

## Learning by Teaching: An Innovative Practice in English Language Teaching

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### Abstract

This study was conducted to support the belief that *while we teach we learn*, and to find out whether the *learning by teaching* practice can produce a positive impact on English language teaching. The context of the study is an English grammar classroom at tertiary level where 31 students majoring in English were assigned to teach their classmates grammatical topics. This activity was called the “*iLearn & Teach*” project. A questionnaire, reflective writing and focus group interviews were used to investigate students’ opinions toward this pedagogical practice. A grammar test on the topics taught was also used to discover the extent to which students were able to answer questions on the topics they were assigned to teach. The results showed that most of the students found this activity stressful, but challenging and beneficial. In addition, the test results indicated that the majority of the students were able to do well on the grammatical topics they had taught. The findings also show evidence of students’ full involvement in their learning process.

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## นวัตกรรมในการสอนภาษาอังกฤษ: การเรียนรู้ผ่านการสอนผู้อื่น

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### บทคัดย่อ

งานวิจัยนี้สนับสนุนความเชื่อที่ว่าในขณะที่เราสอนคนอื่น เราจะเกิดการเรียนรู้ โดยมีวัตถุประสงค์ที่จะศึกษาว่า รูปแบบการเรียนรู้ที่ได้จากการสอนคนอื่น (learning by teaching) จะมีผลดีต่อการเรียนการสอนภาษาอังกฤษหรือไม่ งานวิจัยนี้ทำการทดสอบกับผู้เรียนวิชาเอกภาษาอังกฤษ จำนวน 31 คน ในวิชาไวยากรณ์ และโครงสร้างภาษาอังกฤษ โดยผู้เรียนจับกลุ่มและได้รับมอบหมายหัวข้อไวยากรณ์ ภาษาอังกฤษเพื่อสอนเพื่อนในชั้นเรียน ซึ่งกิจกรรมนี้เรียกว่า “iLearn & Teach” เครื่องมือวิจัยที่ใช้เก็บข้อมูลในสวนความคิดเห็นประกอบด้วย แบบสอบถามความคิดเห็น การเขียนสะท้อนความคิดเห็น และการสัมภาษณ์กลุ่มย่อย และเครื่องมือที่วัดความรู้ทางไวยากรณ์ว่าผู้เรียนจะได้คะแนนที่ดีในหัวข้อที่ได้รับมอบหมายให้สอนมากกว่าหัวข้ออื่นหรือไม่คือแบบทดสอบความรู้ทางไวยากรณ์ ผลการวิจัยพบว่า แม้นิสัยรู้สึกกังวลในการที่จะต้องสอนเพื่อนในชั้นเรียนแต่ก็รู้สึกว่าเป็นกิจกรรมที่ทำหายและเป็นประโยชน์ นอกจากนี้ผลการวิจัยยังแสดงให้เห็นว่าผู้เรียนส่วนใหญ่สามารถทำแบบทดสอบไวยากรณ์ในหัวข้อที่ตนเองสอนได้ดีกว่าหัวข้ออื่น และสะท้อนให้เห็นถึงการมีส่วนร่วมอย่างมากของผู้เรียนในกระบวนการเรียนรู้ของตนเอง

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**คำสำคัญ:** การเรียนรู้ผ่านการสอนผู้อื่น; การเรียนรู้ผ่านการอธิบาย;  
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## 1. Introduction

Lecturing can guarantee teaching but it might not necessarily confirm students' learning. In English language teaching, a number of teaching methods including the grammar translation method, the audio-lingual method, the silent way, and the communicative approach, were developed throughout the last century to ensure students' learning and mastering of the language at a level where they can communicate effectively. Nevertheless, the most popular approach to teaching English grammar in Thailand has long been the grammar translation method, which places a focus on the teacher being an authoritative figure that transfers knowledge to students. In this method, a lecture is given to students and it is expected that students will gain knowledge by listening to their teacher's explanations. However, learning by listening does not truly prove that students have learned what teachers expect them to learn. Therefore, the grammar translation method might not be the most effective method for the teaching of English grammar.

