University Students' Perspectives Towards Using Survey Project Work in English for Science and Technology Courses

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Abstract

Many benefits of using project work in English language classrooms have been shown in several studies. Students could develop their language skills, collaborative skills, research skills and other skills that they can apply in their future jobs. The aim of this present study is to investigate the benefits that university students gained as well as the difficulties they faced when learning English for Science and Technology courses through survey project work. The participants were 93 undergraduate students from the Faculty of Science and Technology and other faculties studying at a university in Thailand. Both quantitative and qualitative data were collected from a questionnaire and from students' reflections. The study showed that the students had good attitudes towards learning by doing a survey project. They revealed its benefits in terms of improving language skills, especially speaking skills. The students also agreed that they were more responsible, had developed their learner autonomy, and had improved

research skills and other useful skills connecting them to the real world. Regarding their difficulties, they responded that they had problems with time management and lacked collaboration from some team members when doing survey project work. The results of this study could help teachers to employ this method in their classes systematically and successfully.

Introduction

According to the education policy of several universities in Thailand, the process of teaching and learning focuses on active learning, outcome-based learning and project-based learning. The method of teaching English language for university students is aimed at providing students with a certain English language proficiency level and important skills for their future jobs. In order to follow the policy of the university and prepare undergraduate students for the real world, project-based learning is being considered for use in teaching English for Science and Technology courses.

Project-based learning, or project work, is an essential part of English classes at the university. When teaching English as a foreign language, students can benefit in different ways from this creative approach (Jansing, 2011). It is one of the most exciting developments in language teaching, which combines in practical form both the fundamental principles of a communicative approach and the values of good education (Hutchinson, 1996). The projects also help students use language in a meaningful way. When the students interact with each other in their project work, they can improve reading, writing, speaking, grammar, vocabulary, and negotiation skills (Keleş, 2017).

It is hoped that when students finish higher education, they can apply their knowledge of subject matters and their English language skills in their future jobs. Therefore, it is necessary for them to improve those useful skills prior to their careers. This idea is also related to what Agustina (2014) stated in that "English for specific purposes is understood to be about preparing students to use English within the academic, professional or workplace environment, where the language is going to be used." In the context of English for specific purposes like science and technology, "English is not solely a subject matter to be learned as it is commonly placed as one of compulsory subjects in the curriculum, but it is also a

means for students' learning in their field of study" (Augustina, 2014, p. 42).

Although the project method can be used in English language classrooms as an effective tool for improving students' communicative competence and other skills for their future careers, the problem that the researchers found was that if the method is not set up appropriately or systematically, the project task may be difficult when using this method. Because of this, the principles of this method as well as some of the difficulties involved in using project work should be explored. It is possible that this research can help teachers who teach English for Science and Technology courses effectively employ this kind of teaching as a means of improving their students' English language abilities. Therefore, in this study, the students' perspectives towards the benefits of project work as well as the difficulties they faced while doing the project work in English for Science and Technology courses were investigated.

Literature Review

Definitions and Types of the Project Work

Researchers from previous studies have defined project work in several ways. Legutke and Thomas (1991, p 160, cited in Lípová, 2008) defined project work as

> a theme and task-centred mode of teaching and learning which results from a joint process of negotiation between all participants. It allows a wide scope of self-determined action for both the individual and the small group of learners within a general framework of a plan which defines goals and procedures. Project learning realizes a dynamic balance between a process and a product orientation. Finally, it is experiential and holistic because it bridges dualism between body and mind, theory and practice.

Also, as proposed by Mahrová (2010, p. 10),

> in educational context, the project work should be a student-centered activity, not a teacher-centered or syllabus-centered one. The students have to understand why they make a project and how it is useful for them. The best way is when they can choose the topic of the project themselves.

They usually work in groups and they develop their social skills to cooperate and communicate together. They choose the way of work, divide tasks and agree on the output of the project.

