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## **Foreword**

### **Encouraging Voice and Agency in ESP writing**

**Roger Nunn**

*The Petroleum Institute, Abu Dhabi*

**Colin Toms**

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Welcome to the June 2015 issue of the Asian ESP Journal. Firstly let us take this opportunity to re-affirm our belief in the author's voice and agency appearing transparently in the paper. We are interested in the belief system underlying the paper and strongly support policy in journals such as *Science* and *Nature* in affirming that a first person subject of an active voice is a choice that is always available and is appropriate when the author is agent of the actions taken or the beliefs being expressed. We do not impose limits on the linguistics choices available to authors. Appropriate choices depend on context and communicative purpose so we do not want to impose a deterministic generic structure or style. To cite an example from this issue, we encourage agency in sentences like the following:

In this initial small-scale exploratory study, I adopted a descriptive research design with the aim of investigating the students' use of lexis, with particular attention to AWL words, as a part of their academic literacy skills.

This does not mean we reject the following impersonal version if authors prefer it, but we do not see any reason for the choice of an impersonal voice when the author is the agent who chooses the design:

In this initial small-scale exploratory study, a descriptive research design was adopted with the aim of investigating the students' use of lexis, with particular attention to AWL words, as a part of their academic literacy skills.

In the example below, we are happy to support the choice of a first-person voice. We believe there would be a loss of authenticity if the author had selected an impersonal passive:

For more than two decades in my work with technology university students in Taiwan, I have witnessed their struggles with ESP academic reading.

In the more formal impersonal version below, we feel that the impersonal voice unnecessarily disguises the author's obvious engagement in the educational process and would result in a very clumsy sentence:

For more than two decades in the present author's work with technology university students in Taiwan, their struggles with ESP academic reading have been witnessed.

In this issue, we are happy to present six studies from a variety of Asian contexts. In *Exploring the development of lexical verbs in academic writing: a multiple-case study of three Chinese novice researchers*, Bixi Jin explores the complexities of developing competence in terms of variation and sophistication in the use of lexical verbs in advanced academic writing. She suggests pedagogical approaches to support consciousness raising for novice researchers who may feel that simple vocabulary is sufficient and explains how the use of a corpus could support learning.

Tanju Deveci investigates a related but different lexical issue in a different context in *Communication students' use of lexis in a writing examination*. He explores freshman engineering students' lexical sophistication in relation to general service lists and academic word lists. He finds that while the texts the students read are adequate in terms of academic lexis, the students' own output does not reflect this. In this different context, similar to that of Bixi Jin, Deveci points out the need to consider ways of developing lexical sophistication pedagogically and makes several practical suggestions for his context that may be adapted for use in other contexts.

Assessment practices also inform Alavi & Dashtestani's study, which considers the attitudes of Iranian EAP university instructors to formative assessment in EAP instruction. Polling a corpus of 56 instructors, the authors note generally positive attitudes to formative assessment *in tandem* with an awareness of its merits. However, the instructors were not assessed as possessing the requisite expertise for implementation of formative assessment in the Iranian context (the dominant means of

assessment being the final exam). Recommendations are made on how to incorporate formative assessment into the Iranian EAP curriculum.

Learner use of lexis in academic writing drives *Citation in Vietnamese TESOL: Analysis of master's thesis introduction chapters* by Loan and Pramoolsook. Their study, which focuses upon in-text citations in introductory chapters written by Vietnamese students, reveals that their subjects were broadly unaware of the rhetorical consequences of their citations. The authors subsequently argue for a need to increase the amount of formal instruction in academic writing courses, thereby equipping novice writers with the means of successfully acknowledging their sources. It further recommends raising awareness of the rhetorical effects that use of citations and reporting verbs have in academic writing.

Tsai-Yu Chen's contribution, *Self-regulated learning: Effect on genre-based research article reading for underprepared graduate students*, explores genre-based research article reading within an SRL framework. Quantitative methodology is employed to explore how underprepared graduate students construct their genre knowledge to facilitate reading. Results showed that adopting an SRL approach to genre-based RA reading instruction can prove effective for underprepared EFL graduate students. A corollary of this is that instruction alone is insufficient, as this may not enable learners to use genre knowledge to effectively activate reading comprehension. Chen observes that knowledge must be explicitly linked to appropriate goal setting and outcome monitoring by the learner. Implications for genre-based pedagogy and further research conclude the piece.

In our final piece this issue, Xie and Adamson focus upon the efficacy of English for Occupational Purposes programs as conducted in Chinese workplaces. Employing a synthesis of theories and evaluation models, a framework for evaluating workplace EOP programs is developed. This is then applied in case studies of two EOP programs and concludes that participants had reached an intermediate level of language competence. However, it is suggested that while EOP training programs are effective in preparing employees for business communication in the short term, long-term progress may be deleteriously influenced by factors such as learning environment and learner commitment.

Though the articles featured in this issue may differ in aspect, all are nonetheless united by the core value of respect for the authorial voice. As a matter of course, we encourage and promote linguistic choice, leaving our contributors free to report their actions or express their beliefs without hindrance or editorial interference. This is a value which lies at the very heart of *Asian ESP Journal's* philosophy.



## **Exploring the development of lexical verbs in academic writing: a multiple-case study of three Chinese novice researchers**

Bixi Jin

*University of Cambridge, UK*

### **Biodata**

Bixi Jin obtained her MPhil degree in Research in Second Language Education at the University of Cambridge. This paper is based on the research conducted during her Master's studies in Cambridge. Her research interests include L2 motivation, corpus studies, and writing for scholarly publication in English.

### **Abstract**

Situated in the Chinese EFL context, this study was conducted to explore the developmental trajectories of the lexical verbs employed in academic writing of three Chinese novice science researchers. Three corpora were used to keep track of the use of lexical verbs over time in terms of the richness in variation and sophistication. Semi-structured interviews were used to interpret the trajectories by examining the participants' vocabulary learning experiences within the sociocultural context.

The findings indicate that the trajectories of verb variation and sophistication differed. The trajectories of the verb sophistication exhibited irregular or consistent downturns; in contrast, improvements in variation were perceived. The negative relationship between these two indices suggests that development in one aspect of lexical richness does not necessarily result in any obvious improvement in the other aspect. The analysis of the interview data revealed that there is a complex interplay between vocabulary learning approaches, contextual influences and the development of lexical verbs in academic writing practices.

Pedagogical implications are suggested for teachers of academic writing courses. Strategies are recommended for consciously raising novice researchers' awareness of lexical choices to cope with challenges arising from disciplinary discourse community, as well as for incorporating corpus-based learning. Finally, the limitations and directions for future research are discussed.

Keywords: lexical verbs; verb variation and sophistication; academic writing; academic literacy; vocabulary learning approaches; Chinese EFL context

## 1. Introduction

It is generally accepted that vocabulary proficiency plays a crucial role in determining the overall quality of second language (L2) writing (Laufer and Nation, 1995; Laufer, 1994). However, it has been found that L2 learners have limited lexical repertoires required for writing at university or a more advanced level (Paquot, 2010; Evans and Green, 2007; Khachan and Bacha, 2012), in particular, learners' insufficient knowledge of lexical verbs. An inadequate mastery of verbs constrains their abilities with regard to "expressing personal stance, reviewing the literature, quoting, expressing cause and effect, summarizing and contrasting" (Paquot and Granger, 2009, p.193), which has become an emerging concern in academic writing.

The majority of the studies have followed one-off comparisons of the use of lexical verbs based upon frequency counts between native and non-native learners in two large written corpora. Research conducted by Paquot and Granger (2009) and Wang and Zhang (2007) followed this approach, and the conclusions they obtained are generally similar in pointing out the limited verb repertoires exhibited in L2 learners' writing by relying upon a small range of simple verbs like *think*, *get*, *know*, *use*. However, little research has focused on keeping track of L2 learners' development of lexical verbs in academic writing, which could inform us on how learners' verb knowledge develops from a basic level to a more advanced level. In addition, the role of social context in influencing vocabulary development in L2 writing has not been fully explored.

This study aims to probe into these two issues by investigating the development of Chinese novice scientists' verb knowledge in writing science research articles, and the underlying factors that might influence the progression of verb use. It has been found that their lack of language proficiency makes it extremely hard for them to use varied vocabulary to construct their meaning in writing, and thus "subjects them to great pressure and contributes to their perception of being disadvantaged" (Huang, 2010, p. 34). Therefore, their vocabulary development and learning experiences deserve further investigation, filling the gap by investigating the use of verbs over time



in novice researchers' written texts. The results will provide pedagogical implications for teachers regarding L2 academic writing in order to consciously raise novice researchers' awareness of verb choices that can help them to cope with the challenges arising from the discourse community. The corpus-based teaching and learning approach is recommended to improve Chinese novice scientists' limited repertoires of verb knowledge in an effective way.

Recognizing the importance of examining vocabulary in academic writing, the study adopts a multiple case study approach that focuses on examining several learners' improvement in the use of lexical verbs over time. Further, it is proposed that detailed investigation through using qualitative methods can further investigate learners' vocabulary learning experiences, and enable a better understanding of the social context in which their academic writing processes are embedded. The research questions are proposed as follows:

1. How do the lexical verbs used in academic writing develop over time in terms of variation in the three Chinese novice researchers?

This question aims to examine the changes of the proportions of different verbs used in total lexical verbs in academic writing. TTR (type-token ratio) is adopted to calculate the verb variation.

2. How do the lexical verbs used in academic writing develop over time in terms of sophistication in the three Chinese novice researchers?

The question aims to examine the changes of the percentage of sophisticated verbs used in academic writing. The percentage of verbs that do not belong to the most frequently used 2,000 vocabulary (beyond-2000) measured by VocabProfile software is used to calculate verb sophistication.

3. What are the vocabulary learning experiences of the novice researchers and how do they influence their trajectories of verb variation and sophistication?

The research aims to explore how the use of lexical verbs in L2 writers' disciplinary writing are affected by their vocabulary learning approaches, learning experiences and factors arising from sociocultural context. Thus, trajectories of lexical richness can be better understood not only through quantitative analysis, but also through in-depth qualitative accounts.

## 2. Literature review

### 2.1 Lexical use in L2 writing

It is generally accepted that vocabulary has become a crucial indicator for determining the quality of second language (L2) writing (Engber, 1995; Laufer, 1994; Laufer and Nation, 1995). Laufer and Nation (1995) state that “a well-used rich vocabulary is likely to have a positive effect on the reader” (p.307), which indicates the critical role learners’ vocabulary knowledge plays in writing. In their early study, they proposed several analytical indicators for measuring lexical knowledge in L2 production. Among the various indicators, *lexical variation* and *lexical sophistication* are considered the most common measurements. By definition, *lexical variation* (i.e., TTR) refers to the proportion of different types of words in a written text; *lexical sophistication* refers to the proportion of words in terms of frequency level in a text, i.e., the most frequently used 1000 and 2000 English words. The *Vocabprofile* programme developed by Laufer and Nation (1995), directly measures these two indicators. Later, this programme was widely used to measure L2 learners’ vocabulary knowledge gains in writing samples (e.g., Ma, 2013). Ma (2013) employed variation to examine the lexical items of two Chinese students and two native speakers in academic writing in the humanities and social science disciplines. In contrast to the view that varied lexis determines high quality writing, she pointed out that a high ratio of lexical variation is not always considered desirable in social science disciplines, because of the emphasis on the accuracy and appropriateness of the use of lexis.

In addition, some studies have investigated the use of certain lexis in L2 writing. Paquot and Granger’s (2009) corpus-driven study explored the use of lexical verbs in academic writing in native and nonnative learner written corpora. They concluded that EFL learners had a relatively limited range of lexical verbs in comparison with native speakers, and recommended the inclusion of more relevant exercises targeting the use of lexical verbs in academic writing during instruction. The corpus-based approach provided a panoramic picture of the use of lexical verbs, which made the results reliable and also highlighted the vocabulary problems faced by EFL learners. However, the existing studies largely focus on the final results of lexical richness achieved by learners or one-off comparisons of vocabulary use between native and nonnative learners. This statistical approach loses sight of learners’ improvement over time, which will be reviewed in the next section.

## ***2.2 L2 vocabulary development in L2 writing***

The growing interest in vocabulary studies promotes the exploration of L2 vocabulary knowledge development in L2 writing. The literature in this area has often quantitatively examined the use of total vocabulary or certain group of vocabulary (e.g., collocations) in a L2 learner or several learners' writing samples over a period of time, enabling the developmental trajectories of vocabulary in terms of the different analytical indicators to be observed. Moreover, these studies are also concerned with exploring the situated nature of L2 writing development by taking into account factors such as the learning process and educational contexts that may have an impact on lexical progression.

Laufer (1991) initiated a study to explore the vocabulary development of language learners at a university, where 47 argumentative writings written in different times were collected. Laufer found that the proficient learners adopted a "playing safe" attitude by relying upon a limited amount of vocabulary items that are most familiar to them. Tan (2006) demonstrated a high ratio of lexical richness among 157 first and second year Chinese university students, but less varied vocabulary was found among third and fourth year students. Tan pointed out the nonlinear nature of productive vocabulary development and attributed this to the fact that third and fourth year students might concentrate more on structure, fluency and rhetoric in writing than lexical richness.

Since learners with equal language proficiency may exhibit different trajectories because of their different educational experiences, several studies focused upon explaining vocabulary development from individual learner perspective adopting case study approach. Zheng's (2012) longitudinal study explored the developmental pathways of vocabulary knowledge (i.e., vocabulary size and lexical richness) in writing for eight university students. The findings revealed that different patterns of individual vocabulary development were strongly influenced by their motivation in terms of the ideal/ought-to-self, and situational forces arising from the sociocultural and pedagogical context in China. Li and Schmitt (2009, 2010) built several longitudinal learner corpora to investigate how formulaic sequences and collocations used in academic writing assignments change over an academic year. They observed that patterns of lexis development exhibited various trajectories, which cannot be simply observed by the group performances.

Limitations are visible in the studies of vocabulary development in second language writing. An expansion of the research context is also needed, as existing studies are still restricted to coursework writing assignments. Little is known, however, about graduate students' vocabulary knowledge development in writing longer research articles with a particular disciplinary focus. The trajectories

for their lexical richness might be different from those of the participants in previous studies, and so will help to enrich the findings of vocabulary research in scholarly writing practices.

### ***2.3 L2 Vocabulary learning***

A growing body of studies has attempted to investigate L2 learners' vocabulary learning approaches either from the teachers' explicit instruction or learners' own vocabulary learning strategies. Sanaoui (1995) combined self-reports and individual cases to explore adult second language (L2) learners' approaches to vocabulary knowledge, and showed that vocabulary learning approaches were categorized into either a 'structured' or 'unstructured' approach in terms of the frequency learners recorded and reviewed new vocabulary, practiced outside the course, and created opportunities to learn. Results showed that learners who managed structured approach by engaging vocabulary learning activities regularly performed better than those who did not. Gu (2003) revealed that the recurring vocabulary learning strategies were learned from reading, memorization of word lists, and practising in real situations (mainly speaking, listening and reading). Ma (2009) conducted a questionnaire survey to identify common vocabulary learning practices among Chinese advanced learners. The results reported the common problems in their vocabulary learning approach: rote memorization, seldom reviewing or practising of newly learned words, and a heavy reliance upon textbooks and teacher instruction to obtain new vocabulary. Recently, Ma (2013) identified that academic essay writing can offer university students opportunities to use their newly acquired words and, in return, improve their academic writing performance.

From the literature mentioned above, it is suggested that the vocabulary learning process can be further explored by investigating different writing contexts. Learning and using language in an accurate and appropriate manner in scholarly writing practices (e.g., writing research articles for publication in international journals) is seen as a form of advanced academic literacy (Li, 2007a, 2007b), but it is a topic of less concern. The theme of academic literacy will be examined in the following section.

### ***2.4 Second language academic literacy studies***

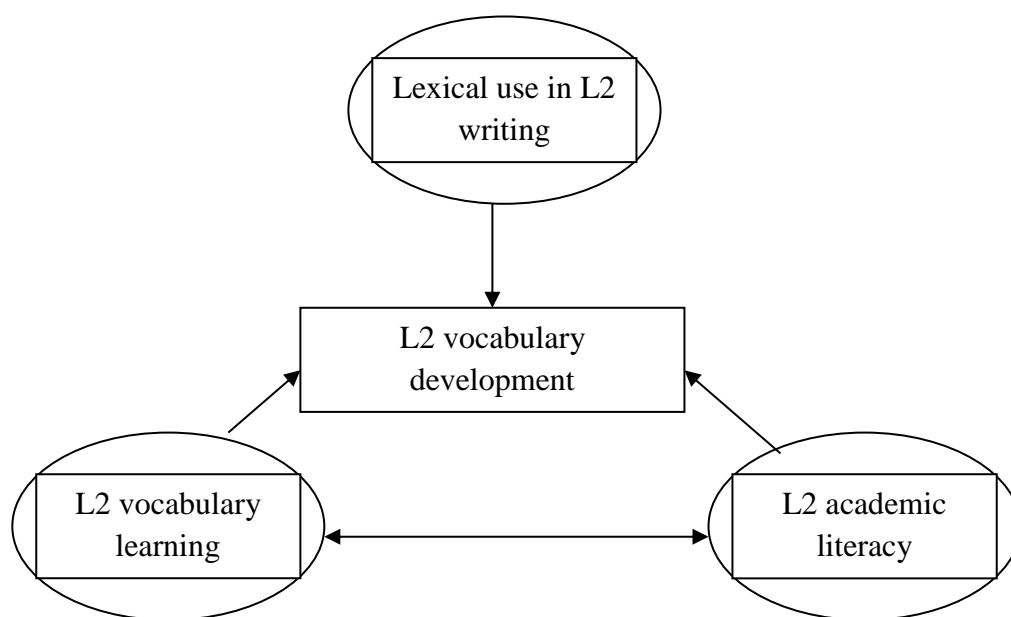
According to Casanave (2002), academic literacy involves understanding the textual, social and political literacy 'games' of academia" (as cited in Zappa-Hollman, 2007, p.23) that might affect learning to write in academic settings. Casanave's categorization is comprehensive, though not concrete. Ferenz (2005) further elaborated upon academic literacy including "knowledge of the linguistic, textual, social and cultural features of academic written discourse as well as knowledge

of English as used by their academic disciplines” (p.340). In this regard, the development of academic literacy is of importance in that it has become the prerequisite for producing “appropriate” disciplinary written language (Ferenz, 2005). Learning to write in academic settings is thus a socially situated practice shaped by disciplinary discourse communities (Green, 2013).

Most of the research has discussed how graduates develop academic literacy in writing a thesis or research articles through building interactions with their supervisors, peer students and EAP professionals (Gosden, 1996; Li, 2007a, 2007b; Huang, 2010). Li (2007a) conducted a single case study exploring a novice doctoral researcher’s (Yuan’s) experience of constructing research articles for publication in the field of chemistry. Using various data sources such as process logs in writing, developing drafts, online message exchanges and interviews, she identified the social interactions with supervisors, peer students and the disciplinary community that had an impact on Yuan’s writing, and thus revealed the socially constructed nature of academic literacy development. Huang’s study (2010) pointed out the ineffectiveness of university writing curricula and the dominant role of advisors as the main factors in ‘demotivating’ Taiwanese doctoral students’ disciplinary writing practices. Guo (2014) pointed out Taiwan university students’ heavy reliance upon reading to improve their academic literacy in undergraduate research writing and suggested the need for adequate academic interactions.

## ***2.5 Conceptual framework***

From the literature review above, we can see that L2 vocabulary development in writing cannot be simply understood from calculating the lexical richness. More research has focused on considering how vocabulary development interacts with a particular sociocultural context. Figure 1 demonstrates the conceptual framework I adopted in this study. In this framework, L2 vocabulary development in disciplinary writing is examined quantitatively to see the nonnative novice researchers’ actual use of lexical verbs. More importantly, further research is conducted to investigate how disciplinary writing shaped by institutional setting and disciplinary community can influence their vocabulary learning and thus trajectories of vocabulary development.



**Fig. 1: Conceptual framework of the current study**

### **3. Research methodology**

#### **3.1 Sampling**

Convenience sampling was used in the research to choose the participants. It has been suggested that convenience sampling is appropriate for conducting a case study or a multiple-case study research taking “time, money, location, availability of sites or respondents” (Merriam, 1998, p.63) into account. Due to previous personal communications with the three participants, the researcher has easy access to them and the time and money required can also be kept to a minimum. In addition, the three participants selected in this study have rich experience of writing for international publication, and thus can allow the researcher to conduct in-depth investigation of their writing experience.

#### **3.2 Participants**

The participants were three young male researchers in the Engineering Department in a Chinese university. Two of them have already obtained their PhD degree from the department, and are currently lecturers in the department. The other subject was a PhD student, who is due to complete his study within the next two months. All of their major research areas are Fluid Physics and they

are all project members of their supervisor, Prof. J<sup>1</sup>. Their English language proficiency is CET (Band 6), which could be considered as learners at advanced English level.

### **3.3 Data collection**

The multiple-case study approach was adopted involving three participants. This approach can generate rich and detailed descriptions of learners' vocabulary development over time. Also, multiple data sources including interviews, writing samples and vocabulary notebooks are collected, not only for the purpose of keeping track of the change of lexical verbs quantitatively, but also to shed light upon the social contextual factors influencing the development. It is also consistent with Yin's (2003) claim that multiple data sources are complementary to each other.

To address the first three research questions, I collected the texts from the same participants who wrote the texts in the past five years (see Table 1-Table 3). The aim is to establish three individual corpora, which could better inform how learners' vocabulary knowledge developed over time. Corpus data came from each participant's English research articles which were written for international journals. The research topic mainly covered the topic relevant to control science. These collected articles were put into chronological order according to the time when they were completed. Tables 1 to 3 present the word count of each piece of writing sample produced by the three participants in different years<sup>2</sup>.

**Table 1: Descriptions of ZK's academic writing samples**

Writing samples	Words	Date of Publication	Date of completion
1	7,306	2009	2009
2	5,554	2010	2010
3	4,527	2011	2011

---

<sup>1</sup> Prof J. has published extensively research papers in peer-reviewed international journals. He is well informed about the rules and principles of writing in scientific disciplines, and often provides support for graduate students in their initial writing stages during lab meetings or regular supervision.

