seen that the implementation of Project based Learning is effective to improve students understanding and ability to develop ESP materials. The involvement of each student during the class can also be maximized since they are working in a group and each member of the group has their own specific task to complete the project given. Students have their opportunity to get involved in the learning process from the project given, rather than just listening to the teacher in virtual meeting or discussion. In addition, the implementation of project based learning in ESP classroom created the opportunity for the students to have real experience in creating the specific materials for the target students they have been chosen.

AUTHORS' CONTRIBUTIONS

This research article is one of the outcomes of a work hard of Suharyanto as the main researcher with the other two members of research group, Ahmad Prasetyo and Luluk Lutfiyah.

ACKNOWLEDGMENTS

REFERENCES

Aiedah, A. K., & Lee, K. C. (2012). Application of Project-Based Learning in Students' Engagement in Malaysian Studies and English Language. *Journal of Interdisciplinary Research in Education (JIRE)*, *2*(1), 37-46.

Altrichter, H., Kemmis, S., McTaggart, R., & Zuber-Skerritt, O. (2002). The Concept of Action Research. *The learning organization*.

Arboleya, A., & Las-Heras, F. (2014). Improving independent learning and communication skills of students in last year of engineering degrees through the use of Project-Based

Learning methodologies. In *2014 XI Tecnologias Aplicadas a la Ensenanza de la Electronica (Technologies Applied to Electronics Teaching)(TAEE)* (pp. 1-7). IEEE.

Basturkmen, H. (2010). *Developing courses in English for specific purposes*. Springer.

De Graaff, E., & Kolmos, A. (2007). *Management of change: implementation of problem-based and project-based learning in engineering*. Brill.

Dudley-Evans, T. (1997). An Overview of ESP in the 1990s.

Hilvonen, J., & Ovaska, P. (2010,). Student motivation in project-based learning. In *International Conference on Engaging Pedagogy*.

Hutchinson, T., & Waters, A. (1987). *English for specific purposes*. Cambridge university press.

Jalinus, N., Nabawi, R. A., & Mardin, A. (2017). The seven steps of project based learning model to enhance productive competences of vocational students. In *International Conference on Technology and Vocational Teachers (ICTVT 2017). Atlantis Press*.

Johnson, C. S., & Delawsky, S. (2013). Project-based learning and student engagement. *Academic research international*, *4*(4), 560.

Jones, B. F., Rasmussen, C. M., & Moffitt, M. C. (1997). Real-life problem solving.: A collaborative approach to interdisciplinary learning. Washington, DC: American Psychological Association.

Kitkauskienė, L. (2006). General English and English Forspecific Purposes (ESP). *Santalka: Filologija, Edukologija*, *14*(2), 88-92.

Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. *Improving schools*, *19*(3), 267-277.

Lam, S. F., Cheng, R. W. Y., & Ma, W. Y. (2009). Teacher and student intrinsic motivation in project-based learning. *Instructional Science*, *37*(6), 565-578.

Robinson, J. K. (2013). Project-based learning: improving student engagement and performance in the laboratory.

Thomas, J. W., Mergendoller, J. R., and Michaelson, A. (1999). Project-based learning: A handbook for middle and high school teachers. Novato, CA: The Buck Institute for Education.