SHARPENING 21ST CENTURY SKILLS THROUGH PROJECT-BASED LEARNING IN ESP

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Abstract
Offering a conceptual idea, this paper aims at discussing how project-based learning (PBL) can be implemented in English for Specific Purposes (ESP) classes in order to sharpen students' 21st century skills and also to enhance their reading and speaking skills. Along with the development of ICT, the ways the students learn are also shifted. Our students, who belong to the 21st century learners, are also expected to be endowed with certain skills which make them able to compete in the professional world after they graduate. The 21st century skills are among others the 4C which stands for Critical thinking & problem solving, Creativity and innovation, Communication and Collaboration. In light of this, this paper argues that project-based learning is deemed suitable to become an approach in designing and conducting ESP classes to develop students' reading and speaking skills as well as their 4C. By applying PBL, students will have opportunities to learn English contextually through some projects that are designed to match their future working field. In addition, this paper provides some practical ideas that can be implemented in a PBL-based ESP class.

Keywords: 21st century skills, Project-Based learning, English for Specific Purposes, reading, speaking

Introduction

English for Specific Purposes (ESP) classes first emerged around 1960's as a response to the development of English as the lingua franca for education, technology, science and business. As a global language, English serves as a language of expanded communication and can accommodate both global and local needs (Mckay, 2002). Therefore, the need for learning ESP is real as it helps learners to master English language in that they can contest and contribute in this globalized world based on their professional expertise.

In Indonesia, the need for ESP is also increasing from time to time. In higher education level, English language is generally offered as a compulsory course that a student must pass. Many universities or colleges even set some requirements that demand their students to get certain score in an English standardized test such as TOEFL (Test of English as a Foreign Language) and TOEIC (Test of English for International Communication). As a result, this fact poses some challenges for ESP teachers or lecturers to conduct ESP classes which are appropriate for the students' academic needs. Furthermore, another challenge that an ESP teacher may face is

coping with low-motivated students since the students may not show any interest in learning English language. Coming from various majors, those students may think that learning English is not important. In fact, being competent in English, particularly in reading and speaking, may add some values in their future career.

On the other hand, the swift development of information and communication technology (ICT) has made students possess easy and effortless access to the Internet through their laptops and/or smartphones. Thus, ICT advancement has also brought huge impact in the way they learn. Today's era also urges students to possess particular skills as one of the ways to survive in the international competition. Hence, students are obliged to sharpen their 21st century skills in order to be competitive in such modern, demanding, and dynamic society.

Those complexities and interlinked factors have led many lecturers to consider the advantages of enforcing project-based learning (PBL) into their English language classes. As an approach, PBL helps students to collaborate with their peers to accomplish certain projects. Through the process, students are expected to elevate their language skills along with other skills, such as communication and critical thinking skills. The advantages that PBL offers seem to match the 21st century skills that have been briefly discussed. The next sections of this paper will give more description of PBL with regard to ESP and elaborate the 21st century skills. Then, some practical ideas related to how PBL can be applied in ESP classes to teach reading and speaking will be presented.

Project-Based Learning in ESP

ESP is simply defined as a language learning approach based on learners' needs (Hutchinson & Waters, 1987). In short, the needs of the learners should first be analyzed before the lesson is designed. There are some principles of ESP as suggested by Dudley-Evans and St John (1998). First, ESP should manage to meet the demands or purposes of the students. Second, ESP should apply elemental methodology and activities of the subject of study in which it is offered. Third, the language elements that are being learned should match the activities. Thus, it is clear that the words "specific purpose" become the key because learners might have different purposes in learning English language. For instance, in learning English, students majoring in Informatics Engineering certainly have different purposes from those studying Communication Studies. As a result, the materials, activities, and vocabulary learned will certainly vary.