<sup>2</sup> Since the participants did not all begin to write English research papers in the same year, the number of articles each of them wrote varied.

4	4,000	2012	2012
5	3,133	2013	2013

**Table 2: Descriptions of LS's academic writing samples**

Writing samples	Words	Date of publication	Date of completion
1	4,638	2012	2012
2	1,975	2012	2012
3	5,657	2013	2013
4	2,630	2013	2013
5	4,495	2014	2014

**Table 3: Descriptions of LZ's academic writing samples**

Writing samples	Words	Date of publication	Date of completion
1	4,310	2011	2011
2	4,069	2012	2012
3	2,171	2012	2012
4	4,423	2014	2014

In general, ZK's corpus contained 24,520 words, LS's 19,395 words, and LZ's 14,973 words.

Three corpora were built by deleting the titles, abstracts, references, figure captions, figures, tables and notes in the form of *.txt* format so that it is readable by the corpus software. It should be noted that the written texts were not of the same length, so before being put into the corpus tool, each text was divided into several segments of a given length in order to minimize the influence of the length



of writing samples, (Schmitt, 2010) and facilitate the comparisons between different individuals. In this study, each segment contained 1000 words.

After three corpora were built, two instruments were used to search for the lexical verbs in the academic writing samples. A freely available software frequently used for corpus study *AntConc* (Anthony, 2006) was operated to extract the 233 lexical verbs according to the *Academic Keyword List* created by Magali Paquot (2010) (see Appendix A)<sup>3</sup>. The verbs<sup>4</sup> extracted from the files by “start” function in *AntConc* were typed into the .txt files and then put into *VocabProfile*<sup>5</sup> software (Version 4.0) developed by Laufer and Nation (1995) for analysis. This software is free of charge and can be accessed through the website (see Appendix C).

### *Semi-structured interviews*

Three face-to-face interviews were conducted, ranging from 40 to 50 minutes. The interview questions concentrated on two aspects in terms of (1) the approaches to expand lexical verbs; (2) factors that may promote or hinder their vocabulary development in academic writing. They were created based upon the literature relevant to L2 learners’ different approaches in learning L2 vocabulary, as well as the multiple factors embedded in the social contexts that might have an impact upon learners’ verb choices (see section 2.2- 2.4). Open-ended questions were asked with regard to participants’ vocabulary learning experiences in academic writing (See Appendix B). The interview questions were asked in Chinese to reduce the participants’ anxiety and elicit more information. All of the interviews were audio-recorded, transcribed into Chinese and then translated into English. Excerpts are illustrated in the qualitative data analysis section.

### *Vocabulary notebooks*

The collection of the participants’ vocabulary notebooks was frequently used as a data collection method for exploring L2 vocabulary learning (Ma, 2013; Sanaoui, 1995), which aimed to provide additional evidence of the learners’ learning habits and vocabulary learning processes. Two participants, ZK and LS, were in the habit of recording newly acquired verbs in the notebooks. However, only LS’s notebook was currently available, which served as additional evidence of his vocabulary learning.

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<sup>3</sup> Compared to the verbs listed in the widely used *Academic Word List* (AWL) developed by Coxhead (2000), the verb list in AKL are comprehensive and better “characterize[s] academic work, organize[s] scientific discourse and build[s] the rhetoric of academic texts” (Paquot, 2010, p.61)

<sup>4</sup> Attention should be paid to the verb forms extracted by *AntConc*. Some of them may not function as verbs, for instance, *measured signals*. Therefore, it is necessary to manually check the extracted verbs and delete those that do not function as verbs.

<sup>5</sup> The software is available online <http://www.lex Tutor.ca/vp/eng/>.

### 3.4 Data analysis

#### 3.4.1. Analysis of corpus data

Two analytical indicators of verb richness were measured in *VocabProfile* software (Version 4): verb variation and verb sophistication. Verb variation was calculated using the type-token ratio (TTR)<sup>6</sup>. It is generally believed that the TTR measure is problematic because of its instability in measuring longer texts lengths (Schmitt, 2010; Lu, 2012). Therefore, the mean-segmental type-token ratio (MSTTR), proposed by Ellis and Barkhuizen (2005), and Schmitt (2010) was proposed. The final TTR is based upon the average ratio of TTR in each segment.

#### *Verb sophistication*

Verb sophistication is denoted by the ratio of words in written texts that belong to the most frequently used 1000 English vocabulary items, the next 1,000 most frequently used items, and the remaining words that do not fall into the frequency levels mentioned above. The proportions can be generated automatically by the *VocabProfile* software, and denoted as K1, K2, and beyond-2000 respectively. However, it is suggested by Laufer (1994) and Laufer and Nation (1995) that the proportion of words that lie outside the most frequently used 2000 English vocabulary items (beyond- 2000), is an important indicator of lexical development. Therefore, in the study, only the verbs at the beyond 2000 level were measured and presented in the following sections.

#### 3.4.2 Analysis of the semi-structured interviews

In the study, each interview transcript was examined in-depth. Tentative themes were generated while reading. Once the analysis of the individual case was completed, the cross-case analysis began by comparing and contrasting the emerging themes reported by different participants to see the similar and different aspects of their vocabulary learning experiences, as suggested by Merriam (1998: p195) who notes that multiple case studies seek to identify “categories, themes or typologies that conceptualize the data from all the cases” . In order to maximize the credibility of the interviews, member-check, as suggested by researchers like Merriam (1998) and Creswell (2009) were implemented to avoid the researcher’s misinterpretation particularly when analyzing the interview data. After transcribing the interviews, the researcher took the emerging themes generated from the interview transcripts with regard to three participants’ situated vocabulary learning

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<sup>6</sup> In the formula TTR, *measure*, *measuring*, and *measured* belong to the same word family *measure*, and they are seen as three verb tokens but with one type of verb (*measure*).

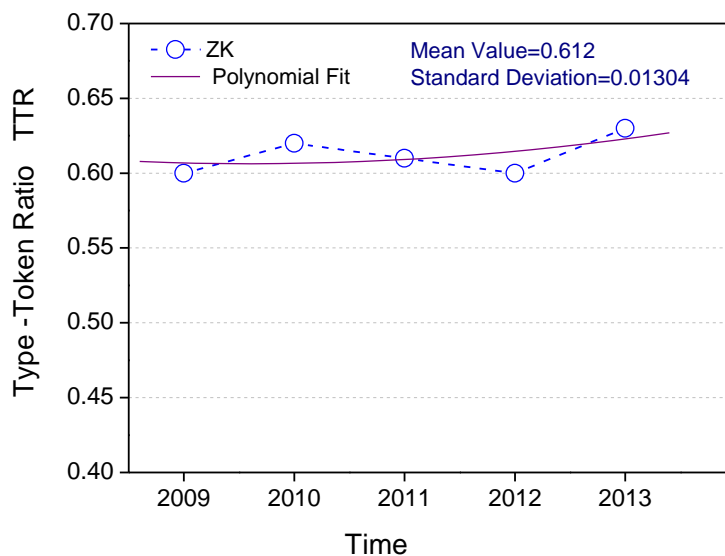
experiences back to the participants for confirmation of the accuracy of their statements, as well as seeking additional comments if they wanted to make them.

## 4. Results

The analysis of verb variation and sophistication showed that they did not follow a linear development in scholarly writing. Qualitative findings revealed that the participants' vocabulary learning experiences were influenced by the sociocultural contexts that may have had an impact on their vocabulary progression.

### 4.1 Development of lexical verbs

#### 4.1.1 Verb variation

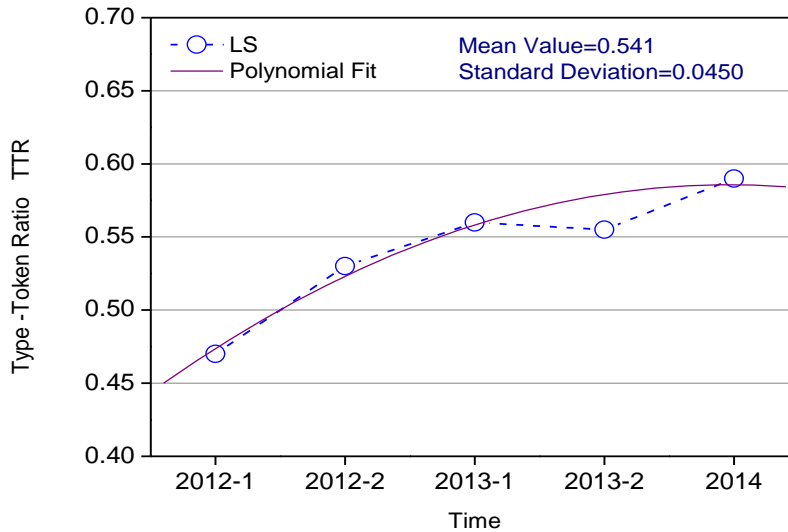


**Fig. 2: Changes in the ZK's verb variation per 1000 words**

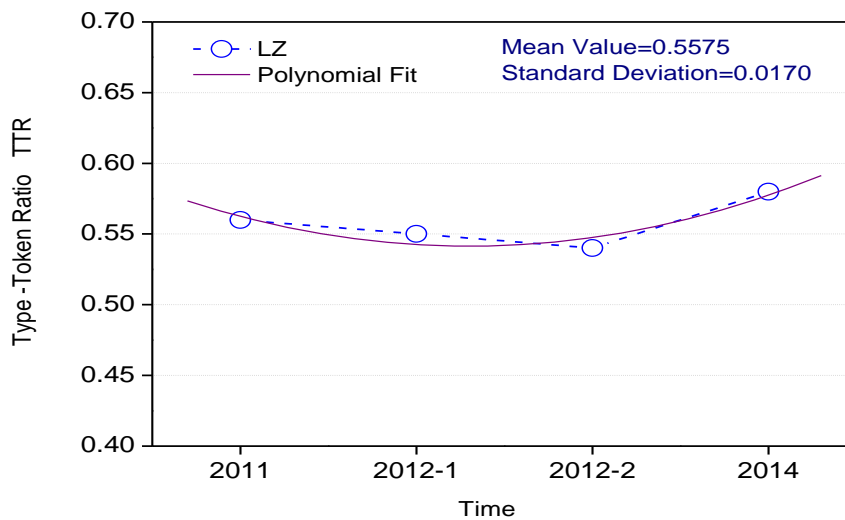
Among the three participants, ZK's verb variation remains extremely stable (0.6) with only minor fluctuations. See Figure 2. The polynomial fitting line (2<sup>nd</sup> degree) demonstrates that the overall pattern of variation remains generally stable, with slightly upward trend. The ratio of variation exhibits an increase from 0.6 to 0.62, followed by a steady decrease from 0.62 to 0.60. After that, a remarkable increase from 0.6 to 0.63 can be identified in the year 2012- 2013.

LS's developmental pathway demonstrates a consistent increase during the period 2013 to 2014, with a minimal decrease in his second paper in 2013 (see Figure: 3).

LZ's verb variation, as reflected in the Figure: 4, is different from ZK and LS. As can be seen, the verb variation experienced an initial decline from 0.56 in 2011 to 0.54 in 2012. From that point onwards, the variation increases substantially from 0.54 to 0.58.



**Fig. 3. Changes in the LS's verb variation per 1000 words<sup>7</sup>**

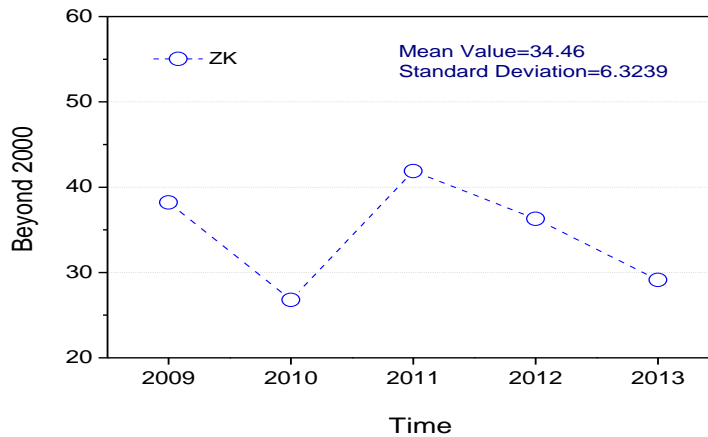


**Fig. 4: Changes in the LZ's verb variation per 1000 words**

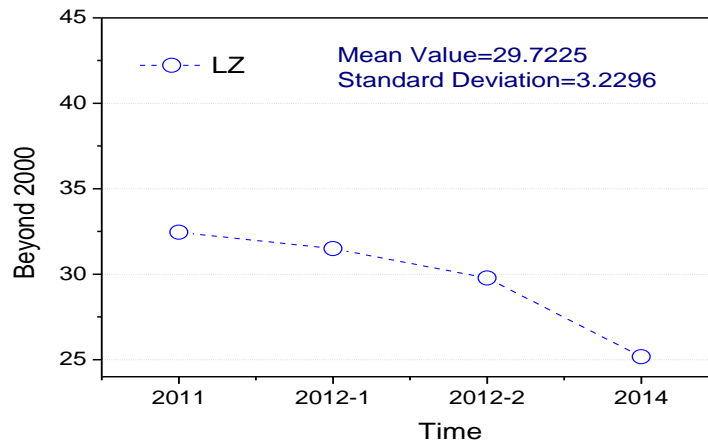
<sup>7</sup> “-1” and “-2” in the figure means the first and second research articles that were written in a particular year. The year without “-” means only one writing sample is collected.

#### 4.1.2 Verb sophistication

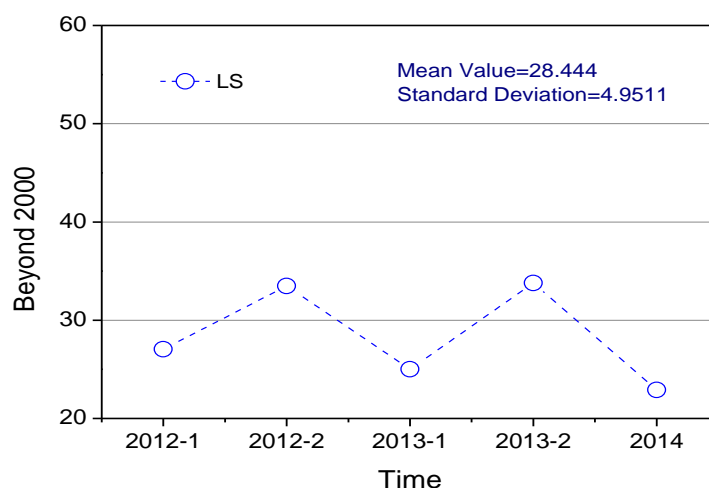
Figs. 5-7 present the ratio of beyond-2000 lexical verbs that the three participants used in their writing. Among the three participants, we can see that verb sophistication development does not exhibit linear patterns of increase, which means that the participants might not use more advanced verbs even though they are writing more research articles. This situation is particularly evident in LZ and ZK's cases where there are obvious consistent downturns over certain time periods.



**Fig. 5: Changes in the ZK's beyond-2000 index per 1000 words**



**Fig.6: Changes in the LZ's beyond-2000 index per 1000 words**



**Fig.7: Changes in the LS's beyond-2000 index per 1000 words**

As demonstrated by the *VocabProfile* software, lexical verbs such as *indicate*, *identify*, *focus*, *enhance*, *generate*, *conduct*, etc., fall into the category of beyond-2000 vocabulary, while the verbs at the most frequent 1,000 and 2000 levels are the ones on which they rely in their writing. Here are the examples of the verbs:

The time series is integrated after subtracting the global average and then divided into windows of equal size...(LZ ,2012)

Magnitude and sign decomposition method can not only characterize signal property...(LZ,2012)

Figure 2 shows the schematic diagrams of conductance sensor.... Figure 3 shows the relationship between the measurement result of turbine flowmeter...(LS, 2012)

The circuit loop is formed between needle electrode and casing...(LS,2013)

There are 90 characteristic vectors and each vector contains ten elements...(ZK, 2009)

Our newly designed four-sector conductance sensor (fig. 1(a)), which enables to measure the local flow behaviour... (ZK, 2013).

## 4.2 Results of the qualitative findings

The analysis of participants' interview data disclosed that development of lexical verbs is dynamically influenced by “multiple factors and processes within the sociocultural context” (Zheng, 2012, p.104). The details are provided below.

### 4.2.1. Reading and writing as the most effective vocabulary learning approach

It was observed in the interviews that *reading articles-identifying the verbs-practising in writing* is a common vocabulary learning approach shared by the three participants, which is considered the most effective approach to acquiring the new vocabulary. However, a number of differences can be identified. To specify, ZK read research articles extensively written by native speakers. He paid attention to the verbs that he used infrequently, and then practised in his writing applying what he had learnt relying upon his memory. LZ reported the similar approach, but he had the habit of recording the newly learned vocabulary in the margins of printed articles. In actual writing practice, he would first rely on his existing repertoires of lexical verbs, and then refer to the recorded verbs to substitute these for the ones that he used repetitively:

Excerpt 1:

“Initially, I just used series simple words, like *introduce*, *propose*, repetitively... I began to read others' work, including well-written articles by native speakers, and experienced senior students like ZK (his English writing serves as the role model in our lab). I highlighted the ‘good’ verbs in sections of the literature review and abstracts (without recording them in a notebook). When I begin my own writing, I first use the verbs I can remember, and then I will refer to those newly acquired verbs to replace some of the verbs I have used, in order to achieve richness of expression...”

LS developed the habit of noting down new vocabulary in his notebook systematically. He noted down verbs like *obtain* as a new word to remember followed closely by brackets with the verb *get* to remind him not to use it again. His acquisition of new verbs like *analyze*, *employ*, *compare*, *assign*, *conclude*, *improve*, *enhance*, *refer*, *achieve*, *consider*, *relate*, *vary*, *correspond*, *calculate*, *focus*, and also some typical reporting verbs like *propose* and *indicate* can be seen in his vocabulary notebook. Therefore, an obvious improvement in the varied use of verbs can be identified as the result of his extensive reading and writing practices.

#### 4.2.2. *Learning from capable others*

It is interesting to note that all the participants mentioned the explicit instructions and scaffolding they gained from their supervisor and peer students in the lab. Basically, discussions and interactions with them helped the participants to learn more about how to enrich their language expressions by using more advanced and infrequent verbs as well as varying the verbs which they knew. LZ noted this in his interview:

Excerpt 2:

“My supervisor attached great importance to my verb choices when I began the journal of science writing. He had rich knowledge in this respect, cos he reads loads of international papers in this field. He knew how to make the verbs varied in the articles... He always reminded me that I could use this verb or that one, and not stick to those I frequently used...The discussions were extremely helpful, and every time I could learn something about vocabulary...Now I have less problem in this area.

From his description, we can see that face-to-face explicit scaffolding provided by his supervisor strengthened his awareness of diversifying his common lexical choices in his own writing. In other words, LZ gained specific linguistic expertise through his sound and interactive relationship with his supervisor.

However, ZK’s learning experience in an American University from 2009 to 2010 on an exchange programme transformed his initial ideas about the use of vocabulary in writing. He reported that:

Excerpt 3:

“My American supervisor L gave me a lot of feedback on writing, including language expressions. He told me it is unnecessary to ‘show off’ how many verbs you know and how advanced they are in your writing, which was what I did in the initial writing stage. Communicating with the senior PhD students in America also confirmed what my supervisor said. At that time, I realized that I should think about accuracy and appropriateness in vocabulary use, instead of over-concentrating on lexical choices.”



In the excerpt, ZK's American supervisor L did not emphasize lexical richness in writing research articles. The explicit mentoring and feedback on ZK's writing made him aware of the appropriate use of verbs. The influence can explain his pathways in verb variation and sophistication. The ratio of variation indeed increased quickly from 0.6 in 2009 to 0.62 in 2010. This was the period when he focused upon vocabulary selection. However, after that, there was a consistent drop which lasted until 2012. Likewise, the proportion of using advanced vocabulary use at the beyond 2000 level showed a consistent decrease since 2011.

#### *4.2.3. Uncertainty and doubtfulness regarding academic writing curricula*

During the interview, the participants generally expressed a negative attitude to the academic writing courses provided by the university. Both LZ and ZK pointed out that the curriculum was a broad introduction to academic writing in the science disciplines. The vocabulary aspect was touched upon, but not in a thorough way, such as introducing and listing a series of vocabulary to substitute for the commonly used words

Excerpt 4:

"I think no specific things were given either in the curriculum. It was broad and general indeed, maybe because of the restricted time...In my view, attending such lessons will not be that useful cos you feel that what the lecturers say will be useful and effective; in actual practice, you will still follow your own preferred word choices...But if they want to comment on my wording, that would be a different story" (laughs).

ZK held the opinion that such specific knowledge could not be taught within the limitations of classroom instruction. Also, he was against the instructions in the curriculum and thought it was of little use if participants did not put what they learned from that instruction into actual practice. What he expected to gain from the instructors was the comments they made upon the students' lexical use in writing, which was a direct way of improving their vocabulary knowledge.

LZ agreed with ZK on whether the instructors were qualified enough to teach vocabulary for academic writing to be used specifically in science subjects. However, he also raised his concern about the teaching staff in the course.

Excerpt 5:

“There were only eight lessons in the whole semester. Just a few pages of materials were distributed. The course was randomly arranged. How to use academic vocabulary was taught, and one thing they told us was to avoid repetitions in word choices. But it was extremely general... (The lecturers) may be experienced and qualified in instructing writing, but I am afraid that they may not know much about the type of writing required in our discipline; it is less helpful to take lessons than

From his report, it can be speculated that academic writing course may not contribute greatly to improve learners’ academic vocabulary. The reason is related to the teaching staff, who may not be helpful because of the lack of adequate knowledge on science writing practices.

Although LS was the only participant who did not attend the writing courses, he did not believe that the instruction provided by the curriculum can make any influences in improving their verb expressions. He still believed in the traditional way of learning through following the *reading-writing-reading* learning pattern that could help him to overcome his insufficient mastery of the lexical verbs required in academic writing.