When students work in groups, they have an opportunity to enhance their knowledge, apply it critically and creatively and gain important skills to prepare for real-life situations in the future (The Minister of Education Singapore, n.d.). Various types of projects that students can perform have been proposed. For example, according to Legutke and Thomas (1991), project work in English language learning is divided into three types as follows:

1. Encounter projects: This type of project allows students to be exposed to native speakers directly, as a short visit, a class trip or a school exchange.

2. Text projects: In this type of project, the students work with various materials, like literature texts, newspapers and magazines, video and audio materials.

3. Class correspondence projects: This project combines both encounter projects and text projects.

The project work is also divided into four main categories (Haines, 1989, p. 1):

1) Information and research projects 2) Survey projects 3) Production projects and 4) Performance and organizational projects.

For this current research, the researchers chose survey projects as assignments for the students to practice. The reason for using this type of project in the study was that it enabled students to use the subject matter they learned from the English for Science and Technology courses in their project work. After conducting a survey, they could present the data in the form of different types of graphs, which they learned from the textbooks. Also, the students could gain the opportunity to develop their language skills, social skills, cooperative skills and the ability to do research from this type of project work. Working with a survey and presenting research findings was a great experience for the students. In addition, the opportunity for students to investigate and develop their awareness and insight to issues they were interested in was valuable (Waldern, 2015).

The Benefits of Using Project Work in English Language Classrooms

Previous studies have shown advantages of using project work in the classroom. According to English Language Learning Studio (2018), project work can enhance cooperative learning and learners' autonomy, foster students' motivation, and develop language skills and learning skills such as researching and problem-solving.

Another benefit was found in Keleş's study (2017). The findings from the study revealed that project work presentations could help improve students' speaking skills. When the students did their projects, they had an opportunity to negotiate meaning with their partners. This process allowed them to develop both language forms and vocabulary. The result of this study also showed that presenting their projects made it possible for students to revise and consolidate the vocabulary and grammar forms they prepared for their projects.

This was also found in the study of Lípová (2008) about the benefits of using projects in English language learning. The findings revealed that project work improved students' motivation, co-operation, and communication in the classroom, and allowed students to use their skills and talents, including computer skills, photography skills, video making skills, and drama talent, to study a topic they were interested in.

In addition, Poth (2016) mentioned that when students did their project work, they not only had opportunities to collaborate in groups, but they also developed skills for the future, such as problem solving, critical thinking and time management. The most important thing was that it provided students with opportunities to create authentic projects which were personal and meaningful to them.

Sumarni (2015) also conducted a study about the strengths and weaknesses of project-based learning (PBL) and found that the project method increased students' learning motivation, cooperation, and academic achievement. It also improved students' creativity, problem-solving skills, ability to communicate, research skills and management skills.

Besides, Maskall and Cotterell (2011) used a project-based approach to develop research skills of the first-year undergraduate students in the Environmental Science Program at the University of Plymouth. The students responded positively to the experience of

undertaking the project, designed to address 'real world" problems. They also reported significant gains in their understanding of the research process, confidence to undertake research, the ability to work in groups and the ability to reflect on their projects.

From the advantages of using the project-based approach in English language classrooms aforementioned, it is believed that survey project work could directly benefit the students who study English for Science and Technology courses. The conceptual framework of this research is illustrated in Figure 1 below.

