Fostering Learner Autonomy in an English Classroom by Using Project-Based Learning

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Abstract: *This study aimed at investigating the effects of project-based learning on fostering learner autonomy in an English classroom and to explore learners' opinions toward project-based learning. A mix methods transformative research design was used to elicit data and outcomes. The quantitative phase employed the questionnaire before and after learning through project-based learning in order to examine the enhancement of learner autonomy. In the qualitative phase, VDO records, researcher's reflection, and focus group interview were employed to collect the data. Thirty grade 11 learners in a public secondary school in the eastern part of Thailand were purposefully selected as participants. This study conducted during the club which was an alternative class from the school curriculum that they could select based on their interests. This class called "Junior Guide Club" and project-based learning was used as the approach for teaching. The analysis of data revealed that project-based learning had effects on fostering learner autonomy in English class and learners also had positive opinions through this approach. They can work in team and also have more responsible individual to finish their work on time. Furthermore, learners had a space to show their competence. The results of this study also point to the need for further research on fostering learner autonomy through project-based learning. Finally, in the recommendation also suggested that more projects and more activities with longer period of intervention may lead to different research findings.*

Keywords: Fostering, project-based learning, learner autonomy, learners

Background of the study

English has been increasingly important since its status became a global language; the language of communication throughout the world in many sectors including, but not limited to economics, technology, politics, and education (Crystal, 2003). Apart from its global status, English is regarded as a tool for seeking knowledge. With the increasing importance of English, individuals can use English to access to a repertoire of knowledge in public resources. In other words, the role of English as a tool for seeking knowledge can be regarded as a tool for human resource development.

Thai learners have learned English for many years; however, they are not successful in learning English. Thai learners' English language performance has been quite unsatisfactory (Kanoksilapatham, 2016). When compared to other countries, Thai English proficiency is relatively low. According to Dhanasobhon (2006), pointed to a few factors contributing to the failure of English language teaching and learning: learners of mixed abilities in overly large classes and rare opportunities to use English outside of class time. Additionally, the teachers in Thailand in general have been regarded as traditionally teacher-centered and they were regarded as the authority of knowledge (Wongsothorn, Hiranburana & Chinnawongs, 2002). Therefore, it seemed that Thai learners do not have independence in learning.

For these reasons, learner autonomy is important for English language learning. According to Littlejohn (1985), learner autonomy is based on idea that if students are involved in decision making processes regarding their own language, they are likely to be more enthusiastic about learning and learning can be more focused and purposeful for them. In addition, Benson

(2001) stated that learner autonomy is a precondition for effective language learning; learners succeed in developing autonomy, they not only become better language learners but they also develop into more responsible and critical members of the communities in which they live. Moreover, learner autonomy has played an important role for lifelong language learning, especially in the EFL context where the learners do not have much opportunities to have contact with native speakers and have limited opportunities to use English language. Therefore, promoting learner autonomy in English as a foreign language classroom should be established in order to enhance our learners to have more independence and enthusiasiasm in language learning.

Statement of the problem

Learning English in Thailand is mainly in-class and the learners largely depends on the teachers. Teachers were seen as the authority of knowledge. This is problematic because with the accessibility of knowledge nowadays, learners cannot be passive about their learning otherwise they will not be able to compete with others. However, international corporations also increase while Thai learners have become kind of passive learners. In contrast, learning English really requires active learners who brave enough to communicate with others. Thus, to learn English, learners need to be more independent, especially when they have to use English as a medium to access to that knowledge.

Littlejohn (1985b) discussed the importance of responsibility which helps students be successful in learning English and improving English proficiency. The traditional approach implemented in Thai classrooms have involved teacher working at the center of the classroom and students are merely passive. On the other hand, a trend in teaching English called learner – centered approach encourages the emphasis of having a learner centric approach instead of a teacher centric approach in order to establish a more autonomous learning environment.