Besides a long established belief in the efficacy of the grammar translation method, some teachers would also defend their belief when they are introduced to classroom activities which promote more active grammar learning. They would argue that this kind of active learning can be used in other English language skills courses, but it is impractical for their grammar classes. They say that to be realistic, teaching grammar is different from the other skills courses. Actually, every type of teaching method is different from another, but there should be one thing in common: that is, any classroom instruction should guarantee students' learning, not the teacher's teaching. It should be what Ackoff and Greenberg (2008) have said, namely, that the objective of education is learning, not teaching.

Learning by teaching was a model developed by Jean-Pol Martin, a professor of French language and literature. The fundamental principles of this teaching practice were to hand over as much teaching responsibility to the learner as possible and, most importantly, to encourage as many students as possible to engage in the highest possible degree of activity. So in this model, students prepare lessons and teach others. (Grzega & Schoner, 2008).

Learning by teaching might not obviously be considered as a pedagogical method, however, it is referred to as an additional beneficial practice that teachers can incorporate into other methods that they use. Duran (2016) exemplifies a number of classroom learning activities which include the principles of learning by teaching, such as *learning by developing educational materials, learning by replacing the teacher in front of the class, learning-by-teaching through cooperative learning techniques and methods, peer tutoring, peer assessment, and using students as co-teachers*. These activities focus on the students as the center in the learning and teaching process.

Based on the learning pyramids introduced by the National Training Laboratories in Bethel, Maine, United States, students can learn and retain 10% of what they learn by listening and reading, 30% by demonstration, 50% by discussion, 75% by doing, and they can retain 90% of what they learn by teaching others. The way in which students are supposed to learn best is to teach others. In society, which Duran (2016) describes as a sustainable and democratic knowledge society, we should all learn from others and to teach others is one of the best methods for learning. *Learning by teaching* might be another pedagogical practice that ELT should adopt to guarantee students' learning and understanding of what they are expected to know and to do.

However, there have been some disagreements about this approach. First, with the *learning by teaching* practice implemented in class, it is possible

that the learning and teaching materials might not be completely covered compared to the situation where the teacher is in control of the classroom. Another drawback is the fact that some students cannot cover all the academic topics because they might not have enough knowledge to fully explain them to their classmates, so their class instruction will not be in-depth, or even structured. This, therefore, will result in classmates not being able to acquire what they need to know about the topics taught. Finally, students' inexperience can lead to class instruction which is badly-presented and can induce a negative environment in the classroom. Also, if student tutors position themselves as authoritative figures transferring and explaining the lessons, there will a possibility of the tutees becoming passive learners.

Student presentations in the *learning by teaching practice* might not be perfect, but this imperfection might evoke discussions and reflections between the teacher, the student tutor, and the tutees. This can improve the learning environment if they are all fully involved in the learning process and the tutees have opportunities to deal more intensively with the learning materials to get a deeper understanding (Grzega, 2005).

As a solution to the problems mentioned above, Duran (2016) mentioned the potential of *teaching by interaction*, which can be initiated between the student tutors and the tutees. This means that the tutors need to increase the tutees' motivation and interaction by formulating questions that encourage the tutees to think in-depth. Thus, the tutor attempts to generate questions, to make the students think deeper about the ideas, relationships, and principles required to produce a correct answer. The interaction between student tutors and tutees can lead to more effective learning, not only the learning acquired by the tutees, but also for the student tutors as well.

Knowledge telling is different from knowledge building (Duran, 2016). This should also be taken into account when teachers make the decision to employ the *learning by teaching* practice in their classrooms. In cases where the student tutors focus on providing knowledge, the classroom atmosphere is not enriching enough for the tutees to learn, or even for the tutors to benefit from their roles as tutors. In this case, it is recommended that learning using cooperative learning techniques should be integrated into the teaching so that the *learning by teaching* practice helps initiate a more friendly and productive learning atmosphere. Overall, if it is actually well-organized, any student tutors' class instruction can be beneficial both for the tutors and their tutees.

