

Vocational Students' Use of Vocabulary Learning Strategies

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Abstract

The present study aimed to investigate vocabulary learning strategies (VLSs) employed by vocational students. The participants of this study were 242 first-year high vocational certificate students studying in three fields: engineering, accounting, and hotel and tourism from five government vocational colleges in Krabi Province, Thailand. A questionnaire and an individual semi-structure interview were used to elicit the frequency of VLSs use. The results of this study revealed that among five strategic categories (determination, social, memory, cognitive and meta-cognitive), social strategies were ranked as the most frequently used. The participants employed strategies from all five categories at the frequency level of "sometimes". In addition, VLSs use varied based on a participant's fields of study (Sig. at $P < 0.05$, $P < 0.01$).

Keywords: vocabulary learning strategies, vocational students, AEC, fields of study

การใช้กลยุทธ์การเรียนรู้คำศัพท์ของนักศึกษาอาชีวศึกษา

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Abstract

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาการใช้กลยุทธ์การเรียนรู้คำศัพท์ของนักศึกษาอาชีวศึกษา กลุ่มตัวอย่างคือนักศึกษาประกาศนียบัตรวิชาชีพชั้นสูง ชั้นปีที่ 1 จำนวน 242 คน ใน 3 สาขาวิชาคือ สาขาวิชาวิศวกรรมศาสตร์ สาขาวิชาบัญชี และสาขาวิชาการโรงแรมและการท่องเที่ยวในวิทยาลัยอาชีวศึกษา 5 แห่งในจังหวัดกระบี่ เครื่องมือที่ใช้ในการเก็บข้อมูลคือแบบสอบถามการใช้กลยุทธ์การเรียนรู้คำศัพท์ และแบบสัมภาษณ์กึ่งโครงสร้าง ผลการวิจัยพบว่า จากกลยุทธ์การเรียนรู้คำศัพท์ทั้งห้ารูปแบบ (กลวิธีการหาความหมายด้วยตัวเอง, กลวิธีทางสังคม, กลวิธีการจำ, กลวิธีเชิงพุทธิปัญญาและกลวิธีหุปัญญา) นักศึกษาใช้กลวิธีทางสังคมมากที่สุด กลุ่มตัวอย่างใช้กลยุทธ์การเรียนรู้คำศัพท์หลักทั้งห้าประเภทในระดับความถี่บ้างครั้ง นอกจากนี้การใช้กลยุทธ์การเรียนรู้คำศัพท์ของนักศึกษาสามสาขาวิชามีความแตกต่างกันอย่างมีนัยสำคัญ ($P < 0.05$, $P < 0.01$).

คำสำคัญ: กลยุทธ์การเรียนรู้คำศัพท์, นักเรียนอาชีวศึกษา, ประชาคมเศรษฐกิจอาเซียน, สาขาวิชา

Introduction

Vocabulary learning has long been highlighted as critical in learning languages (Atasheneh & Naeimi 2015; Behbahani, 2016; Chon, Shin & Lee, 2012; Nation, 2001; Thornbury, 2002). Wilkins (1972) stated that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (p. 111). In addition, insufficient vocabulary knowledge will negatively impact the development of students' skills in reading, writing, listening and speaking (Alhaysony, 2012; Hu & Nation, 2000; Liu, 2011). Therefore, in order to improve vocabulary acquisition, students need to apply effective vocabulary learning strategies (Nation, 2001; Nirattisai & Chiramanee, 2014; Teng, 2015; Walum & Charumanee, 2014).

Vocabulary learning strategies (VLSs) are defined as a set of actions, behaviors or techniques that learners use to help them find out the meaning of new or unknown words, to retain those words, and to use them in oral or written communication (Cameron, 2001; Intaraprasert, 2004; O'Malley & Chamot, 1990; Schmitt, 1997; Takač, 2008). The VLSs have been classified by different scholars (Gu & Johnson 1996; Nation, 2001; Oxford, 1990; Schmitt, 1997). Schmitt's taxonomy (1997) is one of the VLSs classifications that is widely-known and widely accepted among researchers (Nirattisai & Chiramanee, 2014). For this reason, this current study was based on Schmitt's classification (1997) in developing the instruments.

Schmitt (1997) proposed five sub-categories of VLSs: determination strategies, social strategies, memory strategies, cognitive strategies and meta-cognitive strategies. The first, determination strategies, consists of the strategies that learners have to determine the meaning of the words without interaction with others; whereas, social strategies are ways that learners use to find the word meaning by interacting with others. Memory strategies refer to the strategies in which students associate new words with previous knowledge. Cognitive strategies are similar to memory strategies; they include repetition and using mechanical means. Lastly, metacognitive strategies involve the strategies that learners use to control and evaluate their own learning.