#### 4.2.4. Contextual influences embedded in vocabulary development

The effect of CrossCheck<sup>8</sup> literacy policy in publishing influenced the three participants’ lexical progression is an emerging theme. Though the original aim of the CrossCheck policy is to prevent plagiarism in publications, it is surprising to note that this policy also indirectly led the participants to vary their verb choices. The point is clearly illustrated in LZ’s report.

Excerpt 6: “The emergence of CrossCheck pushes us to think of more ways to change our common word choices. For instance, I may abandon the verbs that I used to describe a phenomenon in an experiment, thinking of other verbs to substitute for them. I was forced to change actually (laughs)...”

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<sup>8</sup> Fully describing CrossCheck policy is beyond the scope of this study. Generally speaking, it is a software powered by a large database of research articles in professional disciplines, targeted at detecting plagiarism in publications.

Therefore, even though he was required to change the verbs he used to describe the same experiments in different research articles, he felt that it was a good opportunity to try out more novel expressions instead of only using those with which he was familiar with.

Apart from the stimulus of the literacy policy, it appears that ZK and LS, who were the young lecturers in the department and have published more papers in recent years, have faced some challenges exerted by the disciplinary communities. In ZK's case, he mentioned his dilemma of further improvement in lexical richness.

Excerpt 7: "Previously, you can have different language expressions when writing in different research fields. For instance, I may avoid using *characterize* in research articles if I don't write about a nonlinear complex system...However, in recent years, academia advocates consistency and depth in one research field. If you do not produce articles, there will be no problem. It is troublesome otherwise. I have produced many articles in nonlinearity and network theory, and the verb expressions related to the background and the processes of experiments were similar..."

ZK's verb variation and sophistication ratio improved slowly. He attributed the reason to the current mainstream trend of doing research in science research community that pursues depth of research by focusing on one area of inquiry. In this sense, he may recycle a small range of lexical verbs used in one specialized area. As a result, his improvement in lexical richness is largely constrained.

Unlike ZK, LS faced the dilemma of being an experimental scientist. He devoted the majority of his time to physical experimental design and implementation. Hence, the time available for reading and learning to write was greatly reduced. This corresponded to the lowest figures reflected in terms of both verb variation and sophistication trajectories.

Excerpt 8: “The major difference between ZK and myself is that ZK does not have to design and conduct experiments. His research involves interpreting results and constructing theory, so he could have more time to think about polishing his language, just as you said, varying the verbs used or seeking out advanced verbs...But my attention should be focused mainly on planning and conducting experiments, which is the basis of my research. It takes a long time to do that. That is a big difference. I am just a beginner at learning how to write even now, but ZK is already on a fast track that I may not catch up with... But it is the reality. I will continue to improve my language, though it might be slow...”

LS’s challenge lies in how to strike a balance between improving his academic writing and conducting research. From his developmental trajectories in lexical variation and sophistication, we can see that the figures remained the lowest among the three participants in different periods. He attributed his performance to the fragmented time he devoted to improving language expressions in academic writing, due to the nature of the research he conducted. In the interview, he compared the situation he faced to that of ZK:

## **5. Discussion**

In this part, further exploration is provided of the development of the employment of lexical verbs in terms of variation and sophistication, the three participants’ vocabulary learning experiences, and the influences arising from the social context. These major themes, which also correspond to the four research questions, are discussed in the following three sections.

### ***5.1 Trajectories of verb variation and sophistication***

The study looked at the three participants’ trajectories regarding verb variation and sophistication over time. In terms of development in verb variation, the results shown by the different trajectories correspond to the study conducted by Laufer (1991) showing that progress in lexical richness was made among the learners who did not reach the vocabulary level of their peer students. As indicated by the average ratio of individual participants’ verb variations, LS remained lower than that of LZ and ZK; so, he made more effort to vary the verbs. This is also congruent with the findings of Tan (2006) that proficient learners tend to concentrate on achieving precise meaning in writing based upon their current vocabulary and pay great attention to structure and logic in their writing while less proficient learners tend to focus on the varied use of lexical items.

Several explanations can be put forward to account for the insignificant development of verb sophistication reflected by the beyond-2000 score. Firstly, it can be related to Zheng's (2010) finding that the exclusion of lexical richness in pedagogical contexts influenced vocabulary development. Through the interviews, it was found that there was an absence of placing emphasis upon the employment of more low-frequency verbs either in explicit instruction in writing course or regular supervision session. Though their supervisor did mention and encourage them to use these, he could not point out the lexical verbs that can be categorized into "low-frequency". In contrast, improving variation is easier to achieve by merely varying the verbs to make them different from the previously used ones (Laufer, 1994). Further, since the requirements for writing research articles involves more than demonstrating advanced vocabulary (Tan, 2006), the three participants shifted their focus to other aspects, such as logic, structure, or clarity in writing. Consequently, participants were not aware of the employment of the low-frequency verbs and repetitively rely upon high-frequency verbs.

Moreover, the insignificant development of verb sophistication is also constrained by the genre feature of science research articles. Writing science research articles is a disciplinary-specific practice in which lexical choices are different compared with writing in other disciplines. According to Gilbert and Mulkay (1984), scientific discourse is characterized by laboratory work with a focus on the "experimenter's actions and judgments", the minimum involvement of "particular analytic position[s]" and avoidance of "overt references to the author's actions and judgments" (p. 56). These findings were also in line with Ma's (2013) suggestion that lexical richness is not always desirable in science-related disciplines, where vocabulary need to be used in an accurate manner. Therefore, it is hard for participants to employ vocabulary and lexical richness widely in the sense that they do not characterize the main features of science articles.

## ***5.2 Chinese novice scientists' vocabulary learning approaches***

In this study, the three participants took a natural approach to learning vocabulary, instead of using repetitive memorization of a word list, which is considered a common approach to vocabulary learning among Chinese learners (Gu, 2003). The reason for this might be that, as Ma (2013) explained, the learners are not assessed by language tests, as in this particular context, they need to put the acquired verbs into direct use in their writing practice to improve their writing quality. .

Moreover, the three participants did not rely upon the writing courses provided by the department. Two reasons might be proposed to explain the current results. Firstly, the participants' language proficiency had reached a relatively high level, as required by their Chinese university (i.e., College

English Test, Band-6), so they have shifted their focus and extended their efforts to increase their vocabulary knowledge independently of classroom instruction. Secondly, the participants generally had doubts about the effectiveness of university writing instruction. The poorly organized writing course and introduction of general academic vocabulary discouraged them from paying much attention, which is consistent with Huang's (2010) finding.

### ***5.3 Situational forces embedded in L2 vocabulary development***

The qualitative findings lend strong support to the view that the contextual influences arising from the disciplinary discourse community influence the various trajectories of L2 vocabulary development. The participants benefited substantially from their supervisor and capable peer research students during regular discussions or supervision. In addition, the nature of scientific discipline, and the emergence of a new literacy policy in publication process, as reflected in LS and ZK's cases, uncover the nature of the lexical choices in academic writing practices as a socially-constructed process. This echoes Casanave's claim (2002) that the textual, social and literacy policies advocated in certain disciplinary discourse communities have an impact upon academic literacy practices.

Moreover, the three participants in this study were highly motivated and autonomous learners, which are in stark contrast to Huang's (2010) study that portrayed Taiwan PhD students as demotivated in disciplinary writing because of their supervisors' control. A possible reason is that the supervisor in this study offered more student-centred instruction to facilitate disciplinary writing. He gave general guidance on the participants' writing according to his rich experience, while leaving great space for the participants to seek out the way of improving their writing skills that best suited them (see Lai and Tseng, 2012). Therefore, the importance of building an interactive advisor-advisee and peer-peer relationship should be recognized because it can provide substantive expertise and assistance to novice researchers on the one hand, and encourage them to be active learners with high autonomy on the other. The positive academic-oriented relationships may be one of the main reasons underlying the participants' vocabulary growth.

## **6. Conclusion**

### ***6.1 Summary of the findings***

This multiple-case study aimed to explore how three Chinese novice scientists' verb knowledge developed quantitatively, using variation and sophistication as analytical indicators. Overall, it was found that the three participants exhibited various trajectories of verb variation and sophistication,

and the trajectories were socially constructed by their own vocabulary learning experiences. The results are consistent with the results of other vocabulary development studies (Zheng, 2010, 2012; Tan, 2006; Li and Schmitt, 2010).

## **6.2 Pedagogical implications**

The findings of the study shed light upon several pedagogical implications in regard to improving the participants' verb knowledge, which constitutes the major vocabulary required for academic writing. The first implication concerns improving the effectiveness of the academic writing courses, echoing Huang's (2010) suggestion that the future EAP curricula should be "carefully designed by both EAP practitioners and disciplinary professionals" (p.42) and so help to improve NNES novice science researchers' language proficiency by addressing the lack of disciplinary focus in the Chinese academic writing curriculum.

The second suggestion concerns the establishment of a corpus that can be freely accessed by novice scientists. It is suggested that the corpus-based approach to learning the vocabulary used for academic writing would be beneficial to both science graduates and novice researchers (Friginal, 2013). Learners can get access to a corpus, and identify the verbs in a professional corpus with the help of corpus tools under the instruction of EAP teachers. For instance, they can improve their use of reporting verbs by searching for the word *that* in the corpus and then observe which reporting verbs are used before *that*. Each example can be further examined using the *concordance* function. The convenience of operating a corpus tool allows novice science graduates and researchers to acquire new vocabulary unrestricted by classroom instruction, which would relieve their study load. This approach can provide a more efficient way to learn vocabulary by not relying solely upon EAP instructors, and this could be incorporated into and enrich self-study learning approaches.

Moreover, the *VocabProfile* software can be introduced to vocabulary instruction in academic writing course in order to give researchers a clear idea of verbs that are used with high-frequency or low-frequency. Explicit instruction is needed to change the perceptions of novice researchers that reliance upon simple vocabulary is enough. This is not only for the sake of making their writing more varied, but also to enable them to cope with challenges from the disciplinary community, such as the CrossCheck policy and pursuit of depth in one research area, which may place higher requirements on researchers' lexical choices.

### 6.3 Limitations and future research directions

Several limitations can be identified in the present study. To begin with, future research with more data sources may help us to further understand the participants' situated learning experiences within the Chinese EFL context. Although the present study collected both quantitative data in the form of written texts, and some qualitative data including semi-structured interviews and one vocabulary notebook from LS, a future research design might collect additional data sources. These can include syllabus of writing courses, and relevant documents on the English curriculum for Chinese postgraduates in order to provide rich information concerning the social contexts in which the participants' vocabulary learning is situated.

Secondly, a more refined approach is required for extracting lexical verbs in academic writing. The present study extracted 233 commonly used verbs in academic writing as listed in the *Academic Keyword List* developed by Paquot (2010). Although the list is comprehensive, some frequently used verbs such as *find* and *observe*, are not included. In view of this, the ratio of verb variation and sophistication might have been affected. Therefore, future research can adopt the *Constituent Likelihood Automatic Word-tagging System* (CLAWS) proposed by Paquot and Granger (2009) to search for all lexical verbs in a corpus.

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## Appendix A: The 233 lexical verbs in *Academic Keyword List* (Paquot, 2010)

accept, account (for), achieve, acquire, act, adapt, adopt, advance, advocate, affect, aid, aim, allocate, allow, alter, analyse, appear, apply, argue, arise, assert, assess, assign, associate, assist, assume, attain, attempt, attend, attribute, avoid, base, be, become, benefit, can, cause, characterise, choose, cite, claim, clarify, classify, coincide, combine, compare, compete, comprise, concentrate, concern, conclude, conduct, confine, conform, connect, consider, consist, constitute, construct, contain, contrast, contribute, control, convert, correspond, create, damage, deal, decline, define, demonstrate, depend, derive, describe, design, destroy, determine, develop, differ, differentiate, diminish, direct, discuss, display, distinguish, divide, dominate, effect, eliminate, emerge, emphasize, employ, enable, encounter, encourage, enhance, ensure, establish, evaluate, evolve, examine, exceed, exclude, exemplify, exist, expand, experience, explain, expose, express, extend, facilitate, fail, favour, finance, focus, follow, form, formulate, function, gain, generate, govern, highlight, identify, illustrate, imply, impose, improve, include, incorporate, increase, indicate, induce, influence, initiate, integrate, interpret, introduce, investigate, involve, isolate, label, lack, lead, limit, link, locate, maintain, may, measure, neglect, note, obtain, occur, operate, outline, overcome, participate, perceive, perform, permit, pose, possess, precede, predict, present, preserve, prevent, produce, promote, propose, prove, provide, publish, pursue, quote, receive, record, reduce, refer, reflect, regard, regulate, reinforce, reject, relate, rely, remain, remove, render, replace, report, represent, reproduce, require, resolve, respond, restrict, result, retain, reveal, seek, select, separate, should, show, solve, specify, state, stimulate, strengthen, stress, study, submit, suffer, suggest, summarise, supply, support, sustain, tackle, tend, term, transform, treat, undermine, undertake, use, vary, view, write, yield

## Appendix B: Interview guide with major questions

1. Can you describe your educational background?
2. Could you describe your first experience of writing science research articles in English?
3. How do you often improve your verb knowledge in academic writing?
4. Who helped you to improve vocabulary knowledge required for writing? In what ways?
5. Do you attend academic writing curricula provided by the university? Do you find it effective to expand your knowledge of vocabulary? Why or Why not?
6. Any factors that promote or hinder your improvement in vocabulary development in academic writing?
7. Any further comments you want to make about your vocabulary knowledge?

## Appendix C: Writing samples submitted to *VocabProfile* software for analysis

The following is an example that beyond-2000 score and TTR automatically generated by the VocabProfile software.

WEB VP OUTPUT FOR FILE: verb retrieval 2011ces.txt						
Words recategorized by user as 1k items (proper nouns etc): NONE (total 0 tokens)						
	Families	Types	Tokens	Percent		
<b>K1 Words (1-1000):</b>	23	23	35	70.00%		
Function:	...	...	()	(0.00%)		
Content:	...	...	(35)	(70.00%)		
> Anglo-Sax	...	...	(4)	(8.00%)		
=Not Greco-Lat/Fr Cog:	...	...				
<b>K2 Words (1001-2000):</b>	1	1	2	4.00%		
> Anglo-Sax:	...	...	()	(0.00%)		
1k+2k			...	(74.00%)		
<b>AWL Words (academic):</b>	11	11	13	26.00%		
> Anglo-Sax:	...	...	()	(0.00%)		
<b>Off-List Words:</b>	2			0.00%		
	35+?	35	50	100%		

Current profile	
%	Cumul.
70.00	70.00
4.00	74.00
26.00	100.00
0.00	100.00

Words in text (tokens):	50
Different words (types):	35
Type-token ratio:	0.70
Tokens per type:	1.43
Lex density (content words/total)	1.00

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<i>Pertaining to onlist only</i>	
Tokens:	50
Types:	35
Families:	35
Tokens per family:	1.43
Types per family:	1.00
Anglo-Sax Index:	8.00%
(A-Sax tokens + funcdors / onlist tokens)	
Greco-Lat/Fr-Cognate Index: (inverse of above)	92.00%



## Communication students' use of lexis in a writing examination

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### **Bio Data**

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### **Abstract**

It is generally accepted that grammatical competence is not a sufficient indicator of language competence, and lexis plays a significant role as well. In the case of students learning English for academic purposes (EAP), the significance of lexis becomes even more evident but also more challenging because of the increased number of words necessary for a successful academic life. Given their relatively limited exposure to academic contexts, this is likely to put freshman students in particular under heavy pressure. This may lead many to depend more on general word lists when they are required to productively use more specialized vocabulary. Students' limited productive knowledge of academic words may also be due to input materials with limited use of academic words. Given the significance of lexical competence for EAP students, in this current study I investigated 20 freshman engineering students' productive use of lexis with a particular focus on the Academic World Lists (AWL) by Coxhead (2000) during the 2013-2014 academic year. The open-book examination papers of the students in the Communication Department at the Petroleum Institute, Abu Dhabi, were compared to the corpus comprising two assigned texts as input materials. An online vocabulary profiler was used for analyses. Quantitative data analysis revealed that the input materials exhibited the qualities of a typical academic text suggested by Coady and Huckin (1997), with 81.9% General Service Lists (GSL) words and 12.6% AWL words. The students were

found to rely more on GSL words than academic words compared to the input materials; the difference for the latter being at a statistically significant level of  $p=0.001$ . Certain AWL words seemed to be used at a similar frequency level in both corpora. Qualitative data analysis showed that the students were less likely to use a variety of word forms, and faulty word formations were common in their work. They were also found to exhibit frequent mistakes with spelling, collocations and countable and uncountable nouns. Possible reasons for these mistakes are discussed, and suggestions are given on ways to promote EAP students' lexical competence.

**Keywords:** Lexical competence, academic word lists, academic writing.

## **Introduction**

The question of what it means to 'speak a foreign language' is commonly discussed in language teaching profession. The variations in approaches to language teaching have an impact on educational priorities and classroom practices. It is also true that educational priorities can have impacts on approaches to language teaching. There appears to be a general belief that learners' increased awareness of grammar structures in the target language enables them to communicate in a foreign language. However, there is also evidence that learners' communication skills can be further enhanced if their lexis is strong. Koda (2005) states that second language proficiency is linked to grammar and vocabulary. Therefore, students who have a range of language structures readily available for receptive and productive use can also be expected to be more successful in vocabulary learning by applying grammar rules to lexical items such as morphemes, accountability and spelling. Hunston, Francis and Manning (1997) support this by stating that bridging grammar and vocabulary is useful for language learners since "all words can be shown to have patterns, and words which have the same pattern tend to share aspects of meaning [and they] contribute to the teaching of both grammar and vocabulary" (p. 208). In addition, students who have attained higher grammar levels may choose to spend quality time mastering lexis to increase their flexibility and precision at a productive level. A high level of grammar and a strong lexical resource can therefore help them communicate more naturally and effectively.

It appears that grammar and lexis cannot be divorced from each other although there may be instances or stages where lexis could further promote grammatical competence or vice versa. Selivan (2011) suggests highlighting lexical items in context when practicing grammar allows for "a lexical way into the grammar of the language". It is important to note that research has shown that too much emphasis on grammar at the expense of lexis can be a barrier to overall development of students' linguistic competence (Folse, 2006; Nation, 2001).



## *Lexical Competence*

The attention to lexis as a part of linguistic competence has led to the idea of lexical competence, which is defined in the Common European Framework as “the knowledge of and ability to use the vocabulary of a language” (Council of Europe, 2001, p. 110). This definition suggests that learners’ knowledge of lexis at a recognition level is not enough; they need to be able to use lexis in appropriate ways. Appropriate use of lexis would require learners to consider different aspects of vocabulary items such as register and word forms. Ozturk (2003), on the other hand, states that lexical competence includes “what is known about words, how well words are known, how many words are known, and which words are known” (pp. 4-5). Ozturk (2003) explains that knowing the meaning of a word requires learners to know its conceptual meaning in addition to the other meanings (i.e. polysemy). Connotational meanings would also be necessary. Morphological and syntactic characteristics of words are also important. On the other hand, the depth of knowledge includes receptive and productive knowledge. Benjamin and Crow (2013) say that the former requires people to understand words when they hear or read them while the latter requires them to use them to express themselves in speech or in writing. When it comes to the size of vocabulary, a study by Hirsh and Nation (1992) showed that a vocabulary size of around 5,000 word families would provide adequate coverage for reading unsimplified short novels for pleasure. Adolphs and Schmitt (2004), on the other hand, say that learners need to learn at least 2,000 word forms to be able to understand between 90% and 94% of spoken English in different contexts. Finally, Ozturk (2003) says that the selectional account (i.e. which words) is related to “specifying the words ... that should be known at a particular point in the process of learning a language” (p. 9), which could be influenced by the frequency, coverage, range and availability of the words to be learned.

These dimensions of lexical competence can be a formidable challenge for foreign language learners, especially for novice ones. Considering the number of texts university students are required to read in order to acquire technical information and skills, the sheer volume of words to learn, various words forms, spelling and shades of meanings can be cognitively demanding. Some students may choose to attend to the substantive content of the texts at the expense of the quality of learning words. Seeing themselves as content experts only, some instructors may also avoid focusing on lexis, leaving the responsibility to learners themselves, which further increases gaps in students’ lexicon and leads some students to consult translated versions of assigned texts. These problems can be aggravated in the absence of a sound vocabulary syllabus and a principled vocabulary teaching methodology.

There are two main approaches to vocabulary teaching and learning: Explicit instruction and incidental learning. The former “involves diagnosing the words learners need to know, presenting words for the first time, elaborating word knowledge, and developing fluency with known words” (Hunt & Beglar, 2002, p. 258). Nation (2001) says that explicit instruction saves time, provides students with opportunities to focus on particular word environments and secures learning through exercises. Nagy and Herman (1987) state that the students who are taught a certain number of words at a time using explicit approach find it easier to construct meaning. On the other hand, incidental learning takes place when “the mind is focused elsewhere, i.e. learning without conscious attention or awareness, such as on understanding a text ” (Shakouri, Mahdavi, Mousavi & Pourteghali, 2014, p. 523), therefore the words individuals learn are by-products of language use. According to this approach, exposure to language through reading in particular, is the most favorable way to learn lexis since the sheer volume of words to learn is far too large to teach students (Hollingsworth & Ybarra, 2013). There are also arguments in favor of combining these two approaches. For instance, Schmitt (2000) underlines the importance of “the proper mix of explicit teaching and activities from which incidental learning can occur” (p. 145). Hunt and Beglar (2002) suggest that a combination of these approaches needs to make sure that students are furnished with skills of guessing meanings of words from contexts, which in turn promotes independent learning.

### *Vocabulary Lists*

Learners cannot be expected to acquire lexis unsystematically. They need guidance as to which words they are supposed to learn, and what order they need to follow. Such a requirement was acknowledged long ago and gave way to the production of certain frequency lists. It is argued that “learning more frequent words before less frequent ones is...more useful since this gives quick access to textual meaning and also provides the basic means to self-expression” (Ozturk, 2003, p. 9.). This led West (1953) to create the General Service List (GSL) based on the most frequent 2,000 headwords, and suggested that knowledge of these words would enable learners of English as a foreign language to comprehend around 90% of general English. More recently, Brezina and Gablasova (2013) updated the GSL using 12 billion running words in four separate language corpora (*LOB*, *BNC*, *BE06*, and *EnTenTen12*). They came up with the new-GSL consisting of 2,494 words that cover between 80.1% and 81.7% of their corpora. Another version of GSL has been produced by Browne (2013) who identified 2,800 frequently used words among a sample of 273 million running words in the Cambridge English Corpus. This study increased West’s (1953) GSL coverage to 90%. Taken together, these lists provide valuable guidance for learners of general English in terms of what words to learn and the order in which they should do it.