In this study, the *learning by teaching* method was implemented in an English grammar classroom at tertiary level. This activity was called the “*ILearn & Teach*” project. The students were divided into small groups of 4-6 members and they had to plan a lesson and teach their classmates an assigned topic. Throughout the semester students were also asked to write their reflections on a weekly basis. They could write about anything, including course contents, assessments, classroom activities, classroom atmosphere, but particularly the *ILearn & Teach* project. Then a survey of students' opinions toward this *learning by teaching* practice was conducted by using a questionnaire and focus group interviews. In addition, students' grammar test results were used to find out whether the students scored well on the course contents that they had taught their classmates. The research questions are:

1. What are students' opinions toward the *learning by teaching* practice?
2. Is the test score of the topics students are assigned to teach better than their scores on other topics?



## 2. Literature review

A number of scholars and teachers are convinced of the great potential of the practice of learning by teaching others and they have conducted various research studies to prove the idea that learning by teaching others is one of the best ways to learn. Tang, Hernandez & Adams (2004) investigated whether a peer-teaching model could induce a positive impact on the learning process of medical students. Carberry (2008) conducted research using learning by teaching as a pedagogical approach with engineering students. Fiorella and Mayer (2013) studied the relative benefits of learning by teaching and teaching expectancy. Several impacts of the learning by teaching practice have been widely investigated and have demonstrated the benefits to students' learning processes for many reasons.

First, the learning by teaching practice encourages students to learn to an extent beyond which they would normally learn the course materials by themselves. They have become experts on certain topics and they approach the learning materials at a higher level of commitment, understanding, and passion (Lin, 2011). In doing so, students have made progress in their learning. Most research, including Annis (1983, as cited in Fiorella and Mayer, 2013) has revealed that the students' expectation to have to teach others helps enhance learning beyond studying for oneself and the act of real teaching enhances even more learning beyond only preparing to teach. Students are also able to develop a deeper and more persistent understanding of the materials, not just to achieve immediate learning outcomes (Fiorella and Mayer, 2013).

Second, with the availability of and easy access to technology, students have brought to class a variety of activities which reflect a 'trendy

style' in their digital lives and they also use attractive and informative materials (Lin, 2011). Their expertise in technology and up-to-date authentic materials helps make lessons more interesting and enjoyable. This quality, therefore, can contribute to a new learning atmosphere among students which some teachers might not be able to create.

Finally, learning by teaching helps encourage each student to be fully involved in building a collaborative learning environment. Each student is encouraged to be a contributor to the learning topics and everyone becomes a part of producing positive effects in the classroom. Lin (2011) points out that the learning by teaching practice is like a part of scaffolding learning, which involves students' responsibilities for building blocks, filling gaps, and coping with any obstacles they come across in their collaborative and active learning environment.

Duran (2016) concluded from his study of a literature review concerning the benefits of learning by teaching that learning to teach others seems to yield better results than learning something for oneself because it involves a different mental process. In this process, student tutors develop their cognitive strategies including revising the material, organizing it for presentation, and identifying the basic structure. This pedagogical practice can be considered an influential and beneficial method employed in the classroom to improve the learning environment and to enhance students' learning.

### 3. Methodology

#### 3.1 Research context

**The course** “*Introduction to English Grammar and Structure*”, which was a course taken by English major students at a university in Thailand, was used to conduct this study, and the objective of this course is for students to review their grammatical knowledge before they study other English structure courses at a higher level.

**The subjects** were 31 students who were assigned to teach their classmates twice throughout the 4-month semester. The activity was called the *iLearn & Teach* project.

**The activities** required them to work in groups of 4-6 members and to do the following:

1. Each group of students was placed in charge of teaching two grammar lessons for the whole semester. The first lesson was considered as a teaching practice and the second lesson was considered as a part of the learning assessment.
2. Each group designed the necessary content for each grammar lesson.
3. Each group chose appropriate teaching and learning activities to teach their assigned grammar topics.
4. Each group also created exercises, worksheets, and classroom activities, etc.
5. Each group taught their classmates in the classroom.