Figure 1

Conceptual Framework of the Research
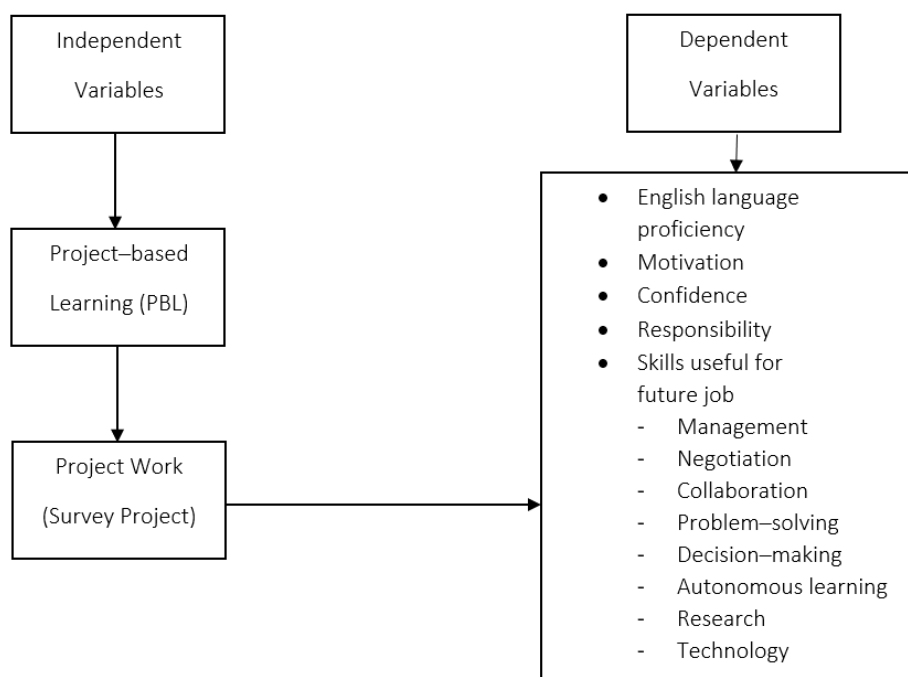
The Disadvantages of Using Project Work in English Language Classrooms

Although project work was considered effective, it sometimes caused difficulties. Poorly motivated students were sometimes reluctant to research new concepts. For students who had no previous experience

with the project method, teachers had to provide examples for the students to base their projects on. Some teachers overly controlled lessons in order to meet set goals, resulting in teacher-centered rather than student-centered classes. Other teachers allowed students too much independence without adequate guidance, advice, or feedback. And teachers who were not skillful with technology were unable to incorporate project work into their classrooms (Khare, n.d.).

Besides, some researchers from previous studies found that when the project method was implemented in large classes, it was difficult for teachers to motivate students, to make them concentrate on their learning tasks, to help them integrate new content with their prior knowledge, and to persuade them to perform cooperative learning activities efficiently (Gülbahar & Tinmaz, 2006; Lee & Tsai, 2004, cited in Sumarni, 2015). Moreover, it was found that for students who had no experience of working in groups, negotiating and compromising were difficult (Grant, 2002). It may be necessary to teach students how to cooperate in groups and to manage conflicts within groups, especially when some students do not participate actively.

In conclusion, while there are considerable benefits of this method, there is also concern about associated problems and difficulties. And if the students have never experienced this kind of method before, it is necessary for the teachers to prepare the students before the project implementation.

Research Methodology

Purposes of the Study

This current research was conducted in order to investigate university students' perspectives towards using survey project work in English for Science and Technology courses. The benefits that the students gained and the difficulties they faced when doing a survey project were also explored.

Research Questions

1. What are the university students' perspectives towards doing a survey project in English for Science and Technology courses?

2. What are the benefits that the university students gain when doing a survey project in English for Science and Technology courses?

3. What are the difficulties the university students face when doing a survey project in English for Science and Technology courses?

The Participants

The participants in this research were 93 undergraduate students from various majors in the Faculty of Science and Technology and other faculties who enrolled in either of two English for Science and Technology courses which were taught by the two researchers at a university in Thailand. As can be seen in Table 1, 77.42% of the participants were female, 19.35% of them were male and 3.23% of them did not answer about their gender. They were 18-24 years old and they had been studying in the Faculty of Science & Technology, the Faculty of Liberal Arts and the Faculty of Sociology and Anthropology (94.62%, 4.30 % and 1.08%, respectively). Their majors were Actuarial Science (27.96%), Computer Science (24.72%), Food Science & Technology (22.58%), Mathematics and Statistics (19.35%), and English Language and Literature (2.15%). The participants who had been studying in the fields of Linguistics, Philosophy and Sociology and Anthropology were the smallest group (1.08%). 63.44% of them were studying in the second year, while the rest of them (36.56%) were studying in the third and fourth year. Regarding the experience of using project work in learning English, 80.65% of them responded that they had used project work in their English courses, whereas 19.35% of them had never used project work for learning English.