Additionally, the intent of project-based learning is to help students become self-directed learners who can apply higher-order thinking skills in their learning process. Moreover, project-based learning is a key strategy for creating independent thinking learners. Children solve real-world problems by designing their own inquiries, planning their learning, organizing their research, and implementing a multitude of learning strategies (Bas, 2011)

From the above, benefits of project-based learning are various. Therefore, project-based learning will be an alternative approach to instruct our learners which can be foster learner autonomy in language learning.

Significance of the study and contribution to knowledge

This study provides empirical evidence of how project-based learning foster learner autonomy in an English classroom. It will reveal the effectiveness of project-based learning approach to enhancing learner autonomy in learning English. Also, the result of this research will be useful for those who are interested in using project-based learning as the best approach in teaching English. Learners gain many benefits from the project-based learning environment such as critical thinking, problem solving, communication, and collaboration. The learners in the secondary level understand how to work in team, solving their problem and also learning English in the same time. In addition, the role of both teachers and learners were changed. Learners need to solve problems by their own and teachers just guide and facilitate them in order to get them through their project. Therefore, teachers should be open-minded and promote project-based

learning as one of an alternative approach in teaching English for our students and opening a new door in the Thai educational system.

Research questions
    1. Does project-based learning foster learner autonomy?
    2. What are the learners' opinion toward project-based learning in an English classroom?

Conceptual framework
        The studied was guided by the ideas of Dewy (1938), who theorized the concept of "learning by doing." It is the learning idea that is most effective when learners put theory into practice and learning should be relevant to practice. Additionally, Benson (2011) subsumed that learner-based approach connects learner training with greater learner autonomy by incorporating learners in decision-making processes concerning their everyday learning content and procedures. Besides, project-based learning is a model that organizes learning around a project. They are complex task, based on challenging questions or problems that involve students in design, problem-solving, decision making, or investigate actvities; give students the opportunity to work relatively autonomously over extended period of time; and culminate realistic product or presentation (Jones, Rassmuseen & Morfitt, 1997). In addition, learners typically have more autonomy over what they learn, maintaining interest, and motivating learners to take more responsibility for their learning (Tassinari,1996; Wolk, 1994; Worthy, 2000)

Scope of the study
        The population in this study consisted of 252 learners in Grade 11 (11th grade) at a public secondary school in the eastern part of Thailand. The participants were 30 learners, purposefully selected, Grade 11 and willing to join in the "Junior Guide Club". This club was an alternative class for learners which they could select based on their interests. The maximum number for this club was thirty. There were fifty minutes for each session. There was no any grade and score for this club only class requirements from the school curriculum. This class was held at the lower secondary school in the eastern part of Thailand.

Research design
        The mixed methods, transformative research design was used to provide informative data and evidence for the research. The quantitative research phase started and was followed by the qualitative research phase. The purpose of employing this research design, which was modified from Creswell Clark (2011), was that quantitative and qualitative approach, in combination, in order to provide a better understanding of research problem than either approach alone.
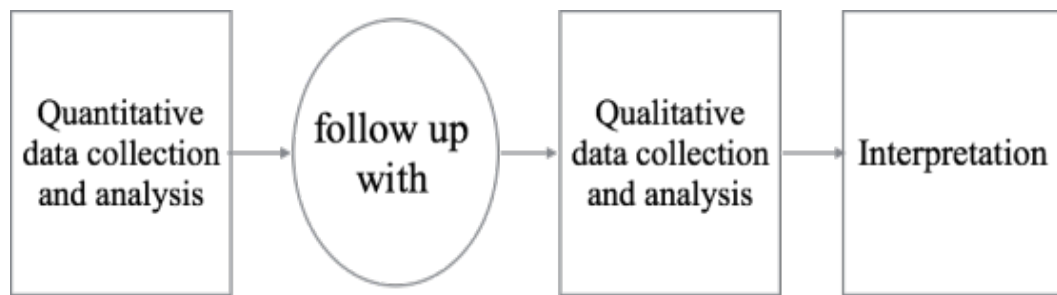
Figure 1 The diagram transformative mixed-method design
Source: Cresswell (2009, p.541)