### 3.2 Research instruments

A *survey questionnaire* was used to collect the data concerning students' opinions toward *the iLearn & Teach* project. There were 3 main parts. In Part 1 and part 2, students were asked to state the degree to which they agree or disagree with the given statements concerning the overall features of *the iLearn & Teach* project. Part 1 focused on students' opinions with regard to their role as a student tutor who taught the assigned grammar topics and Part 2 concerned their opinions toward their roles as a tutee. Part 3 included open-ended questions which asked students about their preferences and their overall feelings towards this activity.

*Reflective writing* was an activity in which students were asked to write their opinions about any aspect of the classroom or of the course, including the course content, classroom activities, assigned projects, and learning assessments. They wrote their reflections once every two weeks. They were not asked to reflect on the *iLearn & Teach* project in particular, so they could write about anything that occurred in the two weeks, for example, they could write about their teaching or their classmates' instruction.

*Focus Group interviews* were conducted to obtain more information after students had expressed their opinions in the questionnaire. In these interviews, 10 students were asked to express their opinions in a group. They were grouped based on their answers to the questionnaire. There were three groups: three of them who seemed *to like* this project a lot, four of them who *neither liked nor disliked* the project, and three of them who seemed *not to like* the project. Students were asked about the three main topics: usefulness of this learning-by-teaching method, belief in classmate's instruction, and overall ideas about this method.

A *grammar test* was used to find out how well students could do on the topics they were assigned to teach. It consisted of 50 multiple choice questions. It was not a part of the course assessment; it was only one of the research instruments.

## 4. Results

### 4.1 Students' opinions as a tutor giving class instruction

In the first part of the questionnaire, students were asked to state the extent to which they agreed or disagreed with the 10 given statements concerning their role as a tutor. The results are shown in Table 1

Table 1

*Students' opinions as a tutor*

Statement	Mean	SD
1. The <i>iLearn &amp; teach</i> project promoted cooperative skills.	3.94	.57
2. It was a creative and challenging activity.	3.97	.79
3. It was a difficult and demanding activity.	3.29	.93
4. It helped me to learn better in this course.	3.55	.92
5. I learnt a lot from preparing lessons to teach my classmates.	3.74	.81
6. Before teaching, I was afraid that I would teach lessons incorrectly.	4.26	.77
7. After teaching, I felt that I had taught lessons incorrectly.	2.48	.96
8. I paid attention to explanations of grammatical topics.	3.65	.66
9. I paid attention to exercises I would use in the lessons.	3.68	1.01
10. I paid attention to classroom activities used in the lessons.	3.84	.73

Table 1 shows that students agree with Statement #1 and that this method can promote their cooperative skills (3.94) and Statement #2 that it is considered a creative and challenging activity in (3.97). They also agreed that they learnt a lot from preparing lessons in Statement #5 (3.74). As for their nervousness about teaching, they strongly agreed with Statement #6 stating that they were afraid that they would teach lessons incorrectly (4.26); however, after teaching they did not feel that they had taught lessons incorrectly, so they disagreed with Statement #7 (2.48).

With regard to their instruction preparation, their degree of agreement was higher, because they paid more attention to classroom activities in Statement #10 (3.84) rather than explanations in Statement #8 (3.65) and exercises in Statement #9 (3.68).

In addition, students were also asked to express what they felt when they were the tutors who had to teach their classmates. Table 2 shows some examples of their feelings.

Table 2

*Examples of students' feelings as a tutor giving class instruction*

<b>Positive comments</b>
1. It was a challenging task and a new experience.
2. It was a chance to study more than usual and to work in a team.
3. I transformed my self-studying to summarizing lessons for others.
4. This project made me alert.
<b>Negative comments</b>
5. I was scared and nervous.
6. I was afraid I would teach the lessons incorrectly.
7. I did not have teaching skills.
8. I had to spend too much time when preparing the lessons.

#### 4.2 Students' opinions as a tutee receiving class instruction

In the second part of the questionnaire, students were asked to state the extent to which they agreed or disagreed with the 5 given statements concerning their role as a tutee. The results are shown in Table 3.