Table 1

Demographic Data of the Participants

Items	Number of Participants (N = 93)	Percentage (%)
Gender		
Male	18	19.35
Female	72	77.42
No answer	3	3.23
Age (years)		
18-19	16	17.20
20-21	70	75.26

22-23	6	6.46
24 and over	1	1.08
Faculty		
Science and Technology	88	94.62
Liberal Arts	4	4.30
Sociology and Anthropology	1	1.08
Major of Study		
Actuarial Science	26	27.96
Computer Science	23	24.72
Food Science and Technology	21	22.58
Mathematics and Statistics	18	19.35
English Language and Literature	2	2.15
Linguistics	1	1.08
Philosophy	1	1.08
Sociology and Anthropology	1	1.08
Year of Study		
1st year	0	0.00
2nd year	59	63.44
3rd year	28	30.11
4th year	6	6.45
Experiences in using project work		
Yes	75	80.65
No	18	19.35

The courses they studied involved lectures and group activities utilizing integrated skills. For speaking skills, project work presentation was a part of their speaking assignment. Due to the situation of COVID-19, it was impractical for the students to present their survey project work orally in the classroom. Therefore, the project work presentation was created in the form of video presentation instead.

The Research Instruments

The instruments of this research study were a questionnaire and a reflection asking all of the participants about their perspectives towards using the survey project work in their English courses. After studying the principles of project-based learning and relevant studies about project work, the questionnaire was produced by the researchers and was validated by three experts in the field of English language teaching. The questionnaire's validity was evaluated 0.98. After that, the questionnaire was improved according to the experts' suggestions before launching to the participants. In addition, all of the students were asked to write their

opinions as a reflection about the benefits they gained and the difficulties they encountered while using the project work in their English courses.

The questionnaire contained close-ended and open-ended questions in Thai and was created only in the electronic form of Google Forms. It was divided into three parts as follows:

Part 1: This section was designed to obtain the participants' personal information including gender, age, faculty, major of study, year of study and experience in using project work in their English subjects.

Part 2: This section focused on the students' perceptions towards using the survey project in their English courses. In this part, the participants were asked to rate the level of agreement on the benefits they gained when doing the survey project work.

Part 3: The last part consisted of open-ended questions which asked the participants to provide other opinions or additional suggestions about using survey project work in their English courses.

Regarding the students' reflections, the participants were asked to write in Thai language the benefits and difficulties they faced while doing the survey project work. The questions for reflection were given to the participants in advance.

Data Analysis

Quantitative and qualitative data were collected in this research. After data collection, Part 1 and Part 2 of the questionnaire were analyzed quantitatively by using percentage, mean and standard deviation. For the open-ended questions in Part 3 and the students' reflections about benefits and difficulties, all the opinions were analyzed by using content analysis.

Stages in Doing a Survey Project

The two courses that the students studied in this research involved lectures and group activities utilizing integrated skills. For speaking skills, oral presentation was a part of their speaking assignment. The students in each class were placed into groups of three to four students depending on their preference. Then, they were assigned to conduct mini survey research and discuss survey results in the form of an oral group presentation of their project. Due to the situation of COVID-19, it was not

possible for the students to present their survey project work orally in the classroom. Therefore, the project work presentation was created in the form of pre-recorded video presentation instead, according to the course outline of those two courses.

The project work in this research was a survey project about any topics that the students were interested in. The topics of the survey were approved by the researchers. The objectives of using the survey project were to encourage students to improve their English skills, to be active learners, to create authentic tasks meaningful to the real world, to enhance their research skills and to work cooperatively.