Schmitt (1997) points out that many learners use strategies to facilitate acquiring vocabulary. According to Gu (2010), VLSs can be used by foreign

language learners as a tool for deciding not only how to learn, but also what to study. Nation (2001) asserts that by using VLSs, learners can acquire a large and rich vocabulary. Gu and Johnson (1996) concluded that learners equipped with a range of VLSs can deal with new or unknown words much more efficiently than those with insufficient VLSs knowledge.

As discussed above, VLSs play a critical role in language learning by helping learners expand their vocabulary. Due to the importance of the VLSs, many studies on VLSs use have been conducted. Those studies have focused on students' use of VLSs at the high school level (Walum & Charumanee, 2014), the vocational level (Teng, 2015) and the university level (Asgari & Mustapha, 2011; Boonkongsaen & Intaraprasert, 2014; Kalajahi & Pourshahian, 2012; Komol & Sripetpun, 2011; Nirattisai & Chiramanee, 2014; Saengpakdeejit, 2014; Siriwan, 2007; Suppasetserree & Saitakham, 2008; Wanpen, Sonkoontod & Nonkukhetkhong, 2013). The aforementioned studies examined students' VLSs use, and relationship between VLSs use and vocabulary knowledge.

With regard to VLSs use, Boonkongsaen (2012) points out that a factor affecting VLSs use is students' fields of study. Some research revealed a correlation between students' fields of study and their VLSs use (Bernardo & Gonzales, 2009; Boonkongsaen & Intaraprasert, 2014; Tsai & Chang, 2009; Siriwan, 2007). In Thailand, vocational students need to become more proficient in English to cope with the international work opportunities for the AEC labor market (Ngmsa-ard, 2012). However, the English proficiency of vocational students remains weak (Saraithong & Chanchaoenchai, 2012). Yomyao and Khammul's study (2012) revealed that vocational students had low scores in vocabulary.

It is, therefore, worthwhile to explore VLSs use of vocational students, studying in the fields of professions under the AEC agreements. The results of this study would add to the literature on VLSs use by vocational students. Additionally, the results could be beneficial to both vocational students and teachers. An understanding of the VLSs employed by vocational students would not only enable students to be aware of the VLSs they use, it would also provide valuable guidelines for language instructors to teach VLSs that are suitable for students' learning styles.

Research Questions

The purpose of this study was to explore vocational students' use of VLSs and the relationship between their choices and students' fields of study. The research questions were:

1. What kind of VLSs do vocational students employ?
2. Are there any variations of VLSs use among vocational students according to the students' fields of study? If so, what are the main patterns of variation?

RESEARCH METHODOLOGY

Participants

The participants of this study were first-year high vocational certificate students enrolling in five government vocational colleges in Krabi Province in the second semester of the academic year 2015. The participants were studying engineering, accounting, and hotel and tourism. Within the engineering field, 127 students were majoring in Mechanical Tools, Mechanical Technology, Information and Technology, Electrical Power, and Electronics Technology. Forty-one students were majoring in accounting and 74 students in Tourism and Hospitality.

Instruments

There were two main instruments employed in this study.

1. Vocabulary Learning Strategies Questionnaire

A questionnaire with a five-point Likert scale was used as the main instrument. The rating scales were ranked from (5) *always use* to (1) *never or almost never use*. The 39 items were categorized based on Schmitt's taxonomy (1997). They were divided into five main VLSs categories: items 1-8 for determination strategies, items 9-14 for social strategies, items 15-25 for memory strategies, items 26-31 for cognitive and items 32-39 for meta-cognitive strategies. The questionnaire was adapted from that of Nirattisai (2014), Thavonpon (2012) and Walum (2014). Three experts in the field of TEFL reviewed the content validity of the questionnaire. A pilot study was conducted in

January, 2016 with 34 first year high vocational certificate students majoring in computer business at Krabi Technical College to ensure the reliability of the questionnaire. Using Kuder-Richardson formula 20, the reliability of this questionnaire was 0.917 indicating that the items in the questionnaire were highly reliable.

2. Semi-Structured Interview

The individual semi-structured interview was used to elicit detailed information about participants' attitudes towards English and the VLSs employed by the participants. Each of the ten volunteer participants was interviewed for 15-20 minutes. The interview was audio-recorded. The researcher also took notes during the interviews.