Participants

      Thirty learners out of two-hundred fifty-two, Grade 11 (11th grade) were selected by using the purposive sampling technique. These learners attended the "Junior Guide Club" which were opened for students at a secondary school during academic year 2017, in the eastern part of Thailand. The purposes of this club were as follows: 1.) Learners will be able to communicate through English for tourism, 2.) Learners will be able to introduce the tourist attractions in their province to tourists, 3.) Learners will be able to create and present the identities of their province. All of them needed to accomplish projects under the themes "Traveling in Trat." They created how to present tourist attraction which they were interested and presented again in class after they completed their project.

Research instruments

      To gather the necessary data both quantitatively and qualitatively, the following instruments were used.

      Questionnaire

      A questionnaire was chosen as the instrument to collect the data because it can yield a large amount of data when time and resources are limited (Dörnyei, 2009). Questionnaire used in this study was used to measure learner autonomy before and after learning in the project-based learning classroom which was adapted from William and Deci (1996). There were 37 items with five Likert-scales (strongly disagree, disagree, neutral, agree and strongly agree) in the questionnaire. This questionnaire was divided into five part which used to measure learner autonomy in five aspects as follows: determining objective, setting their plan, selecting methods, and techniques, reflect on learning, and assessing and evaluate on their own. The questionnaire was translated into the Thai version in order to avoid misunderstanding from the participants.

      Lesson Plan

      The lesson plan was used to conduct the project-based learning class. Six lesson plans were designed and used to conduct class systematically. The lesson plans were divided into six sessions as the teaching steps which was set as the instructional framework.
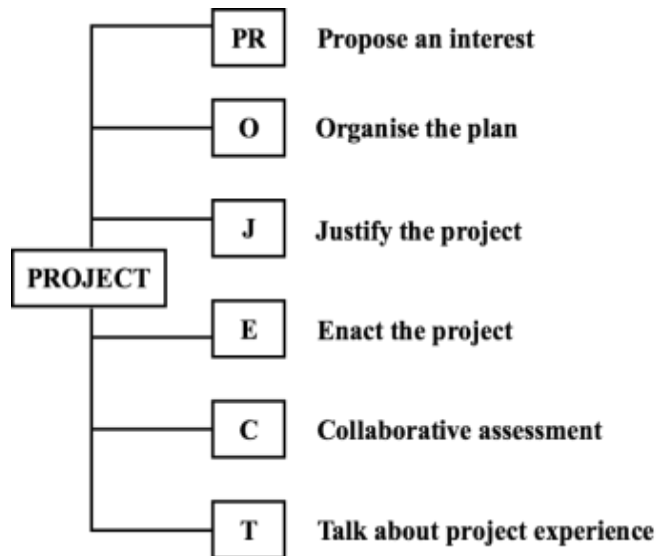
Figure 2 Teaching Steps : Adapted from Stoller (2002)

These are six steps, PR-O-J-E-C-T which adapted from Stoller (2002) in order to make it appropriate with my context and implemented in to classroom for six sessions as the following.

1. ***PRopose an interest***. In this step, the learners brainstormed ideas to do an English project by using guided questions from the teacher to encourage them to think about their problem. The guided questions were: What do they know about tourist attraction in the province? What are they interested? What will they do for the project under the scope of traveling in Trat province?

2. ***Organize the plan***. In this step, the learners planned their project by selecting appropriate activities to carry out their English project. They designed their plan timeline and chose appropriate methods to carry out the English project that they proposed in the first step. In this step, teacher also facilitated in the planning process.

3. ***Justify the project***. In this step, the learners presented their timeline and how to do their project in the class in English language. The teacher and the classmates helped them to scope down and give comments to group presentation in order to handle their work systematically before doing in the project.