Although students who learn English for academic purposes (EAP) need to master GSL words, they are also required to study academic words to comprehend academic text books, follow lectures, and write academic essays. In order to assist EAP students in acquiring lexis necessary for academic success at university, there have been two important initiatives: The University Word List (UWL) by Xue and Nation (1984) and the Academic Word Lists (AWL) by Coxhead (2000). UWL consists of 808 words that are divided into 11 levels. It is estimated that these words account for 8% of the words in a typical academic text (Nation, 1990). On the other hand, Coxhead identified 570 headwords for AWL that frequently appeared in an academic corpus of texts from Science, Arts, Commerce and Law. The headwords in AWL are divided into 10 sublists, with sublist 1 containing the most frequent words and sublist 10 containing the least frequent ones. Coady and Huckin (1997) state that 87% of the words in a typical academic text would come from the top 2,000 high-frequency words while 8% would be academic words. Taken together, they would account for 95% of a text, which clearly indicates the significance of GWL, AWL and UWL for EAP students. It should also be noted that EAP students need to learn topic-specific lexis as well depending on their academic fields. These highlight the importance of having a lexical syllabus in language preparatory programmes as well as in content specific courses. The syllabus that is adopted needs to mirror the lexis in texts the students are required to read and assignments they are to do. Only in this way can they be furnished with the essential lexicon and increase their understanding of the assigned texts. This in turn would reduce the tension students may suffer from, and build their self-confidence. As a result, they would be discouraged from resorting to translated versions of assigned texts or depending on peers that have better understanding of the content matter.

### *Setting of the Study*

The Petroleum Institute (PI) in Abu Dhabi, where the medium of instruction is English, educates engineers in various fields. The students wishing to study at PI are placed in the Academic Bridge Program (ABP), a foundation program, for one year to learn English for their academic studies. At the end of their studies, they are administered an institutional version of the Test of English as a Foreign Language (TOEFL) from which they need to produce a total score of at least 500. Alternatively, they can also take the International English Language Testing System (IELTS) and produce an overall score of at least 6. The required minimum score for the expatriate students, on the other hand, is higher, 550 from TOEFL and 6.5 from IELTS.

In general, both local and expatriate students opt for the institutional paper-based TOEFL test. However, they are exempt from the writing and speaking sections of the test. As a result, the

students are encouraged to pay more attention to receptive language skills such as listening and reading.

### *Communication 151 Course*

Upon obtaining a sufficient TOEFL or IELTS score, students are admitted to Arts and Sciences Program where they have to take further language support classes offered by the Communication Department. There are two compulsory communication courses (COMM 101 and COMM 151), both of which are based on project-based learning (PBL). COMM 151, for which COMM 101 is a prerequisite, teaches students to apply critical thinking and problem solving skills through team and individual assignments. Students' academic literacy skills are developed as a result of their engagement in project work and seminars based on communication topics such as effective listening, inter and intrapersonal communication, small group communication, and cross-cultural communication. The instructors assign students specific seminar texts and ask them to find an additional text of their own choice for each seminar topic. The seminar texts aim at furnishing students with basic communication knowledge and skills they would need to communicate effectively as university students and future engineers. The students are required to annotate the texts to prepare for in-class discussions. They are not provided with explicit vocabulary instruction designed for the seminar texts. Instead, acquisition and practice of relevant lexis is generally left at students' discretion with an incidental learning approach. After each seminar, the students are administered an open-book exam. They are required to use their academic literacy and reflective thinking skills in their responses to the examination questions.

### *Statement of the Problem*

There is a general feeling among the faculty in the Communication Department that students' lexical competence is limited. This becomes particularly evident when they perform writing tasks. Similar concerns are also expressed by faculty teaching other content specific courses. Coupled with their limited skills of grammar knowledge at the productive level, these students tend to be judged as incompetent writers despite the fact that their proficiency examination results from TOEFL or IELTS meet the required standards. This gave the current study the impetus to investigate Communication 151 students' use of lexis, with a particular attention to AWL words. With this general aim in mind, the following research questions were asked.

1. What is the lexical profile of the intra and interpersonal communication seminar texts the Communication 151 students are assigned? And how does it compare with the corpus derived from the students' examination papers on this seminar topic?
2. What challenges do students face using AWL words in their essays?

The response to the initial part of the first research question is hoped to identify the lexical items required for a fuller understanding of the assigned texts while the second part aims at describing the kind of lexis the students appear to utilize in their responses to the tasks in the examination. On the other hand, the second question aims at identifying the difficulties the students tend to suffer from. Taken together, the responses to the research questions are hoped to increase the students' and COMM 151 instructors' awareness of lexical items used in the assigned seminar texts in order to help enhance the students' lexical competence.

### *The Focus and the Design of the Study*

In this initial small-scale exploratory study, I adopted a descriptive research design with the aim of investigating the students' use of lexis, with particular attention to AWL words, as a part of their academic literacy skills. To this end, the research focused on one particular individual writing examination which required the students to use their synthesis skills by evaluating ideas from two seminar texts: one on interpersonal communication and another one on intrapersonal communication. The former, an adapted text from Beck, Bennett and Wall (2004) and King (n.d.), defines interpersonal communication and explains its principles and functions. On the other hand, the latter, an internally compiled text from Dimpleby and Burton (1992), Maslow (1984) and Schultz (1966), is about the need for intrapersonal communication, and exemplifies different types of intrapersonal activities. Having annotated both texts, the students participated in the seminar by discussing their understanding of the concepts in the texts and how they relate to their own experiences as university students and individual members of their living communities at large. Prior to this, the students had experienced two other seminars and examinations of similar nature. I believe the students' previous experience of academic writing of similar nature had prepared the students for the current study. However, in order to prevent them from adapting their responses purposefully, I did not inform the students that they were a part of a study.

A total number of 20 male students during the 2013-2014 academic year participated in the study. Eighteen of the students (90%) were Emirati while one student was from Jordan, and another one

was from Palestine. Nineteen of the students had TOEFL scores ranging from 501 to 557 with a mean score of 520. Only one student had a score of 7 from IELTS.

In order to analyze the students' papers electronically, I converted the handwritten examination papers into an electronic format. When transcribing the papers, the spelling mistakes were ignored with the belief that "the assessment of a learner's ability to understand and reproduce a word in writing should be separated from the assessment of the accuracy of reproduction" (Jukneviene, 2007). However, during qualitative data analyses particular features of lexis in the student papers such as countable versus uncountable nouns, spelling and collocations were considered. Also, the cases of spelling errors that led to confusion in meaning were taken into consideration. For this purpose, I analyzed the handwritten student papers in order to identify any difficulties the students faced.

The corpus that consisted of the assigned seminar texts on (Corpus 1) included 2,403 running-words (see appendix A for sample lexical items from the profiler). On the other hand, the student corpus (Corpus 2) included 6,517 words. (See appendix B for sample words from the profiler).

I analyzed both corpora using a program for vocabulary profiler available on open source at <http://www4.caes.hku.hk/vocabulary/profile.htm>. This program analyzes the corpus and presents data on how many word types it contains from the GSL by West (1953), AWL by Coxhead (2000) and UWL by Xue and Nation (1984). It also shows the words that do not belong to any of these categories under the heading 'off-list words'. Another advantage of this tool is that 'it is user-friendly and offers multiple functions such as concordancing' (Deveci & Simpson, 2013, p. 78), which helps researchers conduct qualitative analyses. I compared Corpus 2 against Corpus 1 with the belief that comparing a student corpus with competent writers' corpus can be informative regarding the difficulties foreign language learners may be experiencing, and it can help identify "instances of learners' under-or over-use of ... vocabulary" (Shirato & Stapleton, 2007, p. 393). In order to determine whether or not there were differences between the two corpora at a statistically significant level, a Pearson's chi-squared test was conducted. A p-value at 0.05 was considered in determining statistically significant differences.

## **Results and Discussion**

The first research question aimed at identifying the lexical profile of the texts used for Corpus 1, and how it compared to the student corpus (Corpus 2). The results of data analyses in response to this question can be seen in Table 1 below.

**Table 1: Vocabulary Profiler Results for Corpus 1 and Corpus 2**

Word Lists	Corpus 1 (Assigned Texts)		Corpus 2 (Student Essays)		$\chi^2$
	f	%	f	%	
The General Service List (GSL)– 1-1000 Words	1,854	77.15	5,096	79.2	0.167
The General Service List (GSL)- 1001-2000 Words	114	4.75	278	4.4	
The Academic Word Lists (AWL) words	303	12.6	634	9.8	0.001
The University Word List (UWL) words	0	0	0	0	-
Off-list words	132	5.5	424	6.6	0.167
Total	2,403	100	6,517	100	

Table 1 shows that 81.9% of the lexical items in Corpus 1 can be found in GSL, 77.15% of which belonged to the top 1,000 high-frequency words. On the other hand, 12.6% of the lexical items in the corpus belonged to AWL. (See appendix C for sample AWL items). Taken together, these numbers with a total percentage of 94.5 suggest that the seminar texts exhibited the characteristics of a typical academic text, as suggested by Coady and Huckin (1997). It may be expected that the students who had no difficulty understanding the texts in Corpus 1 might be able to use certain numbers of GSL and AWL words in their responses to the essay question.

Table 1 also shows that 83.6% of the words in the student corpus belonged to the top 2,000 high-frequency words, which was slightly less (3.4%) than Coady and Huckin's (1997) expectations. However, the percentage of academic words in the student corpus (9.8%) was higher than Coady and Huckin's (1997) expectations of word coverage of a typical academic text. (See appendix D for sample AWL items). Taken together, it seems that the students' examination papers tended to have the qualities of a typical academic text regarding the frequencies of the words used. However, when the two corpora are compared considering the total number of words in each, Corpus 2 may be expected to have higher numbers of words in each category. For example, the number of words in GSL (1,968) out of the total number of 2,403 in Corpus 1 could be expected to increase to approximately 5,337 words accounting for 81.9% of a 6,517-word corpus, and the analysis of the student corpus revealed a total number of 5,374 GSL words used, representing 83.6%. Similarly, the expected increase in the number of off-list words would be 226 words for a 6,517-word corpus, while the actual number of off-list words produced exceeded this by 1.1%. The statistical analysis of the two corpora showed that the data on the GSL and off-list words did not differ at statistically

significant level ( $p=0.167$ ), suggesting that the number of words in these two categories produced by the students and expert authors were on a par. However, 303 AWL words (12.6%) out of a total number of 2,403 words in Corpus 1 might be expected to increase to approximately 822 words (12.6%) out of a total number of 6,517 words in the student corpus, which is 2.8% less than the actual number of AWL words produced by the students (634). The result of the statistical analysis conducted to determine whether the difference between the number of AWL words in Corpus 1 and Corpus 2 was at a statistically significant level was affirmative ( $p=0.001$ ). This shows that the students tended to use fewer AWL words compared to the experienced authors. Taken together, these data seem to suggest that the students relied more on GSL and off-list words, and less on AWL words in their responses.

I also analyzed the data with a particular focus on the AWL headwords used in the corpora in order to determine the headword densities and compare the types of words used. Data analysis regarding this can be seen in Table 2 below.

**Table 2: Comparison of AWL Density in the Corpora**

	Corpus 1		Corpus 2	
	f	%	f	%
Word count	2,403	100	6,517	100
Headwords used only in this corpus	53	2.21	54	0.83
Headwords common in both corpora	58	2.41	58	0.89
Total	111	4.62	112	1.72

Table 2 clearly shows that the headwords in Corpus 1 outnumbered those in the student corpus by 2.9%. This can be considered as another indication of the students' tendency to limit their use of academic words, and to opt for more GSL words. Table 2 also shows that 53 of the AWL headwords in Corpus 1 did not appear in the student corpus, despite the fact that the students were found to have used a certain number of AWL words (54) that did not appear in Corpus 1. Although this does indicate the students' potential knowledge of AWL words, it also shows that students did not make full use of AWL words which were readily available to them in context. A possible explanation for the occurrence of the additional AWL words in Corpus 2 may be the nature of the examination allowing the students to use words from additional texts of their own choice, which were not included in the corpora for this study.

The second research question aimed at identifying how the students used frequent AWL words, and the kinds of challenges they faced. This was done with the belief that it may be limiting to consider



word frequencies per se although it can indicate a certain trend. Therefore, I analyzed the student corpus to identify strengths and any indicators of lack of lexical competence. For this purpose, I conducted further frequency and concordance analyses into the academic words used by the students, and made comparisons between the two corpora. The results of frequency analyses can be seen in appendix C and D. Since a discussion of each and every word in the corpora is beyond the scope of this article, comparatively more significant findings will be highlighted below.

The most common AWL words in both corpora were the word '*communication*' and its derivations. The concordance analysis showed that most students tended to use the word '*communication*' with its collocating words '*interpersonal*' and '*intrapersonal*'. Note that considering the central themes of the assigned texts and the examination question, the students had been expected to use this word quite frequently. Some examples of the use of the word by the students can be seen below:

1. Intrapersonal **communication** is related to interpersonal **communication** because when interpersonal **communication** happens people must go through intrapersonal **communication** to react with that person.

2. ...interpersonal **communication** could be called our inner monologue when we sit down to think of ways to solve a problem.

3. Skills can be developed by sharing information or knowledge between people by using the interpersonal **communication**.

The second most commonly used AWL word in the student corpus was '*define*'. The reason for the students' tendency to use this word frequently may be their belief in the necessity of defining relevant terms before delving into any kind of synthesis work. In academic writing it is important to define the terms and concepts in order to establish a common understanding between authors and their audience, which helps avoid misunderstandings (Pepper & Driscoll, 2010). The analysis of the student corpus showed that the students chose to define the two terms (*intrapersonal* and *interpersonal communication*) utilizing an explicit use of the word '*define*', as in the examples below.

4. ...they **define** interpersonal communication by saying it is a process of exchanging information through some systems like speaking, writing, face to face conversations and other methods.

5. Intrapersonal communication is **defined** as communication within the self ...

The word '*define*', however, appeared only once in Corpus 1 in introducing the definition of the intrapersonal communication. The author of the text on interpersonal communication, on the other hand, chose to use the verb '*be*' to define the term '*interpersonal communication*':

6. "**Interpersonal Communication** is the process of exchanging information, usually through use of a common system of symbols."

It is important to note that none of the students chose to define terms in this way.

The second most commonly used word in Corpus 1, was '*context*', which appeared 12 times, and its adjective form '*contextual*' twice, together accounting for 1.3% of the total number of 303 AWL words in the corpus. Some examples of their use can be seen below:

7. We also engage in interpersonal communication to help us better understand what someone says in a given **context**.

8. Environmental **context** deals with the physical "where" you are communicating.

9. Interpersonal communication is **contextual**. In other words, communication does not happen in isolation.

This word did not appear to be popular with students. It was the ninth most commonly used word with a percentage of 0.66 out of 634 AWL words in Corpus 2. It was only used four times by a single student, who in fact avoided the adjective form of the word. An example of how this student used the word can be seen in the excerpt below.

10. ...he will practice intrapersonal communication with himself to create a suitable image for the new **context** that me moved to.

The third most commonly used AWL word in both corpora was '*image*', although it appeared more commonly in Corpus 1 (0.5% vs. 0.19%). Similarly, the third most commonly used word in Corpus 1 was '*interact*' (0.5%), which appeared less frequently in the student corpus (0.1%). It is important to note that the derivatives of this word (*interaction*, *interactively*) appeared only in Corpus 1. Although the frequency of the verb form in Corpus 2 gives indications of students' understanding of the importance of this word in the given context, their limitation to the verb form only may be regarded as an indication of their lack of lexical dexterity. The analysis showed that derivatives of AWL headwords were generally more common in Corpus 1. Other examples included: *context*, *contextual*; *achieve*, *achievement*; *motivate*, *motivation*, *motivator*; *individual*, *individualistic*;

*function, functional; construct, construction; react, reaction; theory, theorist*. On the other hand, the students' use of derivatives was more limited: *communicate, communication, communicative; define, definition; motivate, motivation; involve, involvement*. Some students were also found to have used adjective and adverb forms of AWL words less frequently. This finding was echoed in some previous research (Schmitt & Zimmerman, 2002). Overall, the students appeared to be less flexible in their use of different word forms, which limited their lexical competence. This also lends credence to the view that a learner who knows one member of a word family should not necessarily be expected to learn the other members easily or use them productively (Schmitt & Zimmerman, 2002).

Another noteworthy finding was related to the popularity of the word '*motivate*'. In both corpora, it was the fourth most commonly used word although it accounted for a higher percentage of the AWL words in Corpus 1 compared to the student corpus (2.64% vs. 1.58%). Also, the students used only two word forms (*motivate* & *motivation*) whereas Corpus 1 also included the additional noun form '*motivator*', which can be regarded as an indication of a competent writers' flexible use of lexis:

11. The great **motivator** in such cultures is the achievement of a sense of freedom.

The analysis of the student corpus with the aim of identifying deviations from the correct use of AWL words revealed that the students faced four main challenges: word forms, spelling, collocations and countable versus uncountable nouns.

Word forms appeared to be challenging to some students although the meanings they tried to express did not seem to be disrupted in general when the words were used. Some common examples included the words '*conclude*' instead of '*conclusion*' as in "My **conclude** is that intrapersonal communication is more basic."; '*environment*' instead of '*environmental*' as in "These **environment** factors affect communication styles"; and '*negative*' instead of '*negatively*' as in "We can be affected by this **negative**.". There were also instances of faulty word forms: "Our understanding can be **impactful**"; and "...may not always be **inbeneficial** when we need to communicate with others." Considering the students' limited use of different word forms discussed above, these wrong uses of word forms may further indicate the students' lack of lexical competence at a productive level.

Spelling of certain AWL words also appeared to be challenging for some students. Among the commonly misspelt words were '*communicative*', '*culturel*', '*imege*' and '*finaly*'. Also, the words

'*occure*', '*contexte*', and '*modefiy*' show instances of an extravowel insertion. In regards to extravowel insertion, Bowen (2011) points out that Emirati students have a tendency to add an extra vowel sound to certain words such as '*partaner*', and further explains that epenthesis, an attempt to make pronunciation of words easier, could be a reason for this. In this current study, some students were also found to have omitted the vowel 'e' in '*creat*' and '*collagues*', which exemplifies their tendency to omit certain letters. It is also important to note that some GSL words were spelt wrongly too. For example, 'e' was dropped in '*belive*', and '*recive*'. Again, Bowen (2011) found relatively frequent omission of vowels in her data of Emirati students' writing, which she attributes to students' tendency to omit weak or silent vowels or "the transfer of Arabic nonvowelisation patterns" (p. 92). Coupled with the misspelt AWL words, the wrong use of these GSL words seemed to cause strains for readers, and therefore limit the students' lexical competence. Ryan (1997) suggests that one reason for Arab students' spelling mistakes might be their exposure to magazines and newspapers that do not encode short vowels. This may encourage them to focus on the consonant sounds and make spelling mistakes. Bowen (2011) also points out that the absence of written vowels in Arabic text can lead students to guess words in English inaccurately. Saigh and Schmitt (2012) support this with data in their research suggesting that Arabic learners of English as a second language tend to process English short and long vowels in a similar way to Arabic.

The students' limited knowledge of collocational uses of AWL words was also noticeable. The most frequent mistake was the wrong use of prepositions, examples of which included '*aware on*', '*involve with*', '*communicate to*' and '*on contrary*'. On the other hand, other examples showed redundant preposition use: '*undergoing through*', '*affect on*' and '*initiate with*'. Some instances of wrong use of the verb 'make' with certain AWL were also detected as in '*make research*', '*make conflict*' and '*make a goal*'. Similar mistakes were made with '*shape an attitude*' and '*strong interaction*'. One reason for the first mistake may be the students' lack of knowledge regarding subtle differences in meaning when paraphrasing what they read. The latter, however, seems to be due to the students' faulty transfer of lexis from a physics class.

The fourth category of learner mistakes was related to the (un)countable nouns. Some students had challenges using indefinite articles 'a/an' and plural suffix 's' with certain words, as in the following examples: '*a research*', '*an intrapersonal communication*', '*a motivation*' and '*informations*'. These mistakes may stem from interference from students' mother tongue (L1), Arabic, where the distinction between countable and uncountable nouns may not always be clear-cut. The problem seems to be intensified by the students' lack of understanding regarding whether or not these nouns were countable in English. Their restricted knowledge of grammatical

surroundings of these AWL words appears to limit their knowledge of the words. Ozturk (2003) emphasizes that lexical competence would require students to know words well, which requires grammatical knowledge. Bataineh (2005) also argues that “given the fact that [articles] are among the most frequent words in English, it is of the utmost significance that university students have ... control of their usage” (p. 58).

## **Conclusion and Recommendations**

Competent writers’ use of advanced language structures makes their written work sophisticated. However, a skillful use of lexis is also essential to write papers of high quality. This is why lexical competence has attracted a lot of attention among foreign language instructors and researchers (Velasco, 2007; Zareva, Schwanenflugel, & Nikolova, 2005; Marconi, 1997). University students who write in English for academic purposes (EAP) are also expected to exhibit a good level of lexical competence in addition to grammatical competence. However, I believe satisfactory proficiency examination results may not always be reliable indicators of EAP students’ effective use of lexis at a productive level.

Given this importance of lexis for EAP students, this study aimed at identifying the vocabulary profile of a set of reading texts assigned to students advancing language skills for academic purposes, and the extent to which they were able to use AWL, GSL and UWL words. The research also investigated the challenges the students faced using these words at a productive level. Regarding the profile of the corpus that included the assigned texts (Corpus 1), the corpus was found to have exhibited the characteristics of a typical academic text with 81.9% GSL words, 12.6% AWL words and 5.5% topic-specific words. The analysis of the student essays (Corpus 2), on the other hand, showed that the students tended to rely more on GSL words, with fewer AWL words compared to Corpus 1. However, they were also found to make use of other AWL words which did not appear in Corpus 1. I interpret this as their potential knowledge of AWL words, which could be further promoted.

