A Case Study of English Language Learning Strategies used by Engineering Students in Malaysia

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Abstract

The aim of this paper is to investigate the language learning strategies employed by 22 technical university undergraduates in Malaysia, particularly in oral presentation skills. The study employed focus group interviews and the data gathered were recorded, transcribed and analysed thematically based on O'Malley and Chamot's (1990) taxonomy. The findings showed that the participants used more metacognitive and cognitive strategies compared to the social and affective strategies. The study highlights that students' preferred language learning strategies may not always be effective. Hence, educators have to identify effective language learning strategies for their students and scaffold students' learning into using appropriate strategies.

Keywords: language learning strategies, engineering students, oral presentation, metacognitive learning strategies

Introduction

Language learning strategies are believed to have a significant role in learners' language learning (Sun, Steinkrauss, Van Der Steen, Cox & De Bot, 2016; Cohen, 2011; Oxford, 2015). As such, it is significant for language educators to scaffold learners in using effective language learning strategies to address their language learning needs (Das Santos, 2017). On the part of the students, they should also learn to develop the language leaning strategies that can effectively help them in their language learning. In other words, using appropriate language learning strategies could lead to effective and meaningful language learning.

In today's globalised world, oral presentation skills have become important. In the context of English as a second (or foreign) language, having a good command of English is one of the important requirements that could lead to effective oral presentations (Yuen, Yassin & Abdulrahman, 2014). Despite the fact that oral presentation is highly required, particularly in the workplace, studies have shown that Malaysian university students were not able to perform well in oral presentations (Whai & Mei, 2015; Radzuan & Kaur, 2011). It was found that the main factor that hindered these students from performing well was their lack of proficiency in English whereby they produced linguistic errors that affected the intended meaning (Muhamad et al., 2014). In addition, their inability to perform well in oral presentations may also be influenced by the language learning strategies that they employ (Nakatani, 2010). This raises the need to further investigate the effectiveness of the language learning strategies that university students used in preparing for oral presentations.
This paper investigated the language learning strategies employed by university students, particularly in terms of oral presentation, at one technical university in Malaysia. The paper discussed the type of language learning strategies used according to O’Malley & Chamot’s (1990) framework. The results shed light into the language learning strategies preferred by university students and ways in which these preferred language learning strategies helped them in developing their oral presentation skills.

**Literature Review**

**Conceptual Understanding of Language Learning Strategies**

Language learning strategies refers to behaviours or techniques that learners use to enhance and facilitate language learning (Khosravi, 2012). They are methods deliberately employed by learners in order to learn and acquire a target language, focusing on both accuracy and fluency (Shen, 2013; Wang, 2014; Srivastava, 2014; Yingjie, 2013). According to Rubin (1975), strategy refers to techniques or well-planned activities specifically used by learners to gain knowledge. Chamot (1987) posits that language learning strategy is an approach used by learners to make learning easier by taking into consideration the content information and the linguistic aspects. Oxford (1990) further explains that language learning strategies help individual learners in terms of their comprehension, retention, retrieval and application of information for language learning. These elaborations of language learning strategies provide a conceptual understanding of language learning strategies.

Language learners are diverged in their characteristics. Some can be regarded as good language learners and vice versa. Studies in language learning strategies have shown that good language learners often have strategies in hand and use these strategies in their learning process more often than weak learners (Wang, 2014; Mahalingam, 2016; Mahalingam & Melor, 2016; Munzaki, 2018). They are generally autonomous learners and are more likely to be more successful than those who depend on the teachers (Hedge, 2000). Apart from that, studies have also reported that good language learners apply different strategies in language learning compared to weak language learners (O’Malley & Chamot, 1990). Rubin (1975) argues that some learners can be more successful than others at learning a second or foreign language although they go through same teaching methods. She developed a taxonomy that represented the language learning strategies commonly used by these successful learners (see Table 1).

The strategies used by successful language learners are divided into two primary groups which included strategies that directly affect learning and strategies that contribute indirectly to learning. Consequently, the strategies in direct learning are further classified into cognitive and metacognitive while strategies in indirect learning are classified into communication and social strategies (Rubin, 1975).