Some examples of the topics in the survey projects were as follows:

- *Attitudes of University Students towards Alternative Proteins: Proteins in Legumes*
- *An Investigation of a Use of Mobile Apps among Science Students*
- *Food Science Students' Attitudes towards Low Sodium Seasoning Powder*
- *University Students' Opinions on Super Foods*
- *Science Students' Opinions on Plant-based Sausage Products*
- *An Investigation of Students' Behaviors on Ice-cream Consumption*
- *Factors Affecting Yoghurt Consumption among University Students*
- *Students' Opinions on the Impact of PM 2.5*
- *Coffee and Tea Drinking Behavior among University Students*

The following are the plans, or guidelines, for doing survey project work, which were given to the participants/students before their presentations.

1. The survey project is to be presented in the form of a pre-recorded video presentation and the date for submission is the last period of the class.

2. The researchers/teachers provide examples of project work and show a video presentation of project work to the students as an idea/ model.

3. Students then do library research for more information about their topics, and then design a survey project and a questionnaire together.

4. Students meet the teachers in groups and propose their design of the project and questionnaire to the teachers.

5. The teachers give comments and feedback to the students.

6. Students in each group produce the first draft of their questionnaire guided by the teachers' comments, and then submit their draft of the questionnaire to the teachers for approval.

7. The questionnaire is revised again according to the teachers' comments and created in an electronic form (Google Forms).

8. After that, the questionnaire is distributed to a sample group, which is about 30-50 participants/respondents.

9. After finishing the data collection, the students work together in groups again to analyze the data and present the results of the survey project in the form of line graph, pie chart or bar graph, using the knowledge they learned from their English courses.

10. Students produce video presentations with visual aids in PowerPoint to display data and present their survey projects in groups. The time for each group presentation is about 15-20 minutes. Every student in each group has to take part in their video presentation. Each individual student has to make his or her respective share of the oral presentation for 4-5 minutes.

11. Students are assessed as groups. Scores are given to the students by the teacher according to criteria based on depth of information, language accuracy, fluency and presentation skill.

After the students finished their survey project presentations, a questionnaire prepared by the researchers was launched to the students in order to find out their opinions on using survey project work in their English courses. Also, they had to write their reflections about the benefits and the difficulties from using this method when learning English for Science and Technology courses.

The survey project work was conducted under the researchers' guidance and monitoring. Ideas about project work, and advice about topics and the process of conducting a survey were given to the students throughout the project.

Results

Quantitative Responses

According to Table 2, it was found that using "Survey Project Work" in learning English helped students to develop their various skills. The

participants indicated that using "Survey Project Work" for oral presentation in the English for Science and Technology courses helped them to improve speaking skill (mean score = 4.44), collaboration skill (mean score = 4.43) and technology and computer skill (mean score = 4.24) at a very high level of agreement. Also, they revealed that presenting their "Survey Project Work" in English class helped them to improve reading skill (mean score = 4.13), writing skill (mean score = 4.11), vocabulary skill (mean score = 4.11), grammar skill (mean score = 3.92), research skill (mean score = 3.91) and listening skill (mean score = 3.70) at a high level of agreement. The overall mean score of the participants' various skills that were developed from using "Survey Project Work" in learning English was 4.11, which was a high level. Additionally, some participants revealed that using "Survey Project Work" in learning English helped them to improve their other skills, for instance, time management, teamwork, creative thinking, problem solving, planning and management.

Table 2

The Participants' Opinions on Using "Survey Project Work" to Improve Their Various Skills

Skills	Mean	S.D.	Level of Agreement	Rank
1. Listening	3.70	0.91	High	9
2. Speaking	4.44	0.73	Very high	1
3. Reading	4.13	0.71	High	4
4. Writing	4.11	0.91	High	5
5. Vocabulary	4.11	0.89	High	5
6. Grammar	3.92	0.94	High	7
7. Research	3.91	0.92	High	8
8. Technology and Computer	4.24	0.88	Very high	3
9. Collaboration	4.43	0.71	Very high	2
10. Others (Please specify.....................................)				