Table 3

*Students' opinions as a tutee receiving class instruction*

Statement	Mean	SD
1. I was confident that my classmates taught me correctly.	3.39	.66
2. I understood my classmates' explanations on grammar topics.	3.39	.71
3. I generally liked the exercises they used in their session.	3.68	.83
4. I liked the classroom activities they used in class.	3.90	.74
5. I would rather have the teacher than classmates to teach me.	4.06	.77

Table 3 shows that while students were learning with their classmate tutors, they were not confident that their classmate tutors could teach them correctly (3.39), so they agreed with the idea that they would rather have the teacher than their classmates to teach them (4.06). As for their classroom instruction, they agreed that they liked the classroom activities (3.90) most of all.

Students were also asked to express what they felt when they were the tutees who had to learn from their classmates. Table 4 shows some examples of their feelings.

Table 4

*Examples of students' feelings as a tutee receiving class instruction*

<b>Positive comments</b>
1. I felt good when seeing my friends trying very hard to teach and explain things to make us understand
2. Classroom activities were fun and made me understand the lessons better.
3. I was surprised that my friends were able to understand me.
4. It is good to learn from classmates and it is a new experience for me.
<b>Negative comments</b>
5. I didn't understand my tutor's explanations.
6. Some didn't prepare well so they couldn't teach and the class atmosphere was not good.
7. I don't trust my classmates' teaching.
8. Students have less knowledge about the topic than the teacher so I didn't get enough knowledge of the topic when studying with my classmates.

#### **4.3 Students' reflections on the *iLearn & Teach* project**

Throughout the course, students were asked to write their reflections on any aspect of the course and classroom instruction on a bi-weekly basis. In some reflections, they wrote about the *iLearn & teach* project, but they were not particularly requested to write about it, as it depended on their own choice of what they included in their reflections. The information presented in Table 5 was obtained from their reflective writing.



Table 5

*Student's overall comments on reflective writing*

<b>Statement</b>
1. My classmates did a good job and were great and professional.
2. I really enjoyed all activities.
3. They made me understand more clearly than when I studied by myself.
4. Their PowerPoint slides were interesting but the whole performance was not good.
5. My group had to teach this time. The problem was that there were too many things to remember. As a result, our worksheets contained more pages than those of the other groups. We asked our friends questions and also gave them candies when they gave the right answers. I liked this part of <i>iLearn&amp;Teach</i> most.
6. <i>iLearn &amp; Teach</i> . It is an activity in which students can teach and exchange knowledge.
7. It is a fun and effective activity that can teach us how to make good presentations and how to teach people. In this lesson I have learnt that my friends are really good at English.
8. They can teach me many tenses which I don't know well. I can use their tips to understand how to use each tense.

**4.4 Students' focus group interviews**

In the focus group interviews, students were asked to express their opinions in small groups. There were three main aspects in the interview session: (1) usefulness of the method, (2) belief in classmates' teaching, and (3) overall ideas toward this learning-by-teaching method.

The first part of the interview was about the usefulness of the method. Most students thought it was a useful method because it required them to study harder than normal and they also spent more time on preparing lesson plans. Some pointed out the fact that because their tutors were the same age as they were, it made the class more relaxing. Although some students were doubtful about the usefulness of this method, they stated that they learned more actively when studying with their classmate tutors. As for the negative points, they thought they would understand the lesson only if their classmate tutors had planned very well for their class instruction, but there were many class times when their classmates tutors had not prepared their lessons well. This was the reason for their unwillingness to participate in the classroom interaction.

The second part focused on the extent to which students had confidence in their tutors' class instruction. Some said that they were confident about what their classmate tutors taught them due to their hard work in preparing their lessons. Nevertheless, most students suggested that their tutors should have consulted with the teacher before they gave them class instruction, and some of them said they would prefer the teacher to teach them rather than their classmates.

The final part of the group focussed interviews collected students' overall ideas about the *iLearn & teach* project. Table 6 shows both their positive and negative viewpoints toward the project.