4. ***Enact the project***. In this step, the learners executed the English project. They carried out the project as they planned and helped one another in order to accomplish their project. During activity, the teacher facilitated the process and inculcated the love for learning.

5. ***Collaborative assessment***. In this step, the learners assessed their learning performance by using a peer assessment method. All learners and teacher helped one another to assess the outcome and set the criteria to assess outcomes of the project.

6. ***Talk about project experiences***. In this step learners shared their experiences of doing English projects, including strength, weakness, and English language skills. The learners also discussed whether they could achieve the goal of the project.

The activities in all six steps were also encouraged learners to determining the objective,

evaluate on their own. Lesson plans were checked and validated by experts. Then, the lesson plans were implemented in class.

VDO record

VDO recording was chosen for the reasons given by Smith (1981), namely that the use of mechanical recording devices usually gives greater flexibility than observation done by hand (as cited from Bowman, 1994). In every session, VDO record was recording in class activities in order to see the transformation of learners' behavior.

Researcher's reflection

Researcher's reflection was kept by the researcher to reflect on the teaching learning process and the teacher's reflection throughout all teaching sessions. During intervention, researcher reflected all behaviors of the learners in class. The way they acted and did

Focus group interview

Focus group interview was selected to explore questions about opinions and experiences after learning with the project-based approach. Questions were structured and validated by experts. There were five questions for the interview, for example "What was it like in the club?" and "How does the club help you to improve your English? Can you give example?" Most of questions required learners to give the example of evidence in order to elicit the depth data from informants.

Data collection and data analysis

Data collection

Before the intervention, learners completed a questionnaire to measure learner autonomy prior to learning with project-based learning. Then, they learned through project-based learning for seven sessions. Finally, they completed the questionnaire again. The questionnaire before and questionnaire after results were compared to investigate the improvement of learner autonomy. In every session, the VDO record was used during the class in order to see their behavior during activities and researcher's reflection were completed at the end of the day. The researcher also makes audio recording during the focus group interviews and also jotted down some information from informants. The participants were divided into four groups for interview which were interviewed in Thai.

Data analysis

The questionnaire scores before and after learners learned through project-based learning were analyzed to find the Mean, Standard Deviation and t-test by a statistical computer package software in order to find the development of learner autonomy. Then, the VDO record and researcher's reflection were transcribed, translated, and coded in order to support the questionnaire results. The data from the interviews were also categorized and interpreted for answering the learners' opinion after learning toward project-based learning.

Ethical considerations

The researchers treated the data confidentially with the protection of the participants' name of learners, learners' code and English grade. All of the before and after questionnaire passed the ethic boards before implemented in class. The results of questionnaire before and after did not affect in-class scores. The results are secretly kept by the researchers to avoid hurting the participants' feelings. Besides, I asked permission from school to collect data before intervention.

Findings

The development of learner autonomy

To answer the first question, whether project-based learning foster learner autonomy, quantitative and qualitative data were used. In this section, quantitative data obtained from the questionnaire first, followed by qualitative data obtained from researcher's reflection and VDO record. Questionnaire were used to measure learner autonomy of learners before and after they learned with project-based learning. There are 37 items and divided into five aspects: determining objective, setting their plan, selecting methods and techniques, reflecting on learning and assessing, and evaluating by their own in order to measure learner autonomy. There are five Likert-scales questionnaire: 1 means strongly disagree, 2 means disagree, 3 means neutral, 4 means agree and 5 means strongly agree. The result after calculated were shown in the Table as the following;

Table 1 Comparison of Questionnaire Results

Aspects of learner autonomy	Before		After		t	P
	M	*SD*	*M*	*SD*		
1. Determining objective	2.72	0.53	3.35	0.32	5.171	.000
2. Setting their plan	2.83	0.59	3.33	0.39	3.374	.002
3. Selecting methods and techniques	2.81	0.37	3.32	0.36	5.278	.000
4. Reflect on learning	2.63	0.42	3.30	0.40	6.551	.000
5.Assessing and evaluating on their own	2.48	0.40	3.38	0.32	9.954	.000
Overall	2.69	0.36	3.34	0.24	7.343	.000