Naiman et al. (1978) classified the language learning strategies used by successful learners into two which included primary and secondary. The primary strategies refer to strategies that are commonly used by all good learners while secondary strategies refer to strategies used by some good learners. These strategies included active task approach (responds positively to learning opportunity or seeks and exploits learning environments, adds related language learning activities to regular classroom program and practices), realisation of language as a system, realisation of language as a means of communication and interaction, management of affective demands (finds social meaning and copes with affective demands in learning) and monitoring L2 performance. According to this classification, both primary and secondary can contribute directly to learning.
Table 1: Taxonomy of Language Learning Strategies

<table>
<thead>
<tr>
<th>Strategies that directly affect learning (Cognitive and Metacognitive Strategies)</th>
<th>Processes that contribute indirectly to learning (Communication and Social Strategies)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clarification/verification:</strong></td>
<td><strong>Creates opportunities for practice:</strong></td>
</tr>
<tr>
<td>• asks for an example of how to use a word or expression,</td>
<td>• Creates situation with native speaker</td>
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<td>• repeats words to confirm understanding</td>
<td>• Initiates conversation with fellow students</td>
</tr>
<tr>
<td><strong>Monitoring:</strong></td>
<td>• Spends time in language lab, listening to TV, etc.</td>
</tr>
<tr>
<td>• Corrects own/other's errors in pronunciation, vocabulary, spelling, grammar, style.</td>
<td><strong>Production tricks:</strong></td>
</tr>
<tr>
<td><strong>Memorization:</strong></td>
<td>• Uses circumlocutions, synonyms, or cognates</td>
</tr>
<tr>
<td>• Takes notes of new items, pronounces out loud, finds a mnemonic, writes items repeatedly.</td>
<td>• Uses formulaic interaction</td>
</tr>
<tr>
<td><strong>Guessing/inductive inferencing:</strong></td>
<td>• Contextualizes to clarify meaning</td>
</tr>
<tr>
<td>• Guesses meaning from key words, structures, pictures, context, etc.</td>
<td></td>
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<tr>
<td><strong>Deductive reasoning:</strong></td>
<td></td>
</tr>
<tr>
<td>• Compares native/other language to target language</td>
<td></td>
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<tr>
<td>• Groups words</td>
<td></td>
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<tr>
<td>• Looks for rule of co-occurrence</td>
<td></td>
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<tr>
<td><strong>Practice:</strong></td>
<td></td>
</tr>
<tr>
<td>• Experiments with new sounds</td>
<td></td>
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<tr>
<td>• Repeats sentences until pronounced easily</td>
<td></td>
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<tr>
<td>• Listens carefully and tries to imitate</td>
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</tr>
</tbody>
</table>

Source: Rubin (1975; 1987)

While Rubin's (1975) taxonomy and Naiman et al.'s (1978) framework represented the language strategies of successful learners, O'Malley and Chamot (1990) developed a taxonomy that described the language learning strategies used by second (foreign) language learners. These strategies are classified into three main classifications which are, metacognitive, cognitive and social and affective strategies. Metacognitive strategies require students to think about the learning process, planning for learning, monitoring the learning task, and evaluating how well they have learned. For cognitive strategies students interact with the materials that they need to learn, use the material, and apply specific technique to perform a task. Social and affective strategies involve interacting with another person or using affective control to assist learning. The Metacognitive and Cognitive strategies reflect individual learning while social and affective strategies seem to represent group learning and promote team working. The types of strategies that could be classified according to the three classifications are shown in Table 2 below.

Table 2: O'Malley and Chamot's (1990) Taxonomy of the Language Learning Strategies