Table 6

*Overall comments on the iLearn & Teach project*

Positive comments	Negative comments
<ol style="list-style-type: none"> <li>1. I like games, activities and exercises.</li> <li>2. I like working in groups and sharing techniques and knowledge, method to memorize the lessons.</li> <li>3. I like the atmosphere when my friends teach me it's fun and relaxing.</li> <li>4. This project helps me to learn more actively and with more self-study hours.</li> <li>5. Games help to boost the class atmosphere because grammar classes are usually boring for students.</li> <li>6. I feel free to ask questions when my friends teach me because we are the same level and other friends help with answering questions while we are in class.</li> </ol>	<ol style="list-style-type: none"> <li>1. I would like the teacher to summarize and give us the scope of the content and the outline of the exam.</li> <li>2. I don't like the time when I am very serious.</li> <li>3. I would feel happier with using Thai in teaching.</li> <li>4. There should be a consultation period with the teacher before teaching.</li> <li>5. There should be an allotted score for this project so that students pay attention to the teaching.</li> <li>6. I don't think we can use this technique with skill-based subjects or for subjects in which the content is difficult or new to us because we have never studied it before.</li> </ol>

#### 4.5 Results from the grammar test score

After the students had learnt all the course contents, they were given a grammar test consisting of 50 multiple choice questions. This test was not a part of the course assessment, just one of the research instruments. The

results show that 15 students (48.39%) obtained the highest score on the topic they had taught their classmates in class, and 9 students (29.03%) obtained the 2<sup>nd</sup> highest score on the topic they had taught. The other 2 students (6.45%) obtained a score in the middle range for the topic they taught. However, there were 5 students (16.13%) who obtained the lowest score on the topic that they taught.

## 5. Discussion and recommendations

This study was conducted to investigate whether the *learning by teaching* practice would produce any positive effects on English Language Teaching in the belief that the grammar translation method generally preferred by most grammar teachers might not always be the most effective way to teach students of this century. The activity used in this study was called the *iLearn & Teach* project. The research context was a grammar classroom of 31 students majoring in English. These students were divided into groups of 4-6 members and they were asked to teach their classmates assigned grammatical topics twice throughout the course. The data was collected through the use of a survey questionnaire, reflective writing and focus group interviews. A grammar test was also used to obtain information about the grammatical knowledge they acquired through their preparation of lesson plans and their classroom instruction.

The results of the *learning by teaching* practice revealed several aspects that prove this pedagogical practice has the potential to be a teaching and learning method that can increase students' motivation in a grammar course, which is typically considered dull by many students. Furthermore, it

can also help contribute to positive learning effects in the classroom for a number of reasons.

First, it was considered a challenging and demanding activity by most of the students. Although many of them initially thought it was difficult and it made them nervous, after finishing it they felt strongly that they did it well on the basis of what they had prepared for their classmates. As a result, it had a positive effect on their attitude to grammar lessons. This kind of feeling was a reflection of what Schwartz and Okita (2013) call recursive feedback. The reaction of the classmates reflects the extent to which the tutors understood their topics. The more the classmates understood, the greater the student tutor's understanding of the topic. The *learning by teaching* practice can therefore be a part of the learning process for students to find out how much progress they have made during the course. Furthermore, it was challenging because even some other groups of students who seemed not to be successful the first time they taught felt challenged to do better the next time they taught. Most of them showed considerable improvement in their next class instruction. The reasons for this might be that they had learnt some good and weak points from their own explanations, exercises, and classroom activities which they provided for their classmates. That was why they started to invest more effort in studying the assigned content so as to improve their class instruction.

Second, the *learning by teaching* practice is a beneficial method because it encourages students to become fully involved in their learning process. They mentioned that they felt free to ask and answer questions when their classmates were tutors. They even pointed out that because they were the same age, they were not shy to ask their classmate tutors questions. It can be clearly seen that the extent of involvement in the students' learning process is of great importance for students to gain and retain some knowledge.