Further, the qualitative analysis of the two corpora revealed that the students were less likely to use a variety of word forms compared to the competent writers of the texts in Corpus 1. Some students also showed inaccurate use of word forms and faulty word form construction. In addition, spelling mistakes commonly occurred. The qualitative analysis also showed that the students had difficulty in using correct collocations with some of the AWL words in particular. Lastly, there were instances of grammatical inaccuracies attached to lexical items. The most common mistake was

related to (un)countable nouns. These mistakes appeared to restrict students' lexical competence and reduced their overall linguistic abilities.

The findings of this current study suggest that it is necessary to monitor their productive use of GSL, UWL and AWL words supported by field-specific lexis. I feel, however, that students cannot always be expected to pay attention to lexis readily, especially after obtaining a 'satisfactory' result from an English proficiency exam such as TOEFL. Therefore, both language instructors and instructors of content classes need to focus on the lexical items in the texts or course-books they teach. This is particularly important since foreign language learners, those studying at a university in particular, tend to acquire GSL, AWL and specialist lexis mainly from the texts they read. Therefore, it is important to provide university students with quality exposure to such items. However, as also seen in the results of this current study, exposure to lexis per se will not be sufficient. Certain scaffolding is necessary in order to increase awareness of effective use of target vocabulary. To this end, the lexis in students' written outputs should also be investigated by focusing on meaning and form. The initial stages of such an approach to teaching can be challenging for both instructors and students. However, constant practice will train students to assume greater responsibility, and learning and practicing lexis will become a habitual act in time.

In order to support EAP students' development of lexical competence several actions can be taken. Regarding awareness-raising, students can be shown how to run a vocabulary profiler. For this purpose, <http://www4.caes.hku.hk/vocabulary/profile.htm> can be used. Students can simply copy and paste soft-copies of assigned texts in the program to see word frequencies and word list profiles. They can do the same with their own written outputs, by comparing frequencies and profiles of their own lexis to the assigned texts. This would raise their awareness of lexical varieties, with a particular attention to AWL words.

Another program at <http://www.nottingham.ac.uk/alzsh3/acvocab/awlgapmaker.htm> can help create gap-fill exercises using AWL. Instructors may copy and paste texts into a box provided and choose the AWL sublist(s) they wish to use. The program creates a gap-fill exercise at the level(s) selected.

Students would also benefit from having their awareness raised in terms of collocational environments of academic words in particular. For this purpose, instructors can prepare concordance lines with missing collocating words, and ask students to scan the text to identify what words would best complete the blanks. For instance, the missing word in the sentence 'Communication for the purpose of \_\_\_\_\_ interpersonal goals' would be 'achieving'. Some

more discussion regarding what other words might collocate with ‘goal’ such as ‘meet’ would contribute to students’ lexical dexterity.

In order to encourage students to use more AWL words, students can be asked to paraphrase certain sections of a text. Providing them with particular AWL words to use in their paraphrases would require them to utilize more AWL words rather than heavily rely on GSL words.

Students can be assisted to reduce typical spelling problems with AWL words through error-correction exercises. Students may not be fully aware that they are making mistakes and therefore would benefit from having their attention drawn to the words they often misspell. To this end, Stirling (2003) suggests asking students to keep a spelling log they refer to when they write these words again. Bowen (2011), on the other hand, warns that we need to avoid relying too heavily on spelling rules of low-frequency words and shift our attention to teaching more common and simple patterns as well as silent vowels. Bowen (2011) further suggests that asking students to read out their own mistakes can reveal possible reasons for any misspelt words.

Student mistakes with countable and uncountable nouns may be caused by a possible lack of understanding of abstract and concrete nouns. Academic writers tend to use abstract nouns frequently to focus on ideas and concepts (Osmond, 2013), because they can apply to other situations as well (Schleppegrell, 2004). Therefore, students writing for academic purposes need to develop their use of abstract nouns. Students can be helped by drawing their attention to abstract nouns in assigned texts such as research, information and communication. Concordance lines can be used to group each word for detailed analyses. For instance, the concordance lines for ‘information’ from Corpus 1 below show that it is never used in plural form, therefore one can deduce that it is highly likely to be an abstract noun which is not preceded by the definite article a/an, or is not made into plural. The same lines also clearly show that the most common verb that goes with this word is ‘gain’, which appears 4 times out of 7.

the process of exchanging	information.	usually through use of a com
other person, we seek to gain	information	about them. We also give
says that we attempt to gain	information	about others so that we can i
nd nonverbal cues. Gaining	information	One reason we engage in int
closure is often used to get	information	from another person Buildi
about them. We also give off	information	through a wide variety of ver
ow who they are. We gain this	information	passively, by observing them;

Concordance lines can also highlight other grammatical rules related to the use of abstract nouns. For instance, the concordance lines below, taken from a web concordancer at

<http://vlc.polyu.edu.hk/> indicate that among the quantifiers that can precede ‘*information*’ are ‘*all*’, ‘*much*’, ‘*a lot of*’, ‘*further*’, ‘*two pieces of*’, and ‘*enough*’. Students can also be asked to notice the absence of the plural ‘s’ with ‘*information*’ although these quantifiers denote plurality. However, it should be noted that concordance lines in general are only indicative, but not deterministic. That is, they do not suggest that they provide only the correct wording sequences. Therefore, students need to be encouraged to look at target words in wider contexts too.

properly weighed all the information and balanced the risks my son faced?"  
 which covers all official information and provides for penalties for the mere  
 d to provide much information.  
 we have already put out a lot of information. However, the way we put out  
 expecting him to seek further information. Meanwhile, the Secretary for  
 two pieces of information. The Summary Report, which was for 38  
 had been given enough information to be satisfied as to the actual extent

## **Limitations**

The first limitation of this study stemmed from the relatively small size of the corpora used. Therefore, the results can be considered indicative but cannot be generalized. Another limitation was due to the exclusion of the texts chosen by the students when responding to the examination question. It is a fact that including these texts in Corpus 1 would offer more indications regarding the students’ choice of lexical items in their responses. Also, the analyses were limited to the most frequently occurring lexical items, with a heavier focus on AWL words. This was limiting since a detailed analysis of all the words in the others lists could have also provided greater understanding of the students’ lexical competence.

## **Future Research**

Future researchers could consider the effects of text types on students’ production of AWL words. This is because students may be expected to vary their lexical density according to the genre. Engineering students, for example, might use slightly more AWL and off-topic words if they were to write more technical reports. The effects of explicit vocabulary teaching on students’ productive use of lexis can also be studied. For this purpose, longitudinal studies can be more preferable. The effects of students’ background (nationality, the type of high school attended and gender) on their productive use of lexis could also be investigated. Finally, collocational characteristics of most frequently occurring AWL, UWL and GSL words in course-books and assigned texts can be investigated to reinforce students’ receptive and productive use of lexis in more sophisticated ways.



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## Appendix A

### Sample Headwords from Corpus 1

Word Lists	Sample Headwords
The General Service List (GSL)– 1-1000 Words	able, acceptance, addressed, allow, attempt, based, basic, beautiful, become, believe, certain, change, clear, common, complete, concern, conditions, consider, content, continuous, control, deal, describe, desires, destruction, develop, differ, disregard, divided, each, events, example, exchanging, experiences, express, fact, follow, force, form, freedom, friends, important, includes, independence, influenced, join, judge, kind, lawyer, likely, nature, observers, order, particular, place, plan, present, private, proposes, prove, provide, public, purpose, rather, receive, recognized, regarded, relations, remain, remember, resulting, rules, safety, season, share, , simple, situation, social, society, speech, stage, stand, state, still, study, succeed, success, suggests, system, take, term, though, unable, under, understand, unlikely, view, voice, wide, worth
The General Service List (GSL)- 1001-2000 Words	alike, anger, argument, attractive, avoid, behave, brain, checking, clever, comparable, complicated, composition, confidence, consciously, conversation, excellent, extremely, guilt, harm, hatred, information, intent, message, noise, pain, performance, permanent, politeness, prize, refer, reflect, remind, requests, restaurant, satisfaction, satisfying, signals, skills, temperature, tomorrow, tool, unconsciously, witness
The Academic Word Lists (AWL) words	accurate, achieve, affect, analysis, apparent, approach, aspects, assigned, attitude, attributes, awareness, category, channels, communicate, complex, concept, conflict, considerably, constant, construct, contact, context, cooperation, create, crucial, culture, defined, demonstrate, despite, distorted, dynamic, elements, environmental, establish, evaluation, exclusive, external, factors, features, finally, flexible, functions, generate, global, goals, hierarchy, identified, identity, ignore, illustrates, image, impact, individual, inevitably, inherent, initiate, instructions, intelligence, interact, internal, interpret, involve, irreversible, isolation, labels, linked, location, logic, major, motivate, networks, notion, objective, occur, participants, passively, perspectives, physical, potential, predict, principle, process, psychological, qualitative, react, require, research, respond, role, seek, shifting, significant, specific, strategic, sufficiently, survival, symbols, task, temporary, tension, theory, underlie, undertake, variables
The University Word List (UWL) words	N/A
Off-list words	actualization, affection, aroused, cheek, cognition, condemnation, decoding, dialogue, disclosure, eccentric, emotional, emotionally, engage, facial, fulfillment, geared, gesture, harmony, huge, humorously, impression, indulge, inescapable, intellectual, intrapersonal, jury, maxims, misunderstanding, motivator, nonverbal, outlets, penetration, personality, physiological, posture, presentations, proverb, relational, simultaneously, situational, static, stimulate, subdued, synonymous, tone, traits, trustworthiness, unsatisfied, verbal, workings

## Appendix B

### Sample Headwords from Corpus 2

Word Lists	Sample Headwords
The General Service List (GSL)– 1-1000 Words	ability acceptance according act addition agreed all allows almost alone also always another answer any appearance apply appointment article as associated based basically basis because before begins behind being beliefs belongs beside better between big body both build call came care cases center certain change choose clear common complete concerned

	considered contains control country course cover date day deal decision deep demands depend describe detail determines develop difference difficult direct dislikes divided draw dreams drive due each easier effect either far father feel food for forced form freely friend future gain general get give go good group hand hanging happen happier hard head hear help high human idea if importance include influence inner introduced judge keep kind know language lead learning least left less let levels life light like main make man many matter mean meets member memorize mention mind minutes moment more most moved much must my nature need new notes notice of old on once one only open opinion order question raised says school scientific speaker stand start state still stopped strong study subject such suggests supports surrounding system take teacher term than the their there therefore think what when where while who words work world would write wrong year
The General Service List (GSL)- 1001-2000 Words	aimed angry argument artificial attractive audience avoid behave brain broadcasting composition confidence connection conscious convenient during encourage essentially inside intent list lot loud mail message mistakes multiple nice opposite parents perform polite practical practice quiet rarely referring refers reflect repeating restaurant rude satisfy searching shop signals skill skills solve suitable sympathetic tend tomorrow treating
The Academic Word Lists (AWL) words	achieve affect analysis appropriate aspect assumptions attitudes author benefit brief colleagues communicate communicative community complex comprising concept conclude conclusion conflict conflicts constant contact context contribute core create crucial data define distinctions element enable environment establish evaluate external factor final functional functions goal hence identified identity image individual initiate instance instructor intelligence interact internal interpret involve journal link maintain major modifying negative normal occur oriented period perspective phase positive preceded predict principle proceed process psychological react reaction rely requiring research resolution respond reverse role roles section seek significant similar somewhat stress styles sum sustainable symbols text topic transfer transmitted trigger undergoing undertaken utilize whereas
The University Word List (UWL) words	N/A
Off-list words	affection appealing bounce categorize catharsis chat cognition dialogue dumb emotional engage essay esteem fantasies feedback fosters gestures imaging inescapable inter interpersonal interring intra mall mathematical monologue multidisciplinary negligible personality phrase physiological practicing receivers relational seminar situational smart sophisticated verbal vital

## Appendix C.

### AWL Frequency Analysis Results of Corpus 1

AWL WORDS	f
communicate (communication, communicative)	66
context (contextual)	14
image, interact (interaction, interactively)	9
motivate, (motivation, motivator)	8
culture	7
establish, identity, physical	6
achieve (achievement), construct (construction), individual, (individualistic), psychological (psycho), role	5

awareness, concept, external, notion, principle, react (reactions)	4
category, contact, elements, functions (functional), internal, interpret, involve, process, signals, symbol	3
affect, attributes, constant (constantly), cultural, environmental, generate, initiate, intelligent (intelligence), label, monitors, occur, perspective, theory (theorist)	2
academic, accurate, analysis, apparent, approach, aspects, assigned, attitude, channels, complex, conflict, considerably, cooperation, core, create, crucial, define, demonstrate, despite, distorted, dynamic, equality, especially, evaluation, exclusive, factors, features, finally, flexible, global, goals, hierarchy, ignore, illustrates, impact, inevitably, inherent, instructions, irreversible, isolation, journal, linked, location, logic, major, networks, objective, odd, participant, passively, potential, predict, qualitative, require, research, respond, seek, shifting, significant, specific, strategic, sufficiently, survival, task, temporary, tension, underlie, variables, varies	1

## Appendix D.

### AWL Frequency Analysis Results of Corpus 2

AWL WORDS	f
communication (communicate, communicative)	300
define (definition)	37
image, individual, process	12
motivate (motivation)	10
involve (involvement)	8
environment, evaluate (evaluation), interact, team	7
aspect, identity, interpret	6
affect, concept, establish, internal, negative (negatively), research (researcher), symbol, text	5
achieve, benefit (beneficial), context, create, culture, external, function (functional), goal, instructor, perspective, role	4
analysis, conclusion, conflict, element, journal, maintain, occur, positive (positively), rely, significant, similar, whereas	3
author, aware (awareness), complex, constant, essentially, factor, final, identify, impact, link, modify, principle, proceed, react (reaction), resolution, reverse (irreversible), section, stress, style, sum, topic	2
appreciate, appropriate, assumptions, attitudes, brief, colleagues, community, comprising, conclude, construct, contact, contrary, contribute, core, crucial, data, distinction, enable, encounter, generate, grading, hence, initiate, instance, intelligence, major, methods, negligible, normal, oriented, period, phase, physical, preceded, predict, psychological, requiring, seek, somewhat, sustainable, theory, transfer, transmit, trigger, undergo, undertake	1



## **English for academic purposes (EAP) instructors' perspectives on the integration of formative assessment in the EAP context of Iran**

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### **Abstract**

As English for Academic Purposes (EAP) instruction is based on learner-centered approaches, it is essential that the assessment procedures be designed in accordance with the emphasis on the learner and learning. Formative assessment is one of those assessment approaches which would offer several benefits for EAP learners. This study aims to explore the perception of 56 Iranian EAP university instructors on the inclusion of formative assessment in EAP instruction. Using questionnaires and interviews, it was revealed that the instructors adopted positive attitudes toward the use of formative assessment in EAP instruction despite several obstacles to its implementation. Results confirmed that EAP teachers were aware of the merits of formative assessment for EAP instruction. It was also depicted that the EAP instructors did not have the required expertise and



knowledge for the implementation of formative assessment in EAP instruction. The dominant assessment tool in the Iranian EAP courses is summative assessment which is in the form of the final exam. Recommendations have been made on how to incorporate formative assessment into the EAP curriculum.

**Keywords:** EAP; formative assessment; obstacles; attitudes; learner-centered approach; teachers

### **Formative assessment: Theoretical background**

According to Vygotsky (1986), culture and contexts are two important elements in educational contexts. Interaction and language are two crucial factors which construct individuals' knowledge. In addition, learning is a socially-mediated process which is highly culture-and-context-based (Shepard, 2005a). There is a close link between the notion of zone of proximal development (ZPD) and formative assessment. Through the use of formative assessment, students will be able to move from what they know at the present time to what they will be able to do in the future and this is what is suggested by the notion of ZPD (Shepard, 2005a; Vygotsky, 1978). As Shepard (2005a) asserts, scaffolding and formative assessment are two beneficial tools with the aid of which teachers become able to help their students to actualize the requirement of ZPD and move toward their potential abilities. Gibbons (2002) points out that scaffolding is a process in which teachers provide support and aid for their learners when they are involved in problem solving. The support and aid can include guidance, provision of motivation for students to complete tasks, and reminders.

It has been suggested that formative assessment, like scaffolding, is an appropriate tool to support and motivate students to develop greater competence and it provides guidance on how to revise and alter instruction in order to gear it to students' needs and learning potentials (Shepard, 2005a). Formative assessment would also improve students' and teachers' collaboration during task conduction and improve the quality and quantity of negotiation of meaning between the teacher and student (Shepard, 2005a). This aspect of formative assessment is in line with the issues and theoretical perspectives of the sociocultural theory of learning (Shepard, 2005a).

### **The implementation of formative assessment in education**

Educational and testing experts have taken interest in the use of formative assessment in educational settings. To define formative assessment, it can be stated that "formative assessment emphasizes the role students play in the process of learning, whereby they can negotiate learning goals and outcomes with teachers, and engage in self- and/or peer assessment" (Lee, 2011, p. 99). More

precisely, Black and William (1998, p.2) define formative assessment as “all those activities undertaken by teachers, and by their students in assessing themselves, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged”. Specifically, in educational contexts, formative assessment offers several affordances, including emphasis on the learning process, improvement in students’ motivation and attitudes, reduction in students’ test anxiety and stress, a wider sampling of students’ progress and achievement, quality feedback provision, student-centeredness, enhancement in teachers’ and students’ cooperation, and increase in students’ interaction (Baines, Blatchford & Chowne, 2007; Black, 2005; Carreira, 2012; Lee, 2011).

On the contrary, summative assessment is an assessment procedure which is widely known to be a complement for and at times in contrast to formative assessment procedures. More importantly, Jones (2006) asserts that while summative assessment deals with the assessment of learning, formative assessment deals with the assessment for learning. Summative assessment shows students’ achievement at a certain point and time. Furthermore, summative tests are frequently used for grading purposes. Examples of summative assessment are “state assessments, district benchmark or interim assessments, end-of-unit or chapter tests, scores that are used for accountability of schools and students” (Garrison & Ehringhaus, 2007, p. 2). Summative assessment is conducted for some specific purposes, including assessing the efficiency of educational programs, curriculum alignment, and students’ placement (Garrison & Ehringhaus, 2007). Since the information provided by summative assessment is very sporadic and product-based, it cannot be used to assess and evaluate students’ learning processes and progress during a particular course.

According to Garrison and Ehringhaus (2007), there are distinguishing factors which might help to make a distinction between summative and formative assessment. One of the key issues in terms of formative assessment is its emphasis on practice. Students are supposed to take responsibility for their learning and practice so that they can improve their learning process. The other distinguishing factor is linked to the engagement of students in their learning and the provision of continuous feedback for students to change or improve their learning practices. The use of summative assessment is more restricting in that it does not provide sufficient feedback for students and students do not have the opportunity for being involved in the process of assessing themselves.

Formative assessment can be employed for different purposes and aims. For instance, it can be used to identify students’ weaknesses and strengths during an educational course, divert students’

attention from grades and marks to their quality and process of learning, improve students' metacognitive awareness about their learning process, and enhance the quality of instruction through providing information for instructors to change or reform their teaching quality (Huhta, 2010; Shepard, 2005b).

As for validity of formative assessment, Bennet (2011) asserts that formative assessment is an inferential process. The validity of formative assessment is established when a teachers observes students' performance though multiple sources, contexts, and conditions. Therefore, the implementation of formative assessment enables teachers to make stronger inferences about students' behavior during a long period of time. As Bennet (2011, p. 17) argues "each teacher-student interaction becomes an opportunity for posing and refining our conjectures, or hypotheses, about what a student knows and can do, where he or she needs to improve, and what might be done to achieve that change". The effectiveness of assessment will increase as a result of this prolonged teacher-student interaction when formative assessment is implemented in educational contexts.

In terms of reliability, Way, Dolan, and Nichols (2010) point out that in formative assessment, reliability can be defined in terms of the "evaluation of the reliability of each component, and how the components are combined in in producing information about student learning" (p. 308). Both quantitative (such as coefficient alpha) and qualitative approaches can be adopted to estimate the reliability of the components of formative assessment. Unlike validity, the reliability of formative assessment is a moot issue which deserves further investigation and research (Way, Dolan, and Nichols, 2010).

Regarding the pedagogical aspects of formative assessment, Bennet (2011) believes that teachers should have substantial knowledge when formative assessment is to be implemented. Teachers should be supported to have access to classroom materials which are necessary for the implementation of formative assessment. In addition, teachers who are willing to implement formative assessment should foster their knowledge of assessment and the different tools and procedures that can be adopted to assess students' performance in the classroom. Therefore, both assessment knowledge and pedagogical knowledge are required when teachers are supposed to implement formative assessment in their instruction.

## **Assessment in EAP/ESP**

As Hyland (2006) asserts, “assessment refers to the ways used to evaluate information about a learner’s language ability or achievement. It is an integral aspect of the teaching-learning process and central to students’ progress towards increasing control of their skills and understandings.” (p. 99). Hyland (2006) further points out the main rationales for assessing students. The first reason is “diagnostic”. The diagnostic aspect of assessment is related to detecting the strengths and weaknesses of students and is frequently used in needs analysis projects. “Achievement” is the other reason for assessing students and checking students’ progress during a course. “Performance” is the other rationale behind assessment in which learners’ abilities might be analyzed before performing target academic functions or tasks. The “proficiency” rationale is in connection with assessing students’ general proficiency and is used for university studies. The last reason for assessing students is “accountability”. In this regard, assessment will provide information for authorities about the achieved outcomes. Douglas (2000) distinguishes EAP assessment from other types of language assessment by pointing out that EAP assessment takes into account that language performance varies with regard to various contexts and that EAP assessment is precise. He argues that EAP assessment should provide an optimal level of interaction between the test taker, specific content and test task. This increased interaction will improve the authenticity of the test. Moreover, precision refers to the fact that EAP assessment is closely related to the vocabulary, structures, and phonological features which are related to specific fields. Therefore, it can be concluded that the variety of contexts and interactional authenticity are two fundamental foundations of assessment in English for academic purposes contexts (Douglas, 2000).