* $p < .05$

A paired-sample t-test was conducted to compare the mean scores of learner autonomy questionnaire before and after learning with project-based learning approach. Overall, it was found that there was significant difference in the scores for questionnaire before learning with the project-based learning ($M = 2.69$, $SD = 0.36$) and questionnaire after learning with the project-based learning ($M = 3.34$, $SD = 0.24$) conditions; $t (29) = 7.34$, $p = 0.00$. Specifically, aspect 5 (assessing and evaluating) is most increasing. In aspect five, there was a significance difference in scores for questionnaire before ($M = 2.48$, $SD = 0.40$) and questionnaire after ($M = 3.38$, $SD = 0.32$) conditions $t (29) = 9.95$ $p = 0.00$. Therefore, aspect 5 (assessing and evaluating on their own) is the most improved after comparison with questionnaire before and after learning through project-based learning. The second was aspect 4 (reflect on learning), aspect 3 (selecting methods and techniques), aspect 1 (determining objective), and aspect 2 (setting their plan).

With regards to the results of the statistical comparison within each aspect, the questionnaire after results of the participants were statistically significantly higher than their questionnaire before. Nevertheless, to check in detail in every aspect, there was no significant

difference in some statements which indicated that activities in class or lesson plan have an effect on fostering their autonomy for some situations.

Apart from quantitative data, the data from VDO records and interviews will be presented in the following aspects: *determining objectives, setting their plan, selecting methods and techniques, reflect on learning, and assessing and evaluating*. These are five aspects which set in the questionnaire as the indicators for examine their learner autonomy before and after they learn through project-based learning. Besides, all of five aspects were relevant with the steps that the learners learned in the classroom.

Determining objectives

Before learning in the project-based learning class, the data from the questionnaire revealed that the learners possessed the ability to determine objective for learning English language at the average of 2.72, out of the five Likert's scale. After implementing the project, the questionnaire showed an increased score from 2.72 to 3.35, out of the five Likert's scale. During the instruction, there were activities to help learners determine objectives such as propose an interest session and organize the plan session, these activities provide opportunities for learners to practice how to determine their objective in learning.

Setting their plan

In this aspect, before learning with the project-based learning, the data from the questionnaire presented that the learners possessed the ability to set their plan in learning English in the average of 2.83 out of the five Likert's scale. During the instruction, there were activities to help learners setting their plan. For example, at the third week, *Organize the plan*, the learners need to plan how to execute their English project and also create their timeline in order to accomplish their work. Also, in the justify the project session, the learners had an opportunity to present their plan in class and their classmate also gave comment and scope their work. Therefore, it was evident that in these sessions, they learned how to write their timeline and appropriate method or process which they used in their project. They learned how to set their plan and shared their plan to class.

Selecting methods and techniques

Before learners learned with project-based learning in class, the data from questionnaire showed that they possessed the ability to selecting methods and techniques for learning English in this club at the average of 2.81, out of the five Likert's scale. During the class, there were activities to help and encourage learners select appropriate methods and techniques for their work in the session one propose an interest and justify the project session, learners presented their timeline, methods, and techniques to class. Teacher and classmates attempt to give comment at this stage in order to scope their English project.

Reflect on learning

Before learners learned with project–based learning in class. The data from questionnaire revealed that learners possessed the ability to reflect on learning for their English class at the average of 2.63, out of the five Likert's scale. During the instruction, there were activities to help learners improved the ability to help them reflect their learning. For example, last step, talk about experience. Learners were encouraged to share their experiences after they done their work to class, they shared strength and weakness in this stage about what they have learned English through project-based learning approach.