<table>
<thead>
<tr>
<th>Metacognitive Strategies</th>
<th>Cognitive Strategies</th>
<th>Social and Affective Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Planning</td>
<td>• Repetition</td>
<td>• Questioning for clarification</td>
</tr>
<tr>
<td>• Directed attention</td>
<td>• Resourcing</td>
<td>• Cooperation</td>
</tr>
<tr>
<td>• Selective attention</td>
<td>• Grouping</td>
<td>• Self-talk</td>
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<tr>
<td>• Self-management</td>
<td>• Note taking</td>
<td>• Self-reinforcement</td>
</tr>
<tr>
<td>• Self-monitoring</td>
<td>• Deduction/Induction</td>
<td></td>
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<tr>
<td>• Problem identification</td>
<td>• Substitution</td>
<td></td>
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<tr>
<td>• Self-evaluation</td>
<td>• Elaboration</td>
<td></td>
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<td></td>
<td>• Summarising</td>
<td></td>
</tr>
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<td></td>
<td>• Translation</td>
<td></td>
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<tr>
<td></td>
<td>• Transfer</td>
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</tbody>
</table>
According to O’Malley and Chamot (1990), second and foreign language learners tend to use cognitive and meta-cognitive strategies more compared to social and affective strategies. This can be seen in Table 2 where there are more descriptors for cognitive and meta-cognitive strategies than the social and affective strategies.

**Challenges in Conducting Oral Presentations**

One of the challenges in conducting oral presentation is the students’ lack of vocabulary and limited knowledge to construct English sentences and pronounce English words (Norafni & Sarjit, 2016; Samira, 2014). This may lead to distortion of ideas and the intended messages may not be conveyed accurately. A study conducted by Samira (2014) investigated the main speaking difficulties in oral presentations faced by grade five English as a foreign language (EFL) student in Oman. The study found that the students tried to communicate in English but did not have the vocabulary to do so.

Another challenge in conducting oral presentations is having sufficient opportunities to use spoken English in various contexts to allow students to be familiar with the language and boost their confidence. Gan (2012) investigated the performance of twenty final year Bachelor of Education (English major) students in a Hong Kong tertiary teacher preparatory school in their oral presentations. The findings generated from the semi-structured interview data showed that the participants were not given sufficient chances to speak using the language in the classroom as they have large number of students in a class. As such, the students were not able to perform well in their presentations. In addition, it was also found that the teaching and learning within second or foreign language context focuses more on vocabulary and grammar drills rather than on communicative English due to the pressure to perform well in examinations, particularly in Asian countries (Rashid, Rahman & Yunus, 2017; Brooks & Wilson, 2014; Yan, 2014).

Studies have shown that students also use language strategies when preparing for oral presentation (Panggabean & Kesuma, 2017; Tian & Mahmud, 2018). In their study, Panggabean and Kesuma (2017), reported that the participants, who were non-native speakers but highly proficient, used cognitive, metacognitive, affective and social strategies equally. In another study, Tian and Mahmud (2018) conducted a study that compared the language learning strategies used by English major and non-English major students. Two sets of questionnaires were administered, and an interview was performed on sixty one participants. The study found that despite their majors, participants experienced language anxiety which affected their choice of language learning strategies. The study also highlighted that learners with language anxiety often employed language learning strategies that had been identified as ineffective in the literature. This raises concerns that learners’ language learning strategies may not always be effective for their language learning. As such, there is a need to conduct further investigation to address these concerns.

**Methodology**

This study examined the language learning strategies of Malaysian university students who were generally second language learners of English. O’Malley and Chamot's (1990) taxonomy was used as the basis of the analysis of the data collected. This study examined the language learning strategies used by Malaysian university students when preparing for group oral presentation.

In order to obtain a deeper understanding of the issue, a total of 22 students from one technical university in Malaysia were recruited. These respondents were divided into 6 small groups and focus groups were conducted. These respondents were asked to reflect on the assignment related to journal article review. For this assignment, the respondents were required to review two journal articles and perform a group oral presentation to present their review. The purpose of conducting the focus group was to obtain insights into students’ preferred language learning strategies, particularly in relation to their preparations for group oral presentations, the challenges that they encountered when preparing for these presentations and ways in which they resolved these challenges. The interviews were audio...
recorded and transcribed. The data were analysed using thematic analysis based on O’Malley and Chamot’s (1990) taxonomy.

**Result**

According to O’Malley and Chamot (1990), most second and foreign language learners demonstrate the use metacognitive (selective attention, organisational planning, and self-management) and cognitive strategies (repetition, translation and transfer), whereas more advanced students relied most on inferencing. There was limited usage of the social and affective strategies among the second and foreign language learners.