In addition, Douglas (2000) proposes that an important feature of language for specific purposes (LSP) assessment is that it can be criterion-referenced or norm-referenced. He further suggests that criterion-referenced testing can offer more benefits and merits for language for specific purposes testing. Likewise, it is crucially important to provide a comprehensive and precise definition for specific language ability or the domain of content in this regard. As a result, in LSP testing and assessment, specific attention should be paid to the detailed and elaborate specifications of target language situations and criteria to assess performance in LSP contexts.

## **Formative assessment in EFL/EAP contexts**

In language teaching contexts, both formal and informal procedures can be adopted to collect data for the purposes of formative assessment (Griffin, 2007). The informal method of data collection

might include observing students' behaviors, analyzing teacher-student and student-student interactions, and analyzing students' written work. However, the formal procedures include administration of different assessment tools, including tests and quizzes. Devine (2009) suggests that assessment should facilitate learning and assist EFL learners to learn the foreign language.

In terms of EAP instruction, much emphasis has been placed on the role of the learner and learner-centered approaches to teaching (Hyland, 2006). EAP assessment and testing should accordingly be grounded on the active role of the learner in the process of assessment and the provision of appropriate feedback in order to facilitate the learning process. Consequently, the use of formative assessment for ESP/EAP instruction may offer a myriad of benefits both for EAP teachers and EAP students. Moreover, Hyland (2006) believes that various types of feedback should be provided for EAP learners. Peer feedback, peer interactions, teacher conferencing are examples of assessment tools which would enhance the efficiency of assessment in EAP instruction. Obviously, providing continuous feedback and interaction in EAP assessment would not be feasible without the implementation of formative assessment.

### **Research on perspectives on formative assessment**

In general, a large number of studies have been conducted on teachers' perceptions of formative assessment in educational and EFL/ESP contexts. In general, the results of these studies show that the teachers perceive the use of formative assessment as effective and beneficial, while their actual use of formative assessment in their classrooms is different from their perceptions of formative assessment. In other words, there is a discrepancy between teachers' attitudes toward formative assessment and their use of formative assessment tools in their classrooms and teaching. In addition, there are some challenges to the use of formative assessment in educational contexts. The findings of previous research on the implementation of formative assessment show that teachers adopt positive attitudes toward formative assessment, while there are resistance and challenges to its implementation in educational contexts (Aitken, 2000; Al-kindy, 2009; Berry, 2004; Çimer & Timucin, 2008; Chevalier, 2011; Sach, 2012; Thembayen, 2009). Based on the results of previous studies, formative assessment offers a plethora of merits and benefits for both teaching and learning. Specifically, these benefits include improvement in student learning, increase in students' responsibility for learning, opportunities for self-assessment, and facilitation of student learning (Berry, 2004; Mohammed, 2013; Sach, 2012; Song & Koh, 2010; Thembayen, 2009).

The other strand of research on the implementation of formative assessment has explored students' perspectives. The findings of these studies indicate that the majority of students have positive attitudes toward the use and implementation of formative assessment. Students perceived that formative assessment would facilitate their learning and decrease their test anxiety and improve their achievement and scores in summative tests (Chetchumlong, 2010; Gijbels & Dochy, 2006; Hurst, 2011; McKenna, 2011; Perera & Morgan, 2011; Ruland, 2011). Some students expressed their interest in the combination of summative and formative approaches to assessment (Gijbels & Dochy, 2006; McKenna, 2011).

Even though the previous research has revealed that the implementation of formative assessment in educational contexts would be beneficial and promising, several challenges and obstacles have been reported accordingly. The challenges to the implementation of formative assessment comprise teachers' lack of confidence and knowledge of formative assessment, teachers' lack of knowledge of testing and assessment approaches, teachers' nonuse of formative assessment in their classrooms, and lack of training on formative assessment for teachers (Aitken, 2000; Al-Kindy, 2009; Berry, 2004; Çimer & Timucin, 2008; Chevalier, 2011; Sach, 2012; Thembayen, 2009). The issue of teachers' lack of knowledge of testing and formative assessment procedures can be closely connected to the concern that Bennet (2011) expressed earlier. Specifically, one major barrier to the implementation of formative assessment is that teachers are not prepared or competent enough to implement formative assessment. To implement formative assessment, a teacher "observes behaviour, formulates hypotheses about the causes of incorrect responding, probes further, and revises the initial hypotheses" (Bennet, 2011, p. 17). Therefore, training on how to implement formative assessment for teachers may provide them with the required confidence and knowledge.

Although both summative and formative approaches to assessment may be implemented by using the same tools (tests, quizzes, etc.), the two approaches differ at the level of implementation. In particular, implementing formative assessment might place new demands on language teachers since teachers should spend more time and energy to follow students' progress over a period of time and provide timely and quality feedback to students. In general, it appears that there is a discrepancy between teachers' positive attitudes toward the implementation of formative assessment and their actual practice of formative assessment. This discrepancy between teachers' perceptions and actual use might be related to the challenges and barriers which discourage teachers from implementing formative assessment.

As the literature review indicates, both teachers and students express general acceptance of implementing formative assessment in educational contexts. Most challenges concerning the implementation of formative assessment are closely related to teachers' lack of preparedness and knowledge. The elimination of these impeding factors might facilitate the inclusion of formative assessment in educational contexts and empower teachers with more robust and effective assessment tools.

To facilitate the integration of formative assessment in educational contexts, Mohammed (2013) proposes that specific workshop, seminars and in-service training courses should be held so that teachers gain the knowledge of implementing formative assessment in their courses. He further argues that policy makers should pave the way for the implementation of formative assessment by acknowledging the true value of formative assessment and its integration in university teachers' and students' educational activities.

### **EAP assessment in Iran**

In Iran, much emphasis has been placed on the inclusion of EAP courses in university curricula. Undergraduate university students are supposed to attend both general and academic English courses. Moreover, "an important section of the graduate entrance exam is students' level of competence in their related EAP field" (Eslami, 2010, p.15). Despite the importance of EAP instruction in Iran, EAP instruction is mostly based on traditional approaches to language teaching. Enabling students to translate text from the target language to the native language and learning academic vocabulary through providing the meanings of vocabulary items in the native language are the main aims of EAP courses in Iran (Eslami, 2010). Reliance on the final exams and summative approaches to testing is also common in the EAP context of Iran (Mazdayasna & Tahririan, 2008). While teaching all skills can be considered in EAP courses, only reading comprehension is taught in EAP courses in Iran (Mazdayasna & Tahririan, 2008). Specifically, there are several challenges to the implementation of EAP instruction in the Iranian EAP context. The EAP courses in Iran have been criticized since they are not designed based on students' needs and lack a research-based foundation (Eslami, Eslami-Rasekh, & Quiroz, 2007; Eslami, 2010). More importantly, EAP teacher education programs are not efficient enough to prepare EAP teachers for teaching EAP at the university level. EAP textbooks in Iran are developed based on EAP experts' decisions, while students' needs are not considered and incorporated sufficiently and appropriately.

As for assessment and evaluation, traditional approaches, final exams and summative assessment to testing and assessment are used and practiced in the EAP context of Iran. The EAP tests are mainly developed by EAP instructors or the English department. The tests are used as final exams or midterm exams, while the focus of the tests is on students' use of academic vocabulary, reading, and translation. Alibakhshi, Ali, and Padiz (2011) criticize the use of EAP tests in the Iranian EAP contexts in several respects. The first criticism is leveled against the issue that the EAP tests in Iran are based on cutoff points and criterion-referenced testing, while there are not any obvious criteria for stipulating such cutoff points and scores. The next issue is that most EAP tests have been designed without conducting critical and extensive analyses of Iranian students' needs, interests and preferences. The content and construct validity of these EAP tests is also a matter of concern. Most of these tests have been developed based on structural linguistics. In addition, much emphasis should be placed on the use of new and effective testing and assessment procedures in the EAP context of Iran. In general, previous research on the implementation of formative assessment in EFL context of Iran indicates that formative assessment would be an effective assessment tool for students and learning (Fahim & Fahim, 2011; Ghoorchaie, Tavakoli & Nejad Ansari, 2010). For instance, Fahim and Fahim (2011) explored students' learning using multiple choice questions versus true false questions. The learners were two groups of adult intermediate students and they were given quizzes in form of multiple choice questions and true false questions for 5 sessions. There was no significant difference between students' learning using the two formative testing methods, while it was reported that formative assessment can be a useful tool for assessing students' grammar knowledge. Ghoorchaie et al. (2010) examined the effect of formative portfolio assessment on Iranian EFL students' writing competence. They reported that the implementation of formative assessment improved students' writing proficiency, i.e. writing organization, elaboration, and vocabulary. It was suggested that Iranian EFL authorities and teachers should strive to include formative approaches to assessment in Iranian EFL contexts.

Even though most of studies on formative assessment are related to EFL instruction, in EAP and ESP contexts, there is a dearth of research directed toward the issue of assessment and testing in general and formative assessment in particular, while it has been revealed that the use of formative assessment would be considerably beneficial and facilitative for both EAP learning and teaching. Moreover, the majority of studies conducted on the implementation of formative assessment in Iran have explored students' perceptions of formative assessment, while teachers' perceptions have remained uninvestigated and neglected. Therefore, this study aimed at exploring the perceptions of



Iranian EAP teachers on the use of formative assessment in EAP instruction. Teachers' knowledge of implementing formative assessment and their current use of formative assessment procedures were further investigated. Accordingly, the following research questions were formulated regarding the purposes of this study:

- 1) What are the attitudes of Iranian EAP instructors toward the integration of formative assessment in EAP instruction?
- 2) What are the perceptions of Iranian EAP instructors on the obstacles and challenges to the integration of formative assessment in EAP instruction?
- 3) What are the perceptions of Iranian EAP instructors on their knowledge of implementing formative assessment?
- 4) What formative assessment practices are currently used by Iranian EAP instructors?

## **The study**

### ***Design***

This study is an attempt to uncover the perceptions of Iranian EAP teachers on the implementation of formative assessment in EAP instruction. For the specific purposes of this study, a mixed-method design, including Likert-item questionnaires and semi-structured interviews, were employed. The use of follow-up interviews was considered in order to perform a methodological triangulation. Both the interviews and questionnaires were based on the same focus in order to triangulate the results.

### ***Participants***

A convenience sample of 56 EAP teachers took part in this study. The participants' average age was 37.5. The teachers were selected from a number of Payame Noor, Azad, and public universities in Iran. Since the teachers were supposed to be familiar with formative assessment prior to the administration of the questionnaires, the teachers were asked about their familiarity with formative assessment. To improve the response validity of the participants, only those EAP teachers who had familiarity with the concept of formative assessment were included in the sample. The EAP teachers had taught EAP for more than 6 years. The sample comprised 49 male EAP teachers and 7 female EAP teachers. The same 56 participants participated in the interview phase of the study.

## *Instruments and analysis*

To investigate the perceptions of EAP teachers, a four-point Likert item questionnaire was developed. Since there was no well-designed questionnaire available to the researcher in order to be employed in the present study, the researcher developed a self-constructed questionnaire for the purposes of this study. The items were developed based on a critical and extensive review of literature on formative assessment and its application for EAP/EFL instruction (e.g., Baines, Blatchford & Chowne, 2007; Black, 2005; Carreira, 2012; Garrison & Ehringhaus, 2007; Huhta, 2010; Lee, 2011; Shepard, 2005a; Shepard, 2005b). The questionnaire (Appendix 1) consisted of four sections including 1) EAP teachers' attitudes toward formative assessment of EAP (9 items, Cronbach Alpha= 0.92), 2) Obstacles to the implementation of formative assessment in EAP instruction (8 items, Cronbach Alpha= 0.88), 3) EAP teachers' knowledge of the use of formative assessment (6 items, Cronbach Alpha= 0.80), 4) The current use of formative assessment in EAP courses (11 items). The items of the questionnaire were sent to six senior professors of applied linguistics, who were experts of EAP, for improvements and suggestions.

The second instrument was the interview. After ensuring the content validity of the questions of the interviews, the EAP teachers were asked to participate in the interview study as well. The interview questions were similar to the questionnaire sections in order to triangulate the collected data. The following questions were used in the interviews:

1. What do you think of the use of formative assessment in EAP instruction?
2. What are the possible obstacles or challenge to the use of formative assessment in EAP instruction?
3. What do you think of your level of knowledge to use or implement formative assessment in your EAP instruction?
4. What sorts of tests or assessment procedures do you employ in assessing your students in your EAP instruction?

The results of the questionnaires were shown in terms of percentages. The mean and standard deviation were also included in the analysis of each item. SPSS version 16 was used to perform all the analysis on the questionnaire data. The interviews were analyzed through content analysis. The frequent themes were identified and reported to support the results obtained from the questionnaire study.

## Findings

### *EAP instructors' attitudes toward formative assessment of EAP*

Based on the results shown in Table 1, it appears that the EAP instructors adopted positive attitudes toward the implementation of formative assessment in EAP courses (total mean=2.98). In particular, the EAP instructors perceived the implantation of formative assessment as beneficial due to several reasons. More specifically, the teachers *agreed* or *strongly agreed* with some benefits of formative assessment such as Formative assessment in “EAP instruction improves EAP students’ learning”, “the implementation of formative assessment improves students’ motivation to learn academic English”, “the implementation of formative assessment creates a student-centered approach to EAP teaching”, “formative assessment would help EAP teachers improve their instruction”, “quality feedback can be provided for EAP students through formative assessment”, “formative assessment can inform the EAP curriculum”, “formative assessment in EAP shifts the focus on learning process rather than its product”, “the implementation of formative assessment for EAP instruction is easy”. However, the teachers did not have consensus on the importance of “the implementation of formative assessment is time-saving”.

The findings of Table 1 indicate that the teachers believe that the implementation of formative assessment can be beneficial and effective in the Iranian EFL context. They had positive perceptions about the majority of the reasons for which formative assessment is implemented in EFL instruction.

**Table 1: EAP instructors' attitudes toward formative assessment of EAP**

	1. Strongly disagree	2. Disagree	3. Agree	4.Strongly agree	Mean	SD
Formative assessment in EAP instruction improves EAP students' learning	0	3.6	62.5	33.9	3.30	0.54
The implementation of formative assessment improves students' motivation to learn academic English	1.8	8.9	46.4	42.8	3.3	0.72
The implementation of formative assessment creates a student-centered approach to EAP teaching	1.8	5.4	69.6	23.2	3.14	0.59

Formative assessment would help EAP teachers improve their instruction	3.6	14.3	50	32.1	3.1	0.78
Quality feedback can be provided for EAP students through formative assessment	5.4	14.3	48.2	32.1	3.08	0.82
Formative assessment can inform the EAP curriculum	1.8	8.9	73.2	16.1	3.03	0.57
Formative assessment in EAP shifts the focus on learning process rather than its product	3.6	23.2	57.1	16.1	2.85	0.73
The implementation of formative assessment for EAP instruction is easy	14.3	17.9	42.8	25	2.79	0.98
The implementation of formative assessment is time-saving	21.4	44.6	26.8	7.1	2.2	0.85

In the interviews, EAP instructors (85.7%) held favorable attitudes toward the integration of formative assessment in EAP instruction. They believed that formative assessment in EAP would improve both EAP teaching and learning. The EAP teachers also were of the opinion that the inclusion of formative assessment would provide more information about students' learning and their weaknesses and strengths. Some teachers (55.4%) also stated that the implementation of formative assessment will help them adapt their instruction to the needs and lacks of EAP students. The teachers further mentioned that they can provide timely and continuous feedback for students and this will facilitate EAP students' learning. It was reported that through the use of formative assessment, students will have less stress and test anxiety since their total score is not merely dependent on their performance on the final exam.

*I think that in EAP courses, students should be assessed periodically. This is necessary because it improves the way teachers teach and students learn. (Teacher 12)*

*In my view, assessing students by means of final exams is not an effective approach. I frequently see that students' final exam score and their amount of class participation don't match, while we (EAP teachers) usually try to consider the final exam score as the indicator of students' overall*

*performance. Thus, assessing students continuously can help us to have fair judgments about their performance.*(Teacher 35)

To conclude and triangulate the results of the questionnaires and interviews, it can be asserted that the results of the questionnaires are in line with the results of the interviews since the data obtained from both instruments indicate that the EFL teachers adopt positive attitudes toward the implementation of formative assessment. Improvement of learning, opportunities for providing quality and timely feedback, reduction of students' anxiety and increase in their motivation were the findings which were echoed in both the questionnaires and interviews.

### **Obstacles to the implementation of formative assessment in EAP instruction**

As it is shown in Table 2, The EAP teachers referred to several obstacles to the use of formative assessment in EAP courses. The teachers agreed or strongly agreed with some challenges such as “impossibility of implementing formative assessment because of the rigid EAP curriculum”, “lack of support from the EAP authorities for EAP teachers to use formative assessment in EAP course”, “lack of time to implement formative assessment in EAP courses”, “EAP teachers' lack of knowledge about the implementation of formative assessment”, “department's lack of support to use formative assessment in EAP courses”.

However, the EFL teachers disagreed with some challenges of the implementation of formative assessment such as “the consumption of much energy to implement formative assessment in EAP courses”, “students' disinterest in the use of formative assessment in EAP courses”, “ineffectiveness of the use of formative assessment for EAP instruction”.

The findings show that the while the teachers are aware of some limitations of formative assessment, they do not agree with all the limitations which were pointed out in the previous literature.

**Table 2: Obstacles to the implementation of formative assessment in EAP instruction**

	1. Strongly disagree	2. Disagree	3. Agree	4. Strongly agree	Mean	SD
Impossibility of implementing formative assessment because of the rigid EAP curriculum	3.6	8.9	33.9	53.6	3.39	0.78
Lack of support from the EAP authorities for EAP teachers to use formative assessment in EAP course	5.4	10.7	35.7	48.2	3.27	0.85
Lack of time to implement formative assessment in EAP courses	1.8	16.1	42.9	39.3	3.19	0.74
EAP teachers' lack of knowledge about the implementation of formative assessment	7.1	12.5	55.4	25	2.98	0.82
Department's lack of support to use formative assessment in EAP courses	14.3	21.4	37.5	26.8	2.78	1
The consumption of much energy to implement formative assessment in EAP courses	28.6	30.4	23.2	17.9	2.30	1.08
Students' disinterest in the use of formative assessment in EAP courses	32.1	41.1	21.4	5.4	2.04	1
Ineffectiveness of the use of formative assessment for EAP instruction	39.3	26.8	30.4	3.6	1.99	0.93

In the interviews, it was reported that there is a mismatch between the demands of the EAP curriculum in Iran and the use of formative assessment in EAP courses. The teachers (83%) also stated that they do not know much about the theories and practices of formative assessment. As it was revealed in the survey, it was reported (76.8%) that the EAP courses are very intensive and there is not much time for teachers to be engaged in the continuous assessment of EAP students. Some EAP teachers (50%) also asserted that EAP students might not be ready for the implementation of formative assessment and they need some training on how to be involved in the use of formative assessment.

*Any change in EAP assessment depends on changes in the EAP curriculum. At present, I think the Iranian EAP curriculum doesn't have the required flexibility to implement formative assessment. Therefore, I believe we should first assess our EAP curriculum and then try to change our assessment approaches. (Teacher 52)*

*In fact, EAP teachers are usually under time pressures in EAP courses. Then, I think it's a bit hard to assess students' work continually. (Teacher 8)*

Based on the triangulated data of the questionnaires and interviews, it can be argued that the teachers believe that the implementation of formative assessment is not without challenges. Teachers' lack of knowledge of formative assessment and lack of time to implement formative assessment were the findings which were reported both in the questionnaires and interviews.

### **EAP teachers' knowledge of the use of formative assessment in EAP instruction**

Based on the values shown in Table 3, it appears that the teachers have limited knowledge about the implementation and use of formative assessment (total mean= 2.28). Specifically, the teachers lacked “the ability to prepare EAP students for the implementation of formative assessment”, “the ability to adapt your teaching techniques and procedures to the requirements of formative assessment”, “knowledge of EAP testing principles and theories”, “knowledge of designing EAP tests”, “knowledge of the theoretical principles and issues of formative assessment”, “knowledge of designing tests for the purposes of formative assessment”.

**Table 3: EAP teachers' knowledge of the use of formative assessment**

	Not proficient	A little proficient	Fairly proficient	Proficient	Mean	SD
The ability to prepare EAP students for the implementation of formative assessment	5.4	37.5	42.9	14.3	2.66	0.78
The ability to adapt your teaching techniques and procedures to the requirements of formative assessment	12.5	41.1	28.6	17.9	2.51	0.91
Knowledge of EAP testing principles and theories	21.4	33.9	30.4	14.3	2.37	0.97
Knowledge of designing EAP tests	14.3	51.8	25	8.9	2.29	0.82

Knowledge of the theoretical principles and issues of formative assessment	35.7	32.1	28.6	3.6	2	0.89
Knowledge of designing tests for the purposes of formative assessment	46.4	26.8	19.6	7.1	1.88	0.93

The interview findings confirm the results of the questionnaires regarding EAP teachers' knowledge of the use of formative assessment. The majority of teachers (94.6%) reported that they did not know how to design formative tests for EAP. They (91.1%) also mentioned that they had limited knowledge of formative assessment and how to design tests and tools for implementing formative assessment.

*Unfortunately, I know very little about formative assessment. Of course, I know a little about its theories and rationales, but I don't know how to use it in practical teaching and testing conditions.*  
(Teacher 25)

To sum up, the results of the questionnaires and interviews showed that the teachers had little knowledge regarding the implementation of formative assessment. Specifically, the teachers lacked the knowledge of designing and implementing formative tests.

### **The current use of formative assessment in EAP courses**

Table 4 depicts that the main assessment tool in EAP courses is the final exam. It is clear that the other formative assessment tools are not commonly employed by the EAP teachers to assess their students. Specifically, the majority of teachers did not use "observations", "checklists", "oral presentations", "essays/written tasks", "periodic quizzes/tests", "portfolios", "student self-assessment", "classroom tasks", "peer assessment", and "homework assignments". In contrast, the majority of EFL teachers used "final exams" as the only assessment tool in their EFL courses.