Data Collection

The data were collected during January and February, 2016. Two hundred and forty-two first year high vocational certificate students out of the 298 (81.20%) completed the questionnaires. In addition, ten volunteer participants, four in engineering, three in accounting, and three in hotel and tourism were interviewed using Thai in order to avoid the misunderstanding between the researcher and the interviewees.

Data Analysis

Statistical Analysis

Descriptive statistics was used to compute mean scores and standard deviations (S.D.) of the VLSs data. The interpretation of the use of VLSs was applied from Srisa-ard (2002). The mean scores of the VLSs were interpreted as follows:

- 4.21 – 5.00 = Always used strategies,
- 3.41 – 4.20 = Frequently used strategies,
- 2.61 – 3.40 = Sometimes used strategies,
- 1.81 – 2.60 = Seldom used strategies,
- 1.00 – 1.80 = Almost never used strategies.

In addition, ANOVA was employed to analyze statistically significant differences between VLSs used among three groups of students.

RESULTS

This section reports the results of the students' use of VLSs and variations in students' use according to their fields of study.

1. The vocabulary learning strategies use of vocational students

The frequency levels of students' use of VLSs in each category were reported in Table 1.

Table 1: The frequency of students' use of VLSs based on category

VLSs Category	Mean	S.D.	Frequency Level
Social Strategies	3.35	.60	Sometimes used strategies
Determination Strategies	3.24	.58	
Memory Strategies	3.17	.67	
Meta-cognitive Strategies	3.11	.78	
Cognitive Strategies	2.96	.73	
Overall	3.17	.56	Sometimes

Table 1 summarizes the means of the frequency level of students' use of VLSs in each category from the highest mean to the lowest. It was found that the overall frequency level of VLSs used by the vocational students was in the range of "sometimes" (mean = 3.17), indicating that students sometimes used vocabulary learning strategies. Among five categories, *social strategies* category was ranked as the highest used strategy (mean = 3.35), followed by *determination strategies* (mean = 3.24), *memory strategies* (mean = 3.17), *meta-cognitive strategies* (mean = 3.11) and *cognitive strategies* (mean = 2.96) respectively.

Upon further examination, the mean scores of the students' use of 39 strategies at different level of use (frequently used, sometimes used, and seldom used strategies) are presented in Table 2 - 3.

Table 2 below shows the frequently used VLSs by the students.

Table 2: The frequently-used vocabulary learning strategies employed by students

No.	Strategies	Mean	Category	Frequency of use
4.	Analyze any available pictures or gestures	3.55	DET	Frequently used strategies
7.	Use an English-Thai dictionary	3.53	DET	
9.	Ask teachers for an L1 translation	3.50	SOC	
12.	Ask classmates for meaning	3.47	SOC	
11.	Ask a teacher for a sentence including the word	3.45	SOC	
3.	Guess word meaning from textual context	3.45	DET	
8.	Use a Thai-English dictionary	3.43	DET	
10.	Ask teachers to describe a similar meaning or provide a synonym of the word	3.43	SOC	
26.	Learn words through verbal repetition	3.43	COG	

As shown in Table 2, nine strategies that students frequently employed were ranked from the highest to the lowest mean. The strategy *analyze any available pictures or gestures* in the determination category was employed with the highest mean score of 3.55, followed by the strategy *use an English-Thai dictionary* in the determination category (mean = 3.53) and the strategy *ask teachers for an L1 translation* in social category (mean = 3.50). In terms of the categories, four strategies were in the determination category (Items 4, 7, 3 and 8), four strategies were in the social category (Items 9, 12, 11 and 10) and only one strategy (item 26) was in the cognitive category.

In the interviews, participants stated that the learning materials and classroom environment were important for their learning. The students explained that their English textbook contained various colored pictures and signs that aroused their interest in learning English in the classroom. As a result, they applied learning materials that the teacher provided in the classroom both inside and outside the classroom. With regard to using a dictionary, they stated that the teacher allowed them to bring any kind of dictionary into the classroom. They felt comfortable learning English vocabulary.

The VLSs sometimes and seldom used by students are shown in Table 3.