Table 2 above illustrates the language learning strategies used by the respondents in preparing for oral presentation. It was found that the respondents demonstrated the use of metacognitive and cognitive strategies more than social and affective strategies. The metacognitive strategies are planning and self-evaluation and the cognitive strategies are resourcing, repetition and note taking. There are very few instances that illustrate the use of social and affective strategies.

Despite the fact that the task was a group work, the preparation for the presentation seemed to be done individually.

> We divide the task and from there we work individually. [G4R14-1]
> (Metacognitive - Planning)

> What we did was, we split our work, each of us did a part...[G5R19-1]
> (Metacognitive - Planning)

Although at the beginning there was some discussions, these discussions were merely about delegation of work. The following excerpts illustrate the examples of respondents working individually:

> I read both articles over and over and try to understand my part, with the hope to be able to improve and speak better, and present better. [G6R21-1]
> (Metacognitive - Self-management)

> When I read the journal, I spent some time reading the article...so when I understand the paper, I can explain using simple language that is hopefully understood by others (audience). [G6R23-1]
> (Metacognitive - Self-management)

> I read the full report and I learn about presentation skills through Youtube. [G6R24-2]
> (Cognitive - Resourcing)

The above instances showed that each respondent did preparation on his/her own, focusing on the part given to him/her. The work required to complete the task was divided equally and each group member was expected to understand and complete the task on his/her own. In this case, each group member went through the learning process on his/her own after the delegation of work. This could be students’ understanding of team working. This raises concerns about students’ ability to work in a team and whether team working skills are being scaffolded throughout their study. Similar pattern could be seen when preparing for the delivery of the presentation.

> I listed out the points that I am going to present on a piece of paper, I face the mirror and practice on speaking, my pronunciation and the fluency of my presentation. [G4R14-2]
> (Cognitive - Repetition)
In this instance, the respondent used cognitive strategies of note taking and repetition. In addition, the respondent seemed to perform this task individually.

We divide the task and from there we work individually. [G4R14-1]  
(Metacognitive - Planning)

Despite the nature of the task, individual or group work, the majority of the respondents preferred to use metacognitive and cognitive strategies. It can be concluded that the metacognitive and cognitive strategies represent strategies used by a learner when working individually. This suggests that second language learners prefer to go through individual learning process. There are, however, a few instances where social and affective strategies are being used.

First, we’ve made selection of articles, we research and make comparison, then we divided the tasks, we have 5 group members so we divide the tasks equally among each other. [G3R12-1]  
(Metacognitive - Planning)

In this excerpt, it could be seen that the group discussion centred around selecting relevant articles for the task, before the delegation of work could be done. This suggests that social interaction may occur when they make decisions on the materials that they would use for the task. After the decisions were made, they divided and delegated the task. Upon receiving the part that they were assigned to, the respondents worked individually.

We met, discuss and compile our work. We make sure everyone understand their part and if they don’t, we discuss among each other and help our friends to understand. [G4R15-2]

Based on the above excerpt, it could be seen that the social and affective strategies of questioning for clarification and cooperation were used throughout the process unlike in excerpt G3R12-1, where the social and affective strategies were used prior to the delegation of work. The occurrence of the above situation (G4R15-2), however, was uncommon.

The two instances above (G3R12-1 and G4R15-2) suggest that second language learners may use varieties of language learning strategies in order to complete a task. In other words, language learners may need to use strategies from metacognitive, cognitive and social and affective strategies to achieve a goal. This finding support Paris, Lipson and Wixson's proposal that learners would be actively engaged in selecting, monitoring and evaluating strategies that they need to use to achieve an aim or to solve a problem. The next section discusses this further.

Conclusion

This study is part of a larger investigation on the language learning strategies used by Malaysian university students. This paper reported results on the language learning strategies used by students from one technical university in Malaysia. The data were collected from one technical university students and focus group interviews were performed. The results showed that the participants used metacognitive and cognitive strategies more than the social and affective strategies. According to Oxford (1990), each classification of language learning strategies supports each other in language learning. In addition, students’ preferred language learning strategies may not always be effective. As such, learners of English as a second (foreign) language need to employ the language learning strategies that could help them in their learning. On the part of the English language educators, they need to identify effective language learning strategies for their students and scaffold students’ learning into using these strategies.
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