The next question will be "how does PBL fit ESP?" Project-based learning is an approach to learning which is student-driven and teacher-facilitated (Bell, 2010, p. 39). Central to PBL is an inquiry. Thus, students are driven to answer or solve challenging questions. The inquiry may require students to construct ideas, figure out problems, determine solutions, or run investigations on certain activities (Thomas, 2000). As suggested by Stoller (2006), there are ten characteristics of PBL: (1) it involves a process as well as a product; (2) the activity gives students a sense of ownership of the project; (3) the project is accomplished over a time frame or period of time; (4) PBL integrates skills; (5) the language and the content are integrated; (6) students work both individually and in groups; (7) students are accountable for their own process of learning; (8) PBL assigns new aspects, roles,

and responsibilities to both students and teacher; (9) the ultimate product is tangible; and (10) some reflection should be done on both the process and the product. In the same vein, the Buck Institute of Education (2013) also highlights eight characteristics of PBL, which are: (1) important key knowledge, understanding, and success skills; (2) problem or question which is challenging; (3) sustained inquiry; (4) authenticity; (5) student's voice and choice; (6) reflection; (7) critique and revision from teacher and peers; and (8) public product.

After reviewing the characteristics of PBL, it can be concluded that the approach seems to fit ESP well. First, in a PBL-based class, the students might likely be more motivated in learning English because the outcome of the course will be a project, not a written test which focuses on language elements, such as English sentence structure. It may be able to tackle problems related to low motivation in ESP classes. Second, the project is built on real professional world demand which they may have in the future. Thus, they will be exposed to vocabulary or topics related to the subject matter. Third, in PBL students are required to work in groups. By working collaboratively, students can help one another, which makes it easier for them in learning English.

The 21st Century Skills: An Overview

According to Munteanu (2016), the 21st century skills refer to a set of abilities that students need to obtain in order to persevere in the information society. Partnership for 21st Century Skills or P21 (2015) proposes three types of skills, namely: life and career skills, learning and innovation skills, and information, media, and technology skills. Life and career skills circumscribe flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility, while information, media, and technology skills encompass information literacy, media literacy, and ICT literacy. Due to the scope of the discussion, this paper will solely focus on the skills closely related to teaching and learning process, which are "learning and innovation skills".

According to P21 (2015), learning and innovation skills cover 4C, namely: Creativity and innovation, Critical thinking and problem solving, Communication and Collaboration. Furthermore, P21 (2015) suggest that the first C (creativity and innovation) covers skills to think creatively, work creatively with others, and implement innovations. The second one, which is critical thinking and problem solving, is the ability to reason effectively, use systems of thinking, make judgments and decisions, and solve problems. The last two Cs –communication and collaboration- refer to skills to communicate clearly and collaborate with others.

Reading and Speaking Skills in ESP

Commonly, of the four English language skills (listening, speaking, reading and writing), reading and speaking skills may become the focus of ESP classes. The underlying reasons for focusing on those two skills may lie on the applicability after students plunge in their work fields. The ability to read texts in English will help them in getting more information related to their expertise. Meanwhile, the ability

to speak in English is by far considered as the ultimate goal in learning English, be it in an ESP class or any English language lessons in general.

Reading is known to be a cognitive activity which is complex even in a general ESL (English as Second Language) or EFL (English as a Foreign Language) class. According to Harmer (2001), reading materials' authenticity also produces serious difficulty to students, because no concessions are made to foreign language learners who come across non-simplified content (as cited in in Kavaliauskiene & Kaminskiene, 2009). In ESP, reading may be more complex as it requires students to deal terms specific to certain subject areas. Harmer also stated that students are extremely demotivated because of reading authentic materials, and previous unsuccessful experience leads to negative expectations of reading (2001 as cited in Kavaliauskiene & Kaminskiene, 2009). Thus, often times teaching reading skills is considered challenging by ESP lecturers.

In addition to reading skills, the ability to speak fluently and accurately may become a desirable goal. Thus, ESP generally puts a strong emphasis on speaking. MehilliKolaj (n.d.) maintained that providing opportunity for students to speak in the language classes is vital; otherwise, they will lose interest and motivation in learning. However, studies on speaking in ESP classes have revealed that students faced difficulties in their speaking performance. A study by Kavaliauskiene (2013) reported students' attitudes towards speaking activities. The findings suggested that students gave more positive attitudes to short talks and discussions. On the contrary, they faced difficulties in spontaneous speaking. Hence, ESP lecturers be able to cope with the challenges in developing students' reading and speaking skills.