**Table 4: The current use of formative assessment tools in EAP courses**

	Use	Non-use
Observations	35.7	64.3
Checklists	0	100
Oral presentations	3.6	96.4



Essays/Written tasks	23.2	76.8
Final exams	98.2	1.8
Periodic quizzes/tests	5.4	94.6
Portfolios	0	100
Student self-assessment	10.7	89.3
Classroom tasks	37.5	62.5
Peer-assessment	3.6	96.4
Homework assignments	12.5	87.5

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As it was shown in the survey study, the interviews revealed that only summative assessment is implemented by giving the final exam. The majority of teachers reported that they solely rely on the final exam to assess and evaluate their students.

### **Discussion and conclusion**

In general, the findings show that the EAP teachers perceive the use of formative assessment for EAP instruction as beneficial and effective. EAP teachers can play a considerable role in the implementation of formative assessment in EAP instruction. This positive attitude of EFL teachers might show their high confidence in the actual use of formative assessment in EAP instruction. The finding regarding EAP teachers' positive attitudes toward the use of formative assessment is commensurate with the findings of previous studies which have revealed the positive attitudes of teachers toward formative assessment (e.g., Chevalier, 2011; Çimer and Timucin, 2008; Lee, 2011; Sach, 2012). Specifically, the EAP teachers perceived the benefits of formative assessment for EAP learners and EAP learning. The findings might imply that the EAP teachers are aware of the merits and advantages of formative assessment and this will facilitate the inclusion of formative assessment in EAP assessment. However, the analysis of EAP teachers' attitudes toward formative assessment after its actual implementation in EAP instruction has remained an uninvestigated area of research so far. The finding leads us to the conclusion that formative assessment would be an effective assessment procedure in EAP instruction since the EAP teachers regarded it as useful and efficient. In the actual use of formative assessment, EAP teachers can create positive attitudes in their students regarding using different formats of formative assessment. Obviously, the EFL teacher is the most influential individual in motivating and encouraging EAP students to use

formative assessment in EAP courses. I suggest that future research be directed toward the perceptions of EAP students on the use of formative assessment as well.

Even though the EAP teachers adopted positive attitudes toward the implementation of formative assessment in EAP instruction, there are a couple of impediments which might discourage EAP teachers from integrating formative assessment in EAP instruction. It was revealed that one of the significant barriers is the restrictive EAP curriculum which limits EAP teachers. The curriculum should be more resilient in order to allow teachers to implement formative assessment and other learner-centered approaches to teaching and testing since EAP instruction is mainly based on learner-oriented views to teaching. Definitely, the incorporation of formative assessment into EAP instruction will promote the flexibility of the curriculum. Similar to this obstacle is the lack of support from EAP authorities and departments to enable or motivate EAP teachers to implement formative assessment. EAP authorities and department heads should encourage EAP teachers to use learner-centered approaches, including formative assessment. Lack of time is another important impeding factor which might affect EAP teachers' use of formative assessment. Since formative assessment should be implemented continuously, more time and effort is required to be used to implement it successfully and efficiently. EAP providers can implement reforming changes into the EAP curriculum so that both EAP students and teachers become able to include formative approaches to assessment in their learning and teaching experiences. EAP teachers would not be able to implement changes to the curriculum themselves when they are not supported by the other EAP stakeholders. In addition, EAP students should be willing to accept formative assessment as a part of their learning and cooperate with their teachers to implement formative assessment effectively. Admittedly, formative assessment cannot be employed without the effective cooperation of teachers and students (Bennett, 2011; Lee, 2011).

As for the EAP teachers' knowledge of and ability to implement formative assessment in EAP instruction, the findings were illustrative that the majority of teachers had limited knowledge about the use and development of formative tests. The teachers also reported that they did not have the required knowledge about the development of EAP tests and assessment. This lack of knowledge and proficiency seems to be related to both theoretical and practical aspects of the use and development of formative assessment. Bennett (2011) believes that extensive and deep knowledge is required on the part of teachers to implement formative assessment. Both sufficient time and support should be allocated to prepare teachers for the demands of the implementation of formative assessment. Furthermore, appropriate testing and assessment materials should be provided for

teachers to enable them to implement formative assessment. In EAP contexts, specific workshops and teacher meetings can be held in which teachers can acquire the required knowledge and expertise regarding the implementation of formative assessment. Training for the use of formative assessment can also be incorporated in mainstream teacher education/training programs. These training measures will improve both the quality of teaching and learning in EAP instruction.

Additionally, the results demonstrate that the dominant approach to assessment in the Iranian EAP courses is summative assessment. As Dudley-Evans and St. John (1998) assert, the use of final exams and summative tests would not help EAP learners and learning. The use of summative assessment may be beneficial provided it is combined with formative types of assessment. The absence of the use of formative assessment in EAP instruction might be related to the impeding factors which were mentioned earlier. The removal of these obstacles might facilitate the integration of formative assessment into the EAP curriculum in Iran and other countries. Future research would help EAP curriculum developers identify other important barriers to the use of formative assessment in other EAP contexts. Apparently, assessment in EAP is an uninvestigated area of research and more attention should be directed at this issue both in Iran and other countries.

### **Implications and recommendations**

This study would have several implications for different EAP stakeholders in Iran. For successful EAP course development, it is essential that information be collected from different EAP stakeholders, including teachers, learners, materials developers, course designers, etc. While the focus should be always on the learner, EAP teachers have direct connections with students through the classroom and they might be well-aware of students' needs, lacks, and interests. I would like to make several suggestions based on the results of this study:

- 1) EAP/EFL teacher education/training programs should be more concerned with testing and assessment. In Iran it seems that EAP testing and assessment is not a serious issue and the assessment practices seem to be traditional and ineffective. EAP teacher education/training programs can include EAP testing and assessment in their educational subjects so that EAP teachers acquire the essential skills to develop and use different types of tests and assessment procedures, including formative assessment.

2) I suggest that EAP teachers be involved in systematic and continuous test development projects under the supervision of testing experts. For the successful implementation of formative assessment, it is important that the EAP teachers be able to develop different types of tests and assessment tools to assess their students. Currently, it seems that the Iranian EAP teachers lack knowledge on how to develop and use different testing and assessment tools.

3) Alternatively, I suggest that EAP authorities provide EAP teachers with different types of testing modules for the implementation of formative assessment. EAP testing experts can be invited and can conduct needs analysis projects based on which they can develop and design different tests with various formats and EAP teachers can use them for the purpose of formative assessment.

4) As the implementation of formative assessment requires autonomy on the part of EAP students, I recommend that EAP teachers make attempts to create autonomy and accountability in EAP students. If EAP teachers create a learner-centered atmosphere in their EAP courses, the implementation of formative assessment will become much more feasible and plausible.

5) The English department and EAP teachers should have more cooperation in order to implement formative assessment. Definitely, the implementation of formative assessment requires time and energy and this might be extremely difficult for EAP teachers. If EAP teachers and the English department provide mutual support to implement formative assessment, both students and teachers will welcome formative assessment in the future.

### **Suggestions for further research**

Even though the current research investigated the perceptions of Iranian EAP teachers on the use of formative assessment in EAP instruction, further research is required in order to provide insights into the challenges and obstacles to the implementation of formative assessment in EAP instruction. As EAP students play considerable roles in the conduction of formative assessment, it is essential that future research investigate their perceptions on and attitudes toward formative assessment and issues related to its implementation in EAP instruction. Moreover, the attitudes and perceptions of EAP authorities and providers might provide valuable insights into paving the way for the implementation of formative assessment in EAP instruction.

More importantly, future research should focus on teachers' and students' actual practices and use of formative assessment in EAP instruction. Admittedly, what teachers and students perceive may be different from their actual practices and uses. Additionally, more important obstacles and challenges might be identified during the actual implementation of formative assessment in EAP course. These obstacles would not be detected when teachers and students report their perceptions of formative assessment prior to its actual conduction.

Future research should also be directed at exploring the use of other assessment procedures, including alternative assessment and dynamic assessment, in EAP instruction. Each assessment procedure would offer benefits and merits for assessing EAP students in a fair and comprehensive way.

### **Limitations**

The conduction of this study was not without limitations. First, EAP authorities and providers were not accessible to the researcher. The inclusion of EAP authorities' and course designers' perceptions and beliefs about the implementation of formative assessment could have provided valuable insights into the challenges and barriers. Furthermore, since EAP students might not have had the knowledge and awareness of the implementation of formative assessment, they were not included in the study. As the researcher was determined to include those who were familiar with the notion of formative assessment, the sample size was reduced. This reduction in the sample size was considered so as to enhance the response validity of the participants. However, larger samples would provide more in-depth data regarding the implementation of formative assessment in EAP instruction.

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## ***Appendix 1***

### ***Questionnaire on EAP teachers' attitudes toward formative assessment***

*Dear Instructors,*

*The following questionnaire is part of a research project that investigates the perceptions of EAP teachers' of the use of formative assessment in EAP instruction. Your responses will be treated in strict confidence and individual teachers/schools will not be identified in any report or publication. Please answer all questions as accurately as you can.*

#### ***Background information***

---

*Faculty:*

*University Degree:*

*Name of university:*

*Age:*

*Gender:*

*Years of EAP teaching experience:*

*Are you familiar with the notion of formative assessment? Yes..... No.....*

---

#### **Section 1: EAP teachers' attitudes toward formative assessment of EAP**

---

Agree	Strongly	Strongly	Disagree
agree			disagree

---

1. The implementation of formative assessment creates a student-centered approach to EAP teaching

2. The implementation of formative assessment for EAP instruction is easy

3. Formative assessment would help EAP teachers improve their instruction

4. Formative assessment can inform the EAP curriculum

5. The implementation of formative assessment is time-saving

6. Formative assessment in EAP instruction improves EAP students' learning

7. Quality feedback can be provided for EAP students through formative assessment

8. Formative assessment in EAP shifts the focus on learning process rather than its product

9. The implementation of formative assessment improves students' motivation to learn academic English

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## Section 2: Obstacles to the implementation of formative assessment in EAP instruction

---

	Strongly disagree	Disagree	Agree
Strongly agree			

---

1. EAP teachers' lack of knowledge about the implementation of formative assessment

2. Impossibility of implementing formative assessment because of the rigid EAP curriculum

3. Lack of time to implement formative assessment in EAP courses

4. Ineffectiveness of the use of

formative assessment for EAP  
instruction

5. Lack of support from the EAP  
authorities for EAP teachers  
to use formative assessment in  
EAP course

6. Students' disinterest in the use  
of formative assessment in EAP  
courses

7. The consumption of much energy  
to implement formative assessment  
in EAP courses

8. Department's lack of support  
to use formative assessment in  
EAP courses

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### Section 3: EAP teachers' knowledge of the use of formative assessment

---

	Not proficient	A little proficient
Fairly proficient    Proficient		

---

1. Knowledge of the theoretical principles  
and issues of formative assessment

2. Knowledge of EAP testing principles  
and theories

3. Knowledge of designing EAP tests

4. Knowledge of designing tests for  
the purposes of formative assessment

5. The ability to adapt your teaching  
techniques and procedures to the  
requirements of formative assessment

6. The ability to prepare EAP students  
for the implementation of formative  
assessment

**Section 4: The current use of formative assessment in EAP courses**

	Use	Non-use
Observations		
Checklists		
Oral presentations		
Essays/Written tasks		
Final exam		
Periodic quizzes/tests		
Portfolios		
Student self-assessment		
Classroom tasks		
Peer-assessment		
Homework assignments		



## **Citation in Vietnamese TESOL: Analysis of master's thesis introduction chapters**

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### **Abstract**

Citation is an important rhetorical feature of academic writing which allows writers to interact with readers and to exhibit the breadth of their knowledge in a specific area. However, there has been a scarcity of studies on how non-native English students cite in their master's theses. This paper, therefore, presents the study of in-text citations in 24 TESOL master's thesis introduction chapters written by Vietnamese students. Employing the Antconc and previous frameworks for citation types and functions and reporting verbs, the study revealed that besides an insignificant preference for integral citations and a very limited number of citation functions and reporting verbs used in their introduction chapters, this group of writers were likely to be unaware of the rhetorical consequences of their citations. Moreover, the presence of several secondary citations, their "invented" citing ways, grammatical mistakes, the absence of further discussions of the cited works and a limited

number of reporting verbs were also identified. These findings indicate a need for an increased amount of formal instruction in academic writing courses which aims at equipping novice writers with the means of successfully acknowledging the sources and at raising their awareness of the various functions and rhetorical effects that their use of citations and reporting verbs have in their academic writing.

Keywords: citation types; citation functions; reporting verbs; Vietnamese writers; TESOL master's thesis; introduction chapters

## **1. Introduction**

Citing other works is a distinguishing feature of academic writing, and this practice has a complex communicative purpose with syntactic, semantic, and pragmatic variations (Jalilifar, 2012). Acquiring the skills for appropriate and effective use of citations thus helps writers to appropriately integrate other people's words and ideas into their writing and presents their study persuasively (White, 2004). Hyland (1999, 2000, 2002) also indicates that reference to the works or ideas of others has an important role in the knowledge construction. Swales (1986, 1990), who has pioneered the study of citation analysis from an applied linguistic perspective, creates clear formal distinctions between integral and non-integral citation forms as well as reporting and non-reporting. The integral citations are instances where cited author(s)' name(s) appear as a part of the reporting sentence while the non-integral ones are references in which the author(s)' name(s) have no syntactic function, but they are referred to in parentheses or by numbers. Integral or non-integral citations, Swales (1990) argues, are used to show writers' emphasis on cited authors or reported messages, respectively. Moreover, in the reporting citation, a reporting verb e.g., *state*, *show*, and *claim* is used to introduce previous works while in the non-reporting style, only previous research is mentioned without acknowledging the authors as the reporters of their results (Swales, 1990). In academic studies, citations have often been examined in terms of their types, functions and reporting verbs (Charles, 2006; Hyland, 1999, 2002; G. Thompson & Ye, 1991). Researchers believe that reporting verbs are the key feature which enables writers to attribute content to another source and allows them to convey both the kind of activity reported and their evaluation (Hyland, 1999, 2002; Hawes & Thomas, 1994; Thompson & Ye, 1991). Furthermore, tenses and voice of reporting verbs are also used to indicate the writer's stance towards the research reported (Swales, 1990).



Despite the important roles of citation in academic writing and of master's (M.A.) theses in a student's academic accomplishment, few studies have been conducted on how citations are used in M.A. theses, especially those written by non-native English writers (NNEW) (Jalilifar, 2012; Jalilifar & Dabbi, 2012; Petrić, 2007). Previous studies have shown that novice NNEW use a limited type of citation without synthesizing the information from other sources and they are not familiar with the functional features of citation (Jalilifar, 2012; Jalilifar & Dabbi, 2012; Mansourizadeh & Ahmad, 2011; Yeh, 2012). In their study of textual borrowing practices, Flowerdew and Li (2007) and Li (2007) note that students' citations involve a certain level of language re-use (i.e. passages were pasted from source materials). Moreover, NNEW often find it difficult to choose appropriate reporting verbs for reporting claims; they do not take an appropriate stance towards a claim and tend to use less assertive devices than native speakers (Hyland, 2002, 2008). Besides these findings, it is claimed that NNEW often rely on a limited number of words in introducing the previous works. Similarly, Pecorari (2008) finds that NNEW often randomly choose a reporting verb without a consciousness of the subtleties of language necessary for reporting claims. Hyland (2002) ascribes this problem to both their deficit of vocabulary and their innocence of how to appropriately acknowledge sources in academic writing.

Besides the problems NNEW have, citation practice is reported to vary between different disciplines, genres and even cultures (Harwood, 2009; Hyland, 1999; Jalilifar, 2012; Jalilifar & Dabbi, 2012; Samraj, 2008; Soler-Monreal & Gil-Salom, 2012). Hyland (2000) finds that soft disciplines have a tendency to employ integral citations which place the author in the subject position while hard disciplines display a preference for non-integral ones to downplay the role of the author. In addition, Hyland (1999, 2000, 2002) indicates the disciplinary preference for reporting verbs, i.e. a greater use of *Discourse* and *Cognition* reporting verbs in the humanities and social sciences. He also explains that this tendency reflects the discursive characteristics and a greater role for personal interpretation in knowledge negotiation in these soft disciplines. Petrić (2007), moreover, shows that due to different audiences, writers of research articles (RA) and those of M.A. theses in applied linguistics exhibit distinct citation behaviors. Similarly, two similar studies (Jalilifar, 2012; Jalilifar & Dabbi, 2012) on citations used in the introduction sections of RAs from prestigious journals and in the introduction chapters written by Iranian master's students in applied linguistics shows that different audiences, socially and culturally different contexts, and writers' different purposes of writing lead to different citation behaviors. Furthermore, in their study of the citations used in the literature review chapters of Ph.D. dissertations written by English native speakers and Spanish native counterparts, Soler-Monreal and Gil-Salom (2012) report that citation

behaviors reflect the cultural differences. In particular, English writers are more assertive than their counterparts through their indicating weaknesses of previous studies so as to justify the validity of their contribution while the Spanish tend to avoid personal confrontation and mitigate the strength of their arguments through their use of non-integral citations in passive and impersonal structures. Although these above studies shed light on the citation practice in terms of types, functions and reporting verbs in the literature and especially on the way NNEW cite, there is almost no research which examines all these three citation aspects in M.A. theses written by Vietnamese students. One could argue that such a study was conducted by Jalilifar (2012) and Jalilifar and Dabbi (2012), but little has been known about how their non-native (Iranian) students use reporting verbs to report on the previous research activities as well as to display their evaluation of cited research. Moreover, the stance of the reporting verbs in their research was studied based on Thompson and Ye's (1991) framework, which separates evaluation from reporting, allowing a considerable overlap between categories (Hyland, 2002). The current study, therefore, aims to fill these gaps and hopes to shed more lights on how NNEW cite in the literature.

Given its significance and potential challenges in academic writing, citation has not been formally taught to TESOL master's students in Vietnam. In fact, these writers were provided with the list of conventions of the APA citation style and they themselves figured out how to appropriately cite the previous studies in their texts. However, Mansourizadeh and Ahmad (2011) emphasize that due to various purposes of citation use, novice writers cannot fully learn crucial citation practices from their mere reading of the instructions. Moreover, like the situation described in Jalilifar (2012), the ways M.A. students in the TESOL discourse community in Vietnam cite and the types of citation used in their writing would be of their supervisors' secondary concern as they know that in the defense session, their supervisees' deployment of citation is not judged by the thesis examiners. This study, therefore, aims to explore how these Vietnamese M.A. students deployed citations in terms of types, functions and reporting verbs by starting with the introduction chapters first. Such investigations on citation in this study hope to provide an insightful description of citation practice in TESOL M.A. theses in Vietnam and confirm the claims about the cultural, disciplinary, and genre specific characteristics of citation practices (Harwood, 2009; Hyland, 1999, 2002; Jalilifar, 2012; Jalilifar & Dabbi, 2012).

## 2. Data and data analysis

### 2.1 Data

The introductions of 24 electronic TESOL master's theses written during the 2009–2012 period by Vietnamese students were employed as data for the current study. They were randomly obtained with the writers' consent and from all three universities providing this master's program (eight from each) in the South of Vietnam. For the ease of reference and the anonymity of thesis writers, each introduction was also randomly coded from I1 to I24.

### 2.2 Data analysis

#### 2.2.1 Frameworks for analyzing citation types, functions and reporting verbs

Due to its comprehensiveness in terms of the combination of both the syntactic position and semantic function of a citation, Thompson and Tribble's (2001, pp. 95-96) framework was chosen as the instrument to analyze the citation types and functions in this introduction corpus. Integral citations in their classification are divided into three categories:

1. Verb controlling: The citation acts as the agent that controls a lexical verb, in active or passive voice, as in:

*Davis and Olson (1985) define a management information system as...*

2. Naming: The citation is a noun phrase or part of a noun phrase used to signify a method, formulation or someone's work instead of a human agent.

*Typical price elasticities of demand for poultry products in Canada, Germany and the UK are shown in Harling and Thompson (1983).*

3. Non-citation: The citation is a reference to another writer but the name is given without a year reference because the reference has been supplied earlier in the text and the writer avoids repeating it.

*The "classical" form of the disease, described by Marek, causes significant mortality losses.*

Non-integral citations are classified as follows:

1. Source: This citation indicates where the idea or information is taken from  
*Citation is central... it can provide justification for arguments (Gilbert, 1976).*
2. Identification: It identifies an agent within a sentence it refers to  
*A simulation model has therefore been developed ... (Potts, 1980).*
3. Reference: This type of citation is usually signaled by the inclusion of the directive “see”.  
*DFID has changed its policy recently with regard to ELT (see DFID, 1998).*
4. Origin: This citation indicates the originator of a concept, technique, or product.  
*The software package used was Wordsmith Tools (Scott, 1996).*

For the reporting verbs, Hyland’s (2002) insightful classification of reporting verbs was selected to study the process categories of the reporting verbs, namely *Research*, *Cognition* and *Discourse* acts and their subset of evaluative options which allow writers to present the reported information as true (**factive**) (e.g. *acknowledge*, *point out*, *establish*), as false (**counter-factive**) (e.g. *fail*, *overlook*, *exaggerate*, *ignore*) and **non-factive**, giving no clear signal (Appendix A). Due to its being revised several times from his previous work (1999), which was in turn based on Thompson and Ye’s (1991), his new framework is comprehensive in terms of its simplicity in delineating the various denotative categories and evaluative potentials of reporting verbs while Thompson and Ye (1991) separated evaluation from reporting, allowing a considerable overlap between categories. Moreover, compared with Hawes and Thomas (1994), Hyland’s (2002) framework maintains a clear distinction between reporting and reported writers in identifying the source of the evaluative load.