Moreover, if the act of their teaching is meaningful, they are ready to get involved no matter which role they are taking, either as tutors giving class instruction or students receiving class instruction. This classroom atmosphere is very important and it fits in well with what Lin (2011) explains as a situation which is real for them, so they become authentic contributors and experts in a learning environment. Because they want to teach correctly and interestingly, they study the learning materials thoroughly to demonstrate their understanding and their level of knowledge when teaching their classmates. Some of the groups even gave their classmates the exercise worksheets one week before their teaching to make sure their friends had enough time to do their exercises. In addition to the exercises, most of the students were satisfied with their tutors' classroom activities, as they became fully involved in the classroom interaction. As a teacher and researcher, I believe the activities were very interesting and informative for the students. It was a fun time for them to learn grammar.

Thirdly, technology was also another aspect that was used very efficiently in the students' class instruction. Each group had its own style and preferences to incorporate activities and exercises using technology, some of which their usual teachers might not have been capable of doing. In addition to the use of technology, teaching materials like songs, video clips and news articles about celebrities or movie stars that they used, the content was very topical, which the students' usual teachers might not be familiar with. These 'trendy' aspects increase the involvement of students and they learn a great deal. More importantly, it offers them a meaningful learning experience as they can see that the grammatical points in their lessons are related to daily life and not just something in their course book exercises.

Finally, this method reinforces students' responsibility for their learning both by taking the roles of tutors and students. This sense of responsibility is

one of the main principles of learning by teaching, which is believed to encourage students to engage to the highest degree in the course contents, classroom activities, and even in their learning assessment. This is in accord with what Fiorella and Mayer (2013) discovered, namely, that students not only acquired a deeper understanding of the topics after they actually taught their classmates, but they also retained their knowledge longer after they had prepared the lessons.

Despite the variety of benefits found in this study, there were also some negative impacts which need to be considered. To start with, in some of the class instruction given by the student tutors, some tutees were not satisfied with a number of things, including the explanations and exercises provided by their tutors. They said that the explanations were not clear and the exercises were not beneficial. Furthermore, they were even afraid that their classmate tutors would teach them some grammatical points wrongly. Lastly, there remains the fact that there were a few students (6%) in this study who obtained the lowest score on the topic they taught. This might be the result of the procedures used by the teacher, which might not have provided clear descriptions of the project or even practical guidance for students to follow. Perhaps for this reason that one particular group of students did not appear to gain any insight into the topics they were assigned to teach.

To solve the problem of a lack of faith in their classmates' instruction, it is recommended that students should have a consultation with the teacher before the class instruction. In this way, the teacher will be able to check the general understanding of the student tutors, so that they will know if they need to prepare more for their class instruction. In addition to the consultation session, the teacher should not only take a role in class as an observer, but

also as a tutor assistant to help the student tutors clarify points which the tutors might not have explained very clearly or by giving more examples.

From the results of the study, the *learning by teaching* practice can be implemented in English Language Teaching to encourage students' responsibility and authority in their learning, especially in a grammar course or any English course with a content-based focus. In addition, if the students fully understand the concept of the method and the teacher has well-planned class management, students will greatly benefit from studying English using this method. For further research, it would be interesting to investigate whether this *learning by teaching* practice could be used in other English skill courses such as listening and reading, which are receptive skills, or speaking and writing, which are productive skills, as they are quite different from a grammar course which is much more content-based.

The limitations in this study were there were only a small number of students (31), which might not be sufficient to fully represent the results in terms of quantitative results. It would be better for further studies to try an experimental study with a larger class size.

## 6. Conclusion

There has been a diversity of pedagogical practices which help teachers teach and assist students to learn. However, the *learning by teaching* method, which incorporates an innovative learning practice can be implemented into English Language Teaching if teachers have faith in what Vygotsky states, namely, that *the one who does the talking, does the learning*. Despite the large number of teaching methods which have been created,



developed and employed throughout the last century, it would be more challenging for the teachers of this century to adapt their teaching practice and manage their English language classrooms to correspond more closely to the needs of the students of the 21<sup>st</sup> century.

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