Assessing and evaluating by their own

Before learners learned with project-based learning in class, data from questionnaire revealed that the learners possessed the ability to assessing and evaluating by their own for

learning English at the average of 2.48, out of the five Likert's scale. During the instruction, there were activities to help learners assess and evaluate their learning. For example, in the collaborative assessment session. Learners were encouraged to set the criteria for evaluate their work, and also evaluate their friends work after they finish presented their English project.

In summary, the data from questionnaire in all aspects presented that scored are increased especially, in the aspect 5 (assessing and evaluating by their own). The data from the VDO records and the interviews also revealed consistent results, showing the after learning with the project-based learning, learner autonomy increased in all aspects. Their behaviors, which indicated the degree of learner autonomy, changed after learning with the project-based learning.

Opinion towards project-based learning

This section aims to answer the second research question, "What are learners' opinion toward project-based learning?" which explores the learners' opinion after they learned with project-based learning approach.

Benefits of working collaboratively

The first opinion from the learners after they studied using project-based learning is that they recognized the benefits of working collaboratively with their group members. The benefits included the enjoyment of learning and collaboration with their classmates. This theme is supported by the focus group interviews and researcher's reflections. During the first session of intervention, the learners reported that the teacher allowed learners to choose the group members according to their preferences and they felt comfortable to do their work in groups. For the next session, it was observed that, they shared their knowledge during a class activity, they discussed in their group when they got the assignment. Moreover, learners expressed some feedback about working collaboratively as;

> *"I can learn something more interesting than grammar. Moreover, I didn't work individually. I can work with my friends; we helped each other until we finish task."*
>
> (Interview, March 5)
>
> *"I learn many things from this club such as I can work with my friends because actually I don't like to work with others. I prefer to work individually but after finish this class, I think that working with others it's not that bad"*
>
> (Interview, March 5)

From the interviews, it was evident that the learners prefer to work in groups. Some of them changed their mind to like working in groups after they realized the benefits of working collaboratively. They helped their group until they had finished all their work. They felt more comfortable and confident about learning English.

Project as a space to show competence

Based on the researcher's reflections and focus group interviews, it was noticed that learners can use their particular abilities that they are good at. During sessions learners used various materials for their work. They used computer programs for editing their clips, they used publisher programs for their brochure, they took pictures and added filters for their works and they did the video by themselves. Moreover, the Ban Nam Cheaw group demonstrated how to do "Ngob" for their class in the presentation session. This theme was also supported by the data from focus group interviews.

> *"I liked to help my friends editing the video clip because it is only one   thing where I can show my competence in using computer program for editing. Moreover, I liked to take pictures and put various filters in my work and I'm so proud when my friends give me complement for last sessions."*

(Interview, March 5)

> *"I used a computer program for my work. I try to use photoshop for the first time and also used an application in my mobile phone for editing my work."*

(Interview, March 5)

These are the examples of opinions that learners gave to the teacher after they learned through a project-based learning approach. They have applied other skills and they have opportunities to show other competences in the English class.

Project for reflection and feedback

For the last session after learners finished their presentation, they got comments and feedback from the teacher and their friends. At the beginning, they seemed that they didn't want to hear or give comments to their friends. Then, the teacher clarified the purpose of feedback, they understood and dared to comment on friends' work. Every group got feedback from the teacher and their friends. They had a better realization about the strong or weak points of their work.

> *"I think that it was good to hear the weak points of work without any bias. We never have opportunities to comment on other's work before. Even we learnt for many years. We just do the task and submit to the teacher, we never know the results, we only know the scores furthermore, we never know whether our work is good or bad. But now we know that we have many things to learn and improve."*

(Interview, March 5)

> *"In another class, we just learn and then test, we never know what is strengths and weaknesses but in this class, teacher will give me comment and friends also suggest us how to do in a better way."*

(Interview, March 5)

Learning to be a responsible individual

After learners learned through project-based learning for 1-2 sessions, they asked the teacher to extend the class since they wanted to finish their work on time even learners who didn't usually participate in class activities, they required more time to finish their class as well. They asked permission to do their work in period nine of every day. Every group brought their laptop to do their work.