From the results shown in Table 3, the participants indicated at a very high level of agreement that using "Survey Project Work" helped them to learn collaboratively (mean score = 4.41), and to practice useful skills for their future work (mean score = 4.39). Also, the results revealed that the participants have more responsibility and more autonomous

learning skills. They have the opportunity to interact closely with each other in the group and make joint decisions between teachers and group members. Four of the items were rated at the same mean score (4.31), which was a very high level of agreement. The level of agreement for the rest of the items was high. The overall mean score of the participants' agreement was 4.20, which was a high level.

Table 3

The Participants' Opinions on the Benefits of Using "Survey Project Work" in Learning English Courses

Statements	Mean	S.D.	Level of Agreement	Rank
1. I am more motivated to learn English.	3.88	0.92	High	11
2. I have more responsibility.	4.31	0.77	Very high	3
3. I have developed more autonomous learning skills.	4.31	0.77	Very high	3
4. I have the opportunity to develop negotiation skills.	4.01	0.88	High	10
5. I have the opportunity to learn collaboratively.	4.41	0.76	Very high	1
6. I have the opportunity to interact closely with other members in the group. (Interpersonal Relations)	4.31	0.86	Very high	3
7. I have the opportunity to make joint decisions between teachers and group members. (Joint Decision-Making)	4.31	0.83	Very high	3
8. I have more self-confidence in using English.	3.86	0.87	High	12
9. I have a positive attitude towards learning English. (Good Attitude)	4.06	0.8	High	9
10. I have the opportunity to produce projects using realistic information. (Authenticity)	4.26	0.81	High	7
11. I have developed problem solving skills.	4.23	0.77	High	8
12. I have the opportunity to practice useful skills for my future work.	4.39	0.72	Very high	2
Average mean score	4.20		High	

According to open-ended questions in the last part of the questionnaire, some participants revealed that using "Survey Project

Work" in learning English was very helpful in practicing their English skills and they said they were satisfied with studying English with this method because it was a great way for them to increase collaboration skills. They also indicated that they could apply management skills they gained to work in real life. However, some of them suggested that they should have more time to prepare their projects.

Qualitative Responses

In addition to quantitative responses, and responses to open-ended questions, the participants were asked to write their reflections about the benefits and difficulties they found when using "Survey Project Work". Excerpts from the responses follow.

Benefits of Using Survey Project Work in English for Science and Technology Courses

Developing English language skills. The students indicated that it was a good opportunity to practice and develop their various English language skills (listening, speaking, reading, and writing), including presentation skills. Some excerpts follow:

> #1 "It's helpful because it's a good way to improve English skills, practice pronunciation, and learn how to use English language appropriately."

> #2 "It's helpful because I have improved English writing and speaking skills. I have learned new English words and sentences."

> #3 "I gain useful advice from the instructor and I have an opportunity to practice presenting work in English and to improve my English skills."

Strengthening collaboration skills. In addition to improving English language skills, most of the students reported that they also have strengthened their collaboration skills through using "Survey Project Work" in learning English. The following are some excerpts.

> #1 "Using "Survey Project Work" in learning English is useful because I have a chance to develop group work process, to

exchange opinions among group members, and to improve communication skills."

#2 "I have a chance to make new friends from other faculties and learn about teamwork."

#3 "I have practiced working in a group and managing time and I have learned problem-solving skills."

Improving employability skills. Using "Survey Project Work" in these courses allowed the students to practice a work process systematically. The knowledge and experience they gained from this method can be applied to their future employment. Some excerpts follow.

#1 "Using "Survey Project Work" in learning English is useful because it is a guideline for working in the future. I practiced presentation skills, planning work and expressing opinions with others."

#2 "It is very applicable to presentations for work in the future."

#4 "It's useful because I could bring the skills obtained from "Survey Project Work" such as presentation skill, negotiation skill and collaboration skill to use in future work."

Promoting research skills. The participants thought that they could improve their research skills from their survey project work. Some excerpts are shown below.