Table 3: Sometimes and seldom used vocabulary learning strategies

No.	Strategies	Mean	Category	Frequency of use
32.	Listen to and watch English media for example movies, songs, etc.	3.35	MET	Sometimes Used Strategies
13.	Discover new meanings through group work activity	3.33	SOC	
35.	Translate the word from English to Thai	3.29	MET	
15.	Study words with pictures	3.28	MEM	
22.	Associate the word with other words you have learned	3.27	MEM	
27.	Learn words through written repetition	3.24	COG	
16.	Connect words with a personal experience	3.23	MEM	
34.	Translate the word from Thai to English	3.23	MET	
19.	Spell words aloud when studying	3.21	MEM	
18.	Say words aloud when studying	3.19	MEM	
20.	Learn the words of an idiom	3.17	MEM	
24.	Remember words by underlining initial letter of the words	3.17	MEM	
21.	Connect the word with its synonyms or antonyms	3.14	MEM	
6.	Use an English-English dictionary	3.10	DET	
33.	Read English media for example cartoon books, magazines, novels, website etc.	3.10	MET	
37.	Play online games	3.10	MET	
38.	Try to speak or describe things in English	3.09	MET	
17.	Make a group of words by topic	3.05	MEM	
36.	Play vocabulary games	3.03	MET	
1.	Analyze part of speech such as verb, noun, and adjective.	3.02	DET	
30.	Take notes of newly learned words in class	3.01	COG	
23.	Stick the word and its meaning in the place where it can be obviously seen.	3.00	MEM	
31.	Review words by reading the vocabulary section in textbook.	2.95	COG	
39.	Practice by doing vocabulary exercise	2.95	MET	
2.	Analyze affixes and roots	2.93	DET	
14.	Interact with native speakers	2.91	SOC	
5.	Use flash cards	2.90	DET	
25.	Use physical action when studying words. For example, you walk when you remember the word "walk"	2.90	MEM	
28.	Keep a vocabulary notebook everywhere you go	2.62	COG	
29.	Listen to a tape of word list	2.60	COG	Seldom used strategy

As illustrated in Table 3, 33 strategies were ranked from the highest mean score of *sometimes used* VLSs to the lowest mean score of *seldom used* VLSs. The majority of vocabulary learning strategies (29 items) were sometimes used, while only item 39 in the cognitive category ‘*listen to a tape of word list*’ was seldom used, with the lowest mean value (mean = 2.60). For the strategies that the students sometimes employed, 11 items were in the memory category (Items 15, 22, 16, 19, 18, 20, 24, 21, 17, 13 and 25), eight items belonged to the meta-cognitive category (Items 32, 35, 34, 33, 37, 38, 36 and 39), four strategies were in the determination category (Items 6, 1, 2 and 5), four items were in the cognitive category (Items 30, 31, 28 and 29) and two strategies belonged to the social category (Items 13 and 14).

2. The variations in students’ VLSs use according to the fields of study

According to Table 4, there was a significant difference in the use of VLSs among vocational students in the three fields of study.

Table 4: Variations in students’ strategy use in five categories according to fields of study

VLSs Category	Fields of study						F	Patterns of variation
	Eng. (n = 127)		Acc. (n = 41)		Host (n = 74)			
	\bar{x}	S.D.	\bar{x}	S.D.	\bar{x}	S.D.		
Determination Strategies	3.21	.56	3.26	.63	3.28	.58	.41	
Social Strategies	3.30	.63	3.32	.64	3.44	.52	1.21	
Memory Strategies	3.07	.66	3.22	.69	3.32	.65	3.37*	Host>Acc>Eng.
Cognitive Strategies	2.91	.75	3.00	.80	3.03	.66	.67	
Meta-cognitive Strategies	3.10	.80	3.13	.86	3.13	.69	.05	
Overall	3.11	.58	3.19	.58	3.25	.50	1.65	

Note: * Sig at P < 0.05

(Eng. = Engineering, Acc. = Accounting, Host = Hotel and tourism)

As revealed in Table 4, the results showed that the hotel and tourism students employed VLSs significantly more frequently than accounting and engineering students in the memory strategies. On the contrary, there were no significant differences across these three fields of study in the use of determination, social, cognitive and meta-cognitive strategies. Interestingly, although the use of strategies in the other four categories did not vary significantly according to students' major fields, the hotel and tourism students reported slightly higher use of all VLSs than engineering and accounting students. In addition, the mean score of social strategy reported by the hotel and tourism students was in the range of "frequently" (mean = 3.44).

The variations in the students' use of total 39 vocabulary learning strategies according to their fields of study were presented in Table 5 below.