PBL, 4C, Reading and Speaking Skills: Putting Them Altogether in an ESP Class

After describing and discussing PBL, 4C, and reading and speaking skills, this part will provide some justification on why they all can be interwoven in an ESP class. According to the project framework suggested by Beckett and Slater (2005), an English project consists of three main parts: content, language, and skills. As students are given a project of which theme is closely related to their major or subject of study, they are expected to also gain some knowledge related to the content. For illustration, a group of Medical learners are asked to make a brochure which contains information on 'blood cancer'. As a result, they will obtain as much information as needed related to the topic to write the content of the brochure. The language competence can certainly be developed when students work in groups as they share and acquire knowledge through a project using English. They will expand their vocabulary bank and also enhance both their fluency and accuracy in using the language.

The last part, which is skills, seems to be well-accommodated in a PBL-based ESP. Particularly, they will develop their 4C as well as reading and speaking skills. When completing the project, the students need to gather information through reading source material. In other words, students will exercise their reading skills. To be able to comprehend the texts, students need to apply some reading strategies as well as to know the meaning of particular vocabulary. With this kind of approach, it is expected that the students' reading motivation can be maintained since the content is relevant to their object of study. In addition, the students' critical thinking

and problem solving can be sharpened during this process. They need to critically think to decide which reading material is appropriate for the project.

Then, in order to complete the project, students will practice their creativity and innovation, as well as communication and collaboration skills. First, they need to think creatively how to employ the information to make a great project. They will work together in a group and accommodate ideas from each member of the group which may develop their communication skills. In addition, the students will learn to have critical thinking and problem solving when there is dispute among group members. In this stage, students will also exercise their speaking skills as they discuss and explain their project orally through speaking. Finally, when the project is done, they need to convey the result through presentation which certainly requires them to practice their speaking skills.

Some Practical Ideas

Below is an example that provide some practical ideas on how PBL can be conducted in an ESP class to improve students' 21st century skills as well as reading and speaking skills. This example is designed for Informatics Engineering students.

Topic   :   "Designing a New Gadget"

Objective   :   To design a new gadget that is affordable and sophisticated that helps people lead a better life.

Procedures   :

- Introducing the topic (Skills to practice: Critical thinking, communication, and reading skills)
    - In this stage, the lecturer introduces the students to a text based on a given topic. The topic is related to information and communication technology (ICT). Thus, the selected texts presents some information on the first smartphone.
    - After reading the text, the students are to answer some comprehension questions and vocabulary items.
    - Then, students are put in groups (of three or four) and are given questions that will elicit their opinions. They are to discuss in groups and share their opinions with the other groups afterwards.
    - By the end of the meeting, students are given a project to do. The project is to design a new gadget. They should make the design in a form of a poster.
- Group work (Skills to practice: 4C, reading & speaking)
    - Outside the class, the students are assigned to read materials needed to make the design. They can choose any texts which will help them in designing the products.
    - They should discuss in groups and each of them is required to write a journal which records the progress of their discussion.
- Product presentation (Skills to practice: creativity and innovation, communication and speaking)
    - In turns, each group should present their poster.
    - Other groups may give questions or suggestions to develop the design.

Conclusion

This paper has attempted to elaborate how PBL may fit in ESP classes. As an approach, PBL offers opportunity for ESP students to work collaboratively and to foster their 4C (creativity & innovation, critical thinking & problem solving, communication and collaboration) and also their reading and speaking skills. Built upon the content that is closely related to students' subject of study, PBL may also become one technique to tackle problems related to students' low learning motivation. Hopefully, by applying PBL, lecturers can assist their students better in making the most of their English language learning and help them acquire skills they need to participate in the knowledge society.

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