#1 "I learned how to collect the data from a questionnaire and how to present the research results from this survey project work. This can be applied for my work in the future."

#2 "I have practiced collecting data, processing the data and writing the research results."

#3 "I have learned about research procedures, such as surveying, and collecting and analyzing the data."

To conclude, the findings showed that the students have developed various aspects of their skills, for instance, English language skills, presentation skills, collaboration skills and research skills. In addition,

it was found that they can apply the knowledge they gained to work in the future. However, some of them reported the problems they encountered when using this approach.

Difficulties in Using Survey Project Work for English for Science and Technology Courses

Although the students stated various benefits of using "Survey Project Work" in learning English, there were some difficulties that they faced when conducting their survey project work in these courses.

Having limited time to prepare the project. The main difficulty that most students mentioned as a hindrance of doing survey project work is the limited time to prepare the presentation. Besides, the group members could not manage time to meet in groups since they had other tasks which they were responsible for at the same time. These difficulties are reflected in the following excerpts.

> #1 "Sometimes, the group members have unmatched available time, causing our work not to progress as expected."

> #2 "I got this assignment close to the exam, so I had limited time to prepare."

> #3 "There was limited time to prepare this survey project work, so the presentation was not as good as it should have been."

> #4 "Our working appointment time does not match, so we choose to communicate via Line instead. This causes inaccurate or incomplete communication, resulting in errors in our work."

Having low English language proficiency. Some students had no confidence in their English language competency. They mentioned that they had problems in presenting their work due to low proficiency in speaking and writing English. Some excerpts are shown as follows:

> #1 "I have a problem with my English pronunciation and grammar, so I feel nervous when presenting work."

#2 "I don't know the vocabulary which I would like to use."

#3 "I have problems with speaking and writing correctly."

#4 "My pronunciation and my English accent are not good. So, I am not confident in presenting my work in front of others."

Lacking experience in doing a survey. With regards to research skills, some students reported that lack of research knowledge and experience was one of the difficulties in accomplishing "Survey Project Work". Some excerpts are as follows:

#1 "It is difficult for me to determine the scope of the survey project."

#2 "I have no skills in doing research and selecting the topic in correlating with the objectives of the survey project work."

#3 "I am not sure in analyzing the results of the research data because the respondents give a wide range of responses, so it is difficult to draw conclusions."

Having problems collecting data. Some of the participants complained about collecting data. This can be supported by the following excerpts.

#1 "Some respondents did not cooperate in answering questions and some of them answered questions incorrectly resulting in distortion of the processing data."

#2 "The respondents did not respond to the questionnaires properly, so there is not enough information for the conclusion."

#3 "There are too few respondents. So, I have difficulty in analyzing and concluding the results of research."

Lacking cooperation from some group members. Although the quantitative data revealed that the students had improved their collaboration skills, some of the students' reflections indicated difficulties cooperating with some group members, as seen in the excerpts below.

#1 "I found difficulties in communicating and coordinating with the group members."

#2 "Some members of the group are not enthusiastic about their work."

#3 "There are some small conflicts with a member of the group."

In summary, some of the participants' reflections revealed difficulties they faced when using "Survey Project Work" for their oral presentations. These included limited preparation time, lack of English language proficiency, and lack of research skills. Additionally, some students admitted that working as a group was difficult because some group members did not cooperate.

Discussion

The objective of this study was to investigate students' perspectives towards using survey project work in English for Science and Technology courses. The quantitative data in this study showed that through project work, students developed negotiation skills and improved their language skills, especially speaking skills. This result is supported by the findings of Keleş' study (2017), which showed that the students had a chance to negotiate meaning with their partners when they worked in groups. Also, it showed that project work presentations could help students improve their speaking skills. This is also similar to the ideas of Alan & Stoller (2005), who stated that students learned to pay attention to others' opinions, exchange information and negotiate meaning by means of improving social skills in their engagement with projects.