Table 5: The significant variations in the students' strategy use according to fields of study

No.	Strategies	Fields of Study						F	Patterns of Variation
		Eng. (n=127)		Acc. (n=41)		Host (n=74)			
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Determination Strategies									
4.	Analyze any available pictures or gestures	3.46	.85	3.44	.63	3.77	.75	4.03*	Host>Eng >Acc.
Social Strategies									
14.	Interact with native speakers	2.77	1.05	2.83	.92	3.19	.95	4.26*	Host>Acc. >Eng.
Memory Strategies									
18.	Say words aloud when studying	2.99	.93	3.29	.93	3.47	.92	6.58**	Host>Acc. >Eng.
19.	Spell words aloud when studying	3.05	.92	3.34	.88	3.42	.97	4.22*	Host>Acc. >Eng.
Meta-cognitive Strategies									
37.	Play online games	3.29	1.12	3.00	1.14	2.81	1.18	4.31**	Eng>Acc >Host

Note: *Sig at P<0.05, ** Sig at P<0.01

(Eng. = Engineering, Acc. = Accounting, Host = Hotel and tourism)

Table 5 demonstrates significant variations in the use of VLSs according to fields of study. Five out of 39 VLSs had significant differences among the three fields of study. However, the results showed that there were three patterns of variation relating to three fields of study.

The first variation pattern, “Host > Eng. > Acc.” indicates that there was a significantly greater mean of hotel and tourism students than engineering and accounting students ($F = 4.62, P < 0.05$). In other words, hotel and tourism students used (item 4) ‘*analyze any available pictures or gestures*’ strategy (determination category) more frequently than engineering and accounting students.

The second variation pattern was “Host > Acc.> Eng.” indicating that there were significantly greater means of hotel and tourism students than accounting and engineer students. Three strategies that hotel and tourism students employed more frequently than accounting and engineering students were items 14, 18, and 19 ‘*interact with native speakers*’ ($F = 4.26, P < 0.05$), ‘*say words aloud when studying*’ ($F = 6.58, P < 0.01$), ‘*spell words aloud when studying*’ ($F = 4.22, P < 0.05$) respectively.

The third pattern “Eng.> Acc.> Host” shows that there was a significantly ($F = 4.31, P < 0.01$) greater mean of engineering students than accounting and hotel and tourism students. The results reported that ‘*play online games*’ strategy (item 37) had a higher frequency of use by engineering students than accounting and hotel and tourism students.

The results of the interview were in line with the responses from the questionnaires. During the interview, two out of three hotel and tourism students stated that they usually learned vocabulary from native speakers. During the internship, participants had to speak English with native speakers. When they did not understand the words, they asked the native speakers to speak slowly or to explain it again. In contrast, two out of four engineering students pointed out that they were exposed to English within the classroom and when playing games.

For ‘*say words aloud when studying*’, and ‘*spell words aloud when studying*’ strategies, three hotel and tourism students cited that they usually said and spelt the words out loud when they were studying vocabulary, especially when their English teacher taught these strategies in class. After the class ended,

the teachers assigned homework. They needed to remember the words, English sentences and their meanings. This was especially true for participants in hotel and tourism. Therefore, these strategies helped them learn and retain those words.

In terms of '*play online games*', three out of four engineering students informed that they frequently learned new vocabulary from the online games. They reported that while they were playing games, they had to follow English instructions. It was a new and different way to acquire English words.

Discussion

This study was limited to exploring VLSs use of first-year high vocational certificate students in three fields of study; engineering, accounting and hotel and tourism in Krabi Province, Thailand. The difference in using VLSs between males and females was not measured.

The results of this study showed that vocational students employed all five categories at the frequency level of "sometimes". A possible explanation for this finding may be related to the neglect of explicit teaching and learning of vocabulary (Hedge, 2000; Schmitt, 1997). In Thailand, vocabulary has not received attention as a subject, but is taught as a part of listening, speaking, reading and writing (Nirattisai & Chiramanee, 2014). Therefore, a lack of attention to vocabulary learning and teaching appears to be a key factor affecting students' use of VLSs (Siriwan, 2007).

The social category was used with the highest mean. The finding of this study was not in line with the results of Komol and Sripetpun's study (2011) and Nirattisai and Chiramanee's study (2014) which found that social strategies were the least used by university students. However, students need social support and interaction with others to learn languages (Chang, Weng & Zakharova, 2013). This was in line with the interview session. Seven students reported that their teachers created relaxed classroom atmosphere. Students felt comfortable interacting with others in classroom.