These are the evidence from researcher's reflections and focus group interviews. Besides, learners submitted their work on time and they came to class on time after they attended "Junior Guide Club" for 2 sessions.

> *"If someone in my group cannot finish his/her duty on time, our plan will change. Our group won't have the project to present in class."*

(Interview, March 5)

"I need to finish my responsibilities on time because I don't want to be a problem of my group."
(Interview, March 5)

Very tight schedule
During class, the teacher gave a deadline for their timeline, some learners complained that they have not much time for their work and they tried to explain to the teacher about their class load and also the homework from other subjects.

"I don't like time limited because we didn't have much time to finish my work. I need to finish everything on time to follow the schedule that we plan in class."
(Interview, March 5)

"I have a lot of home work and at the same time I needed to finish the project as the timeline."
(Interview, March 5)

Therefore, the negative opinions from learning with project-based learning is very tight schedule, since it was in the second semester, the learners needed to attend school-fixed activities such as sports day and field trip. Moreover, they have homework from other subjects so more work from this club have made them have negative opinions about project-based learning.

Discussion and conclusion
On the research findings
To answer the first question, "Does project-based learning foster learner autonomy?" the quantitative results were conducted and also supported with the data from qualitative results. The results showed that the questionnaire after results were significantly higher than questionnaire before in all aspects. The most increased aspect was aspect five assessing and evaluating by their own. Then, reflect on learning, selecting methods and techniques, determining objective and setting their plan respectively.

To answer the second question, "What are learners' opinion toward the project-based learning?" the qualitative results were conducted, the focus group interview with four group of participants from class. All of them were asked five questions about their opinions after they learned through project-based learning. Based on the findings, there were five themes from the interview were found as follows: benefit of working collaboratively, project as a space to show competence, project for reflection and feedback, learning to be a responsible individual, and very tight schedule.

The overall results revealed that the learners had positive and negative opinions towards project-based learning. Surprisingly, with some opinions from learners, the project-based learning made them more interested in learning English not only grammar, they prefer to learn other content that is more purposeful for them.

Similarly, with the research findings of McCarthy (2010) and Ikonen (2013), who reported that project-based learning helped improve learner autonomy. The increased in learner autonomy might have resulted from the fact that the learners were engaged in the process of "learning by doing" (Dewy (1983). Furthermore, Benson (2011) argued that learner autonomy could be improved by using training. In this study, project-based learning could be regarded as a type of training to help learners take responsibility for their own learning. According to Blank

(1997), the learners were exposed to many skills and competencies such as collaboration, project planning, decision making, and time management throughout the project.

    For learners' opinion toward the project-based learning, most of them had a positive attitude to learning, they had improved attitudes toward learning, project-based learning involved learners having greater responsibility for their own learning than traditional classroom activities. The findings were consistent with Boaler (1997). It was evident that the learners' opinions about project-based learning was not directly related to the English language. They did not see that project-based learning helped them improve language skills, but the opinions were about life skills that they acquired after finishing the project. Therefore, these opinions indicated that project-based learning improved affective aspect of language learning.

Limitation of the study

    There are some limitations found after doing the study and limitation is time because of school activities that all learners need to attend. Initially, the lessons were planned for six sessions, but with the school-fixed activities, so the lessons were extended for more sessions.

Recommendations

    For those interested in teaching by using project-based learning, to apply the mini project in class in order to make learners familiar with this learning approach and extended more time to learners to finish their project. However, this study using project-based learning to foster Learner Autonomy but learner autonomy has become new things in Thai education system. Teacher did not realize about the benefits and important of learner autonomy because autonomy was seen in western context than Thailand, therefore with more purposeful in this area teacher should promote the ideas of learner autonomy in your context gradually.

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