Apart from English language development, the students revealed that they had more responsibility, and could develop their autonomous learning. This is similar to the results of Essien's study (2018) in that the majority of the participants improved their critical thinking ability, independent study skills, personal and social responsibility, and strong communication skills. In addition, the results in this present study also indicated that the students were more motivated, had more self-confidence, increased their collaboration skills and could apply management skills they gained to other work in real life. This idea was in line with the idea of Legutke et al. (1991), who mentioned that "Project

Work" could prevent boredom and monotony due to its positive impact on students' motivation, autonomy, self-confidence, decision making and cooperative learning. This result was also found in the study of Hasni et al. (2016), who reviewed many articles on project work. The results from seven articles showed that project-based learning improved motivation and interest, attitude, self-efficacy, and self-esteem or self-image. In terms of the students' responsibility, this result was also comparable to the study of Maskall & Cotterell (2015), which mentioned that the students referred to the benefits of collaborative learning, particularly its effect on participation and the support gained through shared responsibility.

Furthermore, regarding qualitative data, the students presented their perspectives towards using project work in English for Science and Technology courses in terms of several advantages. The results showed that project work provided benefits for the students' future employment and they had an opportunity to improve their English language skills as well as other necessary skills like collaboration skills and research skills. These results were confirmed by the findings of some prior researchers (Lípová, 2008; Poth, 2016; Sumarni, 2015) in that project work improved students' motivation and developed additional skills for their future like problem-solving, research and management skills. The project method increased the students' learning motivation, cooperation and academic achievement. Also, according to the study of Maskall & Cotterell (2015), the students gained in their understanding of the research process, confidence to undertake research, ability to work in groups, and ability to reflect on their projects.

However, this present study also investigated the problems the students faced when they conducted survey projects. In terms of their difficulties, the students said that they had limited time to prepare for their survey project work. Also, they found it was hard to do a survey project because they lacked knowledge in conducting research. Some groups had problems with collecting data and with lack of participation by group members. In addition, some of the students mentioned that they were worried about making mistakes during their presentation due to their low proficiency in English. These results were consistent with the result from the study of Waldern (2015), which showed that although there was an increase in the students' organization skills as much as in their oral presentation skills, the students found the lessons and assignments hard. The students also complained that they had too little time for assignments.

However, some results such as lack of confidence in their English proficiency were not found in any previous studies.

Regarding the lack of research skills, this result was also found in the study of Hasni et al. (2016). The researchers reviewed several articles on project-based science research and found that in one article the result showed that students experienced difficulties in data gathering. They claimed that their experimental skills were insufficient and they did not have the habit of doing research, planning a project and documenting the results.

Conclusion

This research study was conducted to investigate university students' perspectives towards using survey project work in English for Science and Technology courses. The benefits and the difficulties the students encountered while doing a survey were studied. The students reported that using survey project work could help them improve their English language skills and other skills, such as collaboration, negotiation, problem-solving and research skills. However, some of the students mentioned problems and difficulties during the process of conducting survey project work in terms of time management and lack of research skills. They also added that they had limited time to prepare this project, resulting in an imperfect project result. Therefore, it is suggested that teachers should give students more time to prepare their survey project work. In addition, teachers should teach the students basic research skills such as how to write survey questions and the processes of data collection and data analysis. It is also important for teachers to follow up their students' work closely and give them advice in case they have problems among group members.

To conclude, the goal of this research was to investigate the students' point of view after learning through a survey project in their English courses. The results from this study can help identify difficulties the students encountered. If instructors understand the obstacles that students face when doing project work, they will be able to find ways to handle the difficulties or to solve the problems before they become more serious. For other researchers and instructors who teach English for Science and Technology courses and are interested in using a survey project as a tool for students' presentations, it is hoped that the

information and knowledge in this paper will provide teachers with some ideas about survey projects and will help them to set up a plan for using project work in their classes appropriately so that the students will be taught perfectly and efficiently.

For future researchers, it is recommended that this method can be adapted for other ESP courses. In addition, data should be collected not only from students, but also from teachers.

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