Among the 39 strategies, the strategy '*analyze any available pictures or gestures*' was reported as the most employed VLSs with '*listen to a tape of a word list*' the least employed. The most frequently used strategy of '*analyze any available pictures or gestures*' could be explained in relation to materials that

attract students' attention. According to Copper (as cited in Abebe & Davidson, 2012), pictures aid students to determine the meaning of words. Plass, Chun, Mayer, and Leutner (1998) and Oxford and Crookall (1990) also supported that visuals and verbal modes aided students to learn second language. Furthermore, Shahrokni's study (2009) suggested that the combination of text and images glossary could help students learn more vocabulary. In this current study, six students reported that there were many pictures and symbols in their English textbooks and learning materials that aroused their interest while they were studying.

Listen to a tape of word list was the least used strategy. This finding was consistent with a study done by Nirattisai and Chiramanee (2014). They found that students rarely employed the '*listen to a tape of word list*' strategy. One explanation of the present result seems to relate to Information and Communication Technology. Many new technologies have been invented to aid learning acquisition whereas a tape of word list appears to be out-of-date. Larrotta (2011) suggested that teachers provide activities which students can learn words in everyday-life instead of giving them vocabulary lists. In addition, teachers might use more modern technologies in the classroom. In students' interview sessions, six interviewees expressed that their teachers used various kinds of modern teaching and learning materials such as CD, dictionary online, or YouTube.

In relation to the variation in the students' use of VLSs and fields of study, the results showed three patterns of significant variation. Hotel and tourism students used the strategies '*say words aloud when studying*', and '*spell words aloud when studying*' which were in the social strategy greater than accounting and engineering students. However, engineering students employed the strategy '*play online games*' (meta-cognitive strategy) at a higher frequency than accounting and hotel and tourism students. One possible explanation might be related to the different characteristics of students. According to the studies of Bernardo and Gonzales, (2009), Boonkongsaen and Intaraprasert (2014), Tsai and Chang (2009), students from various fields of study employed different VLSs. The results of those studies also revealed that a field of study is one of the factors affecting students' VLSs use. In this study, hotel and tourism students were more

extroverted. Meanwhile, students with engineering background were likely to rely on media or technology.

The exposure to language can be one explanation for the participants' use of the social strategy, *'interact with native speakers'*. Students with more exposure to English tended to have a greater frequency of VLSs use (Nirattisai & Chiramanee, 2014). The hotel and tourism students had to work and interact with foreigners. Furthermore, they had more experiences in learning language outside the classroom, especially while they were trainees. The experiences provided them more opportunities to use and learn more vocabulary than engineering and accounting students. It was consistent with Boonkongsaen and Intaraprasert's study (2014) which concluded that learners who had exposure to English beyond classroom instructions employed VLSs more frequently than learners who had exposure to English only within classroom instructions. In addition, language learning experience had strong effects on students' VLSs use (Boonkongsaen, 2012).

The strategy *'analyze any available pictures or gestures'* was not only the most frequently used by students, but also had a significant difference among three fields of study. The results showed that hotel and tourism students used this strategy more frequently than engineering and accounting students. The difference may be explained with regard to learning materials that the teacher provided students in class. Students in all three fields of study reported that there were many colored pictures in their textbooks. Their teacher also provided interesting learning materials for them in class. This is consistent with the interview results. The hotel and tourism participants stated that they had to learn a lot of English vocabulary, words and phrases, technical terms and expressions, and symbols in their three English subjects while engineering students had to learn two English subjects. The accounting students described learning only one subject, Basic English. This suggested that hotel and tourism students had more opportunities to learn English through learning materials in classroom than engineering and accounting students.

Conclusion

This study aimed to investigate vocational students from varying fields of study with regards to their choice of VLSs. The results showed that, overall, vocational students sometimes used VLSs to learn vocabulary. Moreover, the students tended to rely on social strategies. In addition, there were significant differences of VLSs use among the three fields of study. The results of this study suggest that students should be aware of their VLSs use, realize the importance of VLSs, and know that different kinds of VLSs can be used and applied both inside and outside the classroom. So, they can utilize the VLSs that are appropriate to a specific situation. Moreover, the results indicate that students employed the determination strategy and social strategy more than the other strategies. In this respect, teachers should teach and encourage students to use a wider range of VLSs both in-class and in self-directed activities, so that students can take more individual responsibility for their own learning.

For future research, it might be worth exploring VLSs employed by other groups of professional fields of study using more research instruments, for example, class observation and in-depth interviews in order to obtain a deeper understanding of VLSs used by a wider range of vocational students.

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