### 2.2.2 Procedures for citation analysis

Citation types were first searched on the Antconc concordance with the use of the Regular Expressions (Regex) which were written for both the conventional and “invented” citing ways by this group of writers. In fact, it was found that this group of Vietnamese writers had their own citing ways, especially in citing Vietnamese scholars. In order to capture all citations included in the corpus, the researchers scanned through all the texts, noted their “invented” citing ways, and then new Regex were subsequently created if their “invented” citing ways have been found in the corpus. The key word “cited” was also employed in searching for the citation types because a number of secondary citations were noticed. Based on Thompson and Tribble’s (2001) framework and with a

careful investigation on the context of each citation shown in the concordance lines, the citation types and functions were carefully classified. However, for identifying citation types, Hyland's (2000) criteria were followed. That is after the first citation was counted, each occurrence of another author's name was counted as one citation, regardless of whether or not it is followed by the year of publication. In addition, in cases where more than one work was cited for a particular statement, only one instance was counted because the count indicates that a citation has been made, but not whether it is a single or a multiple reference citation (Mansourizadeh & Ahmad, 2011). Moreover, expressions which did not point to a specific author or source, such as "some authors" or "Marxists" were ignored (Hyland, 2002). After citation types and functions were classified, the verbs in citing sentences and those in the further discussions of a previously mentioned author in expressions like "this theory" or 'their definition', or "he/she" or "they" which referred to previously cited authors were investigated. Drawing on Hyland (2002), the reporting verbs were classified in terms of the types of activities and their evaluative potentials. For the evaluative possibility of each reporting verb, its specific context in the concordance lines was also examined. Finally, the occurrences of citation types, their functions and reporting verbs were first calculated (per chapter and per 1,000 words) and then compared with those in the literature.

### *2.2.3 Reliability of Citation Analysis*

First, the Regex were checked by an expert to ensure the accuracy of the search patterns. For the citation types, the researchers manually counted the citations used in each introduction and the counted number was compared with the results shown on the concordance lines (Antconc). This method of validation helped not only to check accuracy of the Regex, but also to identify the possible discrepancy between the actual number of citations and those shown in the concordance lines. Regarding citation functions and reporting verbs, their employment in six introductions (25%) analyzed by each researcher individually was compared. Then, two researchers worked out the coding disagreements until a satisfactory level of coder agreement was attained. After that, the two researchers analyzed their use in the other introductions in the corpus.

## **3. Results and discussions**

### *3.1 Citation types*

With a total of 231 citations in the corpus of 40,080 words, an average of almost 9.63 references each (Table 1), it is clear that there is a relative number of citations used in these M.A. thesis

introduction chapters. This seems to confirm the relatively low frequency of citations in Linguistics introduction chapters, as compared to Biology and Philosophy, in Samraj's study (2008). However, in comparison with the study on citations in applied linguistics introduction chapters written by Iranian M.A. students (Jalilifar & Dabbi, 2012), there is a great disparity in the average number of citations per chapter and per 1,000 words between these two corpora. The ways of counting citations between these two studies could be attributed for this difference. In particular, in their study, each occurrence of a researcher's name was counted as a citation while the current study recorded multiple references as one instance in cases where they were cited for a particular statement. However, the insufficiency of reference resources would be another possible explanation for this finding. In fact, besides 22 instances (9.5%) of secondary sources, previous M.A. theses and quite-dated books were found to be the main sources of almost all of references used in these chapters. Besides this, the number of citations used among these introductions varied greatly, and almost half of these introductions contained a couple of citations (Appendix B). Moreover, the citations were mainly found in Move 1, *Establishing a territory*, of the introductions. These findings may reflect these writers' unawareness of the various rhetorical functions of citing previous research in introductions. As indicated in Samraj (2002) and Swales (1990, 2004), the review of literature is obligatory and present throughout the introduction because a discussion of previous research provides a topic generalization (Move 1), justifies the research gap being created (Move 2) and specifies the goal of the study (Move 3).

**Table 1: Citation types in introduction chapters**

	Integral		Non-integral		Total	
	TESOL theses in Vietnam	Jalilifar & Dabbi (2012)	TESOL theses in Vietnam	Jalilifar & Dabbi (2012)	TESOL theses in Vietnam	Jalilifar & Dabbi (2012)
Introduction chapters	122	699	109	435	231	1134
Percentage	52.8	61.6	47.2	38.4	100	100
Average per chapter	5.1	43.6	4.54	27.2	9.63	17.44
Average per 1000 words	3	8.8	2.7	5.5	5.76	14.19

**Table 2: Chi-square test result**

	Integral	Non-integral	X <sup>2</sup>	df	Sig
Theses	122	109	231	1	.000

As also shown in Table 1, these Vietnamese writers employed a relatively equal proportion of the two citation types (52.8% and 47.2 %, respectively), and the Chi-square value on the SPSS (version 19) (Table 2) indicated that their difference is statistically significant ( $X^2 = 231$ ,  $df = 1$ ,  $p < .001$ ). Iranian counterparts, in contrast, used almost twice more integral citations than non-integral ones in their introduction chapters. Charles (2006) claims that the use of integral/non-integral citations is partly influenced by citation convention, genre, discipline, and individual style. Iranian M.A. students' citation practice is thus genre-specific as this citation type is reported to be sufficient for them to show their familiarity with the knowledge in their field (Jalilifar & Dabbi, 2012; Petrić, 2007). The relatively equal use of two citation types by these Vietnamese M.A. students, on the other hand, tends to suggest that they were skilled writers because they drew on information, concepts and authors equally. However, a closer look at the texts in which two citation types were equally employed revealed that they were inexperienced in reviewing the literature. As shown in Example 1 below, integral and non-integral citations were separately used in different paragraphs reviewing different aspects of the research topic. Moreover, the writer simply summarized and integrated previous studies into his writing as a list of findings, without any subjective interpretation. Such a separate and descriptive nature of citing previous studies identified in a majority of current introductions by these Vietnamese students could indicate that they were aware of using these two citation types in their texts, but they were inadequately familiar with functions that the different citation forms serve. This finding tends to confirm the claim by Mansourizadeh and Ahmad (2011) that NNEW cannot fully learn crucial citation practices through their mere reading of instructions.

*(1) The main objective of English language education... to teach students to read English books (Wei, 2005). However, reading involves a variety of factors, which.... Some of these factors are: learners' lack of target language proficiency and vocabulary (Kasper, 1993), unfamiliarity with the content and/or formal schemata of the texts to be read (Carrell and Floyd, 1987) and inefficient reading strategies (Carrell, 1989)...(I11)*

*In a review of the developments in second language reading research, Grabe (1991) pointed out that..... Levine, Ferenz and Reves (2000, p.1) stated that..... Shuyun and Munby (1996) noted that .... (I11)*

### 3.2 Citation functions

As shown in Table 3, the proportions of integral citation functions in the current corpus are similar to those in Jalilifar and Dabbi (2012) in which *Verb controlling* was the most frequent function (85%), followed by *Naming* (15%), and *Non-citation* (3%). For the *Verb controlling* type, all started with the name(s) of the author(s), followed by a reporting verb. This citing practice tends to be the easiest for this group of Vietnamese writers to incorporate others' works into their texts. To provide a strong support for the propositions within the cited texts is likely to be the single communicative purpose that these Vietnamese writers pursued in placing the previous researchers' names at the beginning of the sentence.

**Table 3: Function distributions in integral citations**

<b>Integral</b>	<b>TESOL theses in Vietnam n(%)</b>	<b>Jalilifar &amp; Dabbi (2012) n(%)</b>
Verb controlling	100 (82.0)	453 (64.8)
Naming	18 (15.0)	189 (27.04)
Non-citation	4 (3.0)	57 (8.16)
Total	122 (100.0)	699 (100.0)

Close inspection of *Naming* citations in these introductions in the concordance lines revealed a limited number of structures used to place the emphasis on the work of previous researchers. In fact, among 18 instances, eleven followed the pattern “*According to X (year)*”, and the other seven instances were expressed in “*in X’s (year) study/ theory*”, (Example 2), and in “*by X (year)*” (Example 3). Moreover, mistakes were found in the use of this citing function, (Examples 2 and 4) and this could be due to these thesis writers' linguistic deficiency.

(2) *In Nguyen’s (2010) study, she indicates that....* (I14) (**Correction:** In her study, Nguyen (2010) indicates that...)

(3) *Up to now, there have been many studies on using games in ... such as those by Huynh (2007), Leman (1998), Nguyen (2006), Nguyen and Khuat (2003), and Uberman (1998)* (I4)

(4) *According to Wilkins (1972), he emphasized ‘Without grammar very little can be conveyed, without vocabulary nothing can be conveyed’....* (I10) (**Correction:** According to Wilkins (1972), vocabulary plays an important role in learning a foreign language)



“Non-citation” is still far less than *Verb controlling*, and this gap indicates that very few further discussions on the previously mentioned author/work were provided by this group of writers. As shown in Table 4, attributing information to an author (*Source*) is these writers’ single purpose in the employment of non-integral citations in their introduction chapters (100%). This finding confirms previous studies (Jalilifar & Dabbi, 2012; Petrić, 2007), and Petrić (2007) accounts the most frequent use of this citation in student writing for its simplicity and its sufficient potential in helping students to display their knowledge and their familiarity with the literature. As shown in Example 5, however, the research problems/gaps were indicated after the topics of previous research were listed. This writing practice in academic texts by these M.A. students is referred to as “patch-writing” by Howard (1995, p. 233) and he suggests that this should be seen as a common developmental strategy in learning academic writing.

**Table 4: Function distribution in non-integral citations**

Non-integral	TESOL theses in Vietnam n(%)	Jalilifar & Dabbi (2012) n(%)
Source	109 (100.0)	369 (84.82)
Identification	0 (0.0)	42 (9.82)
Reference	0 (0.0)	8 (1.83)
Origin	0 (0.0)	16 (3.67)
Total	109 (100.0)	435 (100.0)

(5) *In Vietnam, it is known that there have been many studies done on teaching and learning vocabulary recently, for instance the use of games in teaching vocabulary (Nguyen, Vu Thuy Tien, 2006 & Huynh, Huu Hanh Nguyen, 2007), the effectiveness of applying computer aids in teaching vocabulary (Pham, Thi Thuy Van, 2006), an investigation on vocabulary learning strategies of English majors (Huynh, Thi Bich Van, 2007), effective strategies for teaching and learning vocabulary (Tran, Van Duong, 2008), difficulties in teaching vocabulary to students of information technology at Thanh Hoa Teachers’ Training school (Vo, Mai Do Quyen, 2008). However, none of them have concentrated on the context of FLC-USSH. (I8)*

The intensive use of *Source* function aside, the way these Vietnamese writers cited in non-integral citations tends to be ignored because four instances were found to include a long web link (Example 6). The inclusion of a web link, their inconsistency in citing Vietnamese authors, and their grammatical mistakes (Examples 2 and 4) suggest that an increased amount of form-based instruction on citing practice is needed to help this group of writers in Vietnam.

(6) *English is the most widely used international language all over the world* (Crystal, 1997 & [http://en.wikipedia.org/wiki/English\\_language](http://en.wikipedia.org/wiki/English_language)),.... (I16)

The absence of the other citation functions (*Identification*, *Reference*, and *Origin*) in the non-integral citations in this corpus is likely to indicate these Vietnamese writers' unfamiliarity of the functional features of citations on the one hand. On the other hand, Yeh (2012) indicates that less experienced students are less capable of articulating subtle citation functions, perhaps due to their insufficient training and language proficiency although they notice the different citation patterns in their readings. Therefore, explicit instructions on citations should be given to this group of Vietnamese writers in order to raise their awareness of various rhetorical functions of citations because using them properly will help facilitate the acculturation of these writers into their disciplinary discourse.

### **3.3 Reporting verbs**

#### *3.3.1 Denotative/Process categories*

Table 5 below shows the division of reporting verbs according to their denotative/process categories used in the introduction chapters of TESOL M.A. theses in Vietnam. The findings of this study are in accordance with those in Dontcheva-Navratilova (2008) and Hyland (2002) in which *Discourse* reporting verbs were the preferred ones (66.67 %) of a total of 111 reporting verbs found in this corpus. The greater use of *Discourse* verbs, as explained in Hyland (2002), characterizes the discursive nature of soft disciplines to which the field of this target corpus, TESOL, belongs. These *Discourse* verbs used in integral citations with the name(s) of scientist(s)/researcher(s) at the subject position as the departure of the message, thus, help these Vietnamese writers raise their voice through the voice of a precedent authority in the field. Paltridge (2006) indicates that this textual structure gives the prominence to the subjects or themes of the sentences and it is, therefore, likely that this preferred referencing style helps the writers in this academic community in Vietnam strengthen and establish the niche for their current study.

**Table 5: Distribution of verbs in process categories**

Categories	Occurrences (TESOL theses in Vietnam)			Percentage comparisons with previous studies		
	Frequency counts	Average per chapter	Average per 1,000 words	TESOL theses in Vietnam	Dontcheva-Navratilova (2008)	Hyland (2002) Applied Linguistics
Research Acts	30	1.25	0.75	27.03	16.9	30.5
Cognition Acts	7	0.29	0.17	6.3	20.4	10.5
Discourse Acts	74	3.08	1.85	66.67	62.7	59
<b>Total</b>	111	4.63	2.77	100 %	100 %	100 %

The infrequent use of reporting verbs in the groups of *Research* and *Cognition* acts (27.03 % and 6.3 %, respectively) found in this introduction corpus also accords with the distribution of these two groups of reporting verbs in applied linguistics by Hyland (2002). However, this finding is different from that of Dontcheva-Navratilova (2008), in which more *Cognition* than *Research* reporting verbs were found due to the absence of the Method sections in their theses. Unlike Dontcheva-Navratilova's (2008) thesis corpus, TESOL M.A. theses in Vietnam are experimental; it is not surprising to see the higher percentage of *Research* verb occurrences in this corpus. Moreover, the result about the process categories of reporting verbs in the current corpus was also found to be different from that of Jirapanakorn (2012) in her study of medical RA introductions written by Thai writers in which *Experimental/Research* verbs were most frequently used, followed by *Discourse* and *Cognition* verbs. This disparity is due to the disciplinary differences in citing conventions. In fact, since most medical RAs are experiment-based (Nwogu, 1997), it is not surprising that her finding confirmed that of Hawes and Thomas (1994) in their study of medical RAs.

### 3.3.2 Evaluative Categories

It can be seen in Table 6 that these Vietnamese writers tended to take an explicit stance towards the cited sources through their preferred use of factive reporting verbs in both describing the findings and supporting their own argument by attributing a high degree of confidence to the proposition by the original author (36.94 %). In other words, by employing factive reporting verbs, the writers signaled their acceptance of prior cited research and directly bolstered their own views on the reported topic. The non-factive reporting verbs, which comment on the research findings and inform readers of the authors' positions to the cited claim neutrally, accounted for 29.73 % of the reporting verbs in this introduction corpus. However, this finding contradicts with those of previous

studies (Dontcheva-Navratilova, 2008; Hyland, 1999, 2002; Jalilifar, 2012) in which non-factive reporting verbs were found to prevail. Jalilifar (2012) also attributes the prominent use of non-factive reporting verbs in the introduction sections of M.A. theses and RAs to the communicative purposes of these sections where writers are less likely to reflect their evaluation in order to situate their research results in relation with the works of others. The factive-reporting-verb preference by this group of Vietnamese writers may be due to their being unaware of this subtle aspect of reporting verbs as stated by Bloch (2010) or their not being taught about the use of this “occluded” citation feature (Pecorari, 2006).

**Table 6: Classification of reporting verbs according to denotation and evaluation**

<b>Research Acts</b> 30 (27.03 %)	Findings 16 (14.41%)	Factive 6 (5.41%) Counter-factive 1 (0.9%) Non-factive 9 (8.11%)
	Procedures 14 (12.61%)	
<b>Cognition Acts</b> 7 (6.3%)	Positive 1 (0.9%)	
	Critical	
	Tentative 3 (2.7%)	
	Neutral 3 (2.7%)	
<b>Discourse Acts</b> 74 (66.67%)	Doubt 13 (11.72%)	Tentative 13 (11.72%) Critical
	Assurance 59 (53.75%)	Factive 35 (31.53%) Non-factive 25 (22.52%)
	Counters 1 (0.9%)	

Besides their preference for factive reporting verbs, these Vietnamese writers avoided explicit rebuttal of other researchers through their avoidance of using counter-factive and critical verbs. Besides the differences in relation to power among thesis writers and examiners as indicated in Koutsantoni (2006), their avoidance of refuting and criticizing previous research partly reflects Vietnamese cultures in which all forms of confrontation should be avoided as taught by the philosophies of Taoism and Confucianism (Nguyen, 2002). In fact, only two instances of negation reporting verbs, “*not study*” and “*oppose*”, were found in this introduction corpus and they were used to portray the previous research gap (Example 7a) and to ascribe the cited author as holding a negative stance to the reported information (Example 7b). Hyland (2002) states that explicit refutation of other researchers is “a serious face-threatening act” in academic writing; it is used with a great consideration of the rhetorical value to accomplish (p. 124). In Example 7b, the writer drew on McCarthy’s refutation on the benefits that learners can receive from their *schooling* in order to support her view on the importance of *learner autonomy*. It is clear that the rhetorical strategy employed in using the *Discourse-Counter* reporting verb (*oppose*) by this writer aimed to support

her own view on the reported topic (*learner autonomy*), but she attributed the objection to the correctness of the reported message (*benefits of schooling itself*) to McCarthy, instead of taking responsibility for her own evaluation. Because “*not study*” and “*oppose*” are not included in Hyland’s (2002) classification of reporting verbs, they are added into their respective groups in his framework (Appendix A).

(7a) *Up to now, there have been many studies on using games in teaching and learning vocabulary such as those by.... However, these researchers have **not studied** and emphasized the use of games to enhance students’ motivation in vocabulary learning yet.* (I4) (Research acts: Finding, counter-factive)

(7b) *McCarthy (1998) also **opposed** this relying too much on schooling because “no school, or even university, can provide its pupils with all the knowledge and the skills they will need in their active adult lives.”* (I18) (Discourse acts: Counters)

### 3.3.3 Verb Forms

Unlike Pickard’s (1995) assumption about the overuse of the reporting verb “*say*” by ESL writers, the most common verb in the current introduction corpus written by Vietnamese M.A. students is “*state*”, followed by “*find*”, “*develop*”, “*suggest*”, “*point out*”, “*assert*”, “*confirm*” and “*indicate*” (Appendix C). This finding does not confirm Hyland’s (2002), where “*argue*”, and “*suggest*” were found to be present in 100%, and 82% of all cases, respectively, in the social sciences and humanities. Moreover, it is surprising to see a very small number of reporting verbs used in the corpus (44 verbs) and half of them occurred only once. This could be due to these writers’ vocabulary shortage and they tended to randomly choose a reporting verb without being aware of the rhetorical strategies needed for weaving the reported claims with their own perspectives through their use of reporting verbs. In fact, instead of commenting on the reported information through the employment of reporting verbs, a majority of these Vietnamese writers were likely to objectively report the information by using one different reporting verb for one prior study and this seems to be their strategy of avoiding the repetition of reporting verbs, as illustrated in Example 1, page 9. Although this way of using reporting verbs by this group of Vietnamese writers helps them to display their sufficient knowledge in their field, it does not help to establish the credibility of their claim, which is considered as ineffective in writing for publication.

Since some reporting verbs found in this corpus have not been included in Hyland's (2002) classifications, they are added into his category, depending on their denotative and evaluative loads identified in this introduction corpus (Appendix A). However, these added words are limited to their occurrences found in this corpus alone. In terms of *Research* acts, besides the verbs with clear semantic denotations; namely, "*prove*", "*present*" or "*investigate*", the verb "*uncover*" is classified into non-factive *Finding* research verbs because the writer did not indicate a clear attitudinal stance to the reported research finding (Example 8).

(8) *That failure of schooling was addressed by Illich (1971), who **uncovered** "a major illusion on which the school system rests is that most learning as a result of teaching" (p. 12). (I18)*

For the *Cognition* acts, the verbs "*consider*" and "*mean*" are added to the tentative group (9a) while "*notice*" is grouped into the neutral one (9b), and "*figure out*" is put into the positive group (9c) due to writers' attributing a tentative view, a neutral attitude and an acceptance of the truth to the reported claims to the cited authors, respectively.

(9a) *The emotional uneasiness may increase more and more with oral presentation test in the target language. Likewise, Day (1991) **meant** this emotional barrier would occur to both successful and unsuccessful EFL learners. (I14) (tentative)*

(9b) *David Nunan (2000) also **noticed** a mismatch between the knowledge teachers wanted to transmit to learners and that learners actually wanted to achieve, which resulted in learners bad learning outcomes. (I18) (neutral)*

(9c) *Ngoc Dung (2011) **figured out** the main reason for learners' failures in study which was at learners' lack of autonomy in learning. (I18) (positive)*

In terms of *Discourse* verbs, 17 newly identified verbs in the corpus are added to Hyland's (2002). Under the *Doubt* reporting verb group in *Discourse* acts, the verbs "*imply*", "*comment*", and "*mention*" are added since the writers conveyed a certain level of uncertainty in their interpretation of the reported message, as in (10a), (10b) and (10c).

(10a) *Likewise, Jiang (2000) **implies** that it is impossible to teach the target language without teaching the target culture. (I1)*

(10b) Moreover, Wang (2005, p.1) **comments** in a language course, success depends less on materials, teaching techniques and linguistic analysis but more on what goes on inside and between the people in the classroom.(I14)

(10c) Similarly, Jeon (2005) **mentioned** oral presentation is one of the important academic skills required in university contexts. (I14)

Regarding *Discourse* acts, besides the verbs with clear semantic denotations such as, “*assert*”, “*support*”, “*emphasize*”, “*insist*”, “*advocate*”, “*proclaim*” and “*stress*” (*Discourse* acts: Assurance, factive), and “*say*”, “*address*”, “*write*” and “*conclude*” (*Discourse* acts: Assurance, non-factive), illustrations below are on the verbs found to have their own specific meanings in the given contexts. First, the verb “*confirm*” was firstly used as a factive *Finding Research* act as indicated in Hyland (2002), but it was later employed as a factive Assurance *Discourse* verb, as in (11a). This verb is, therefore, newly added into Hyland’s (2002) factive Assurance group of *Discourse* acts. Moreover, it is interesting to see how the action verb “*put*” was used as a reporting verb by these Vietnamese M.A. students. In (11b), “*put*” was used as a factive Assurance *Discourse* verb, which the writers used to support their own views with a high degree of confidence given to the proposition by the original authors (Ellis and Nguyen).

(11a) Anxiety stands out as an important factor for effective learning. This factor has been **confirmed** by Krashen’s (1982) well-known theory of Affective Filter”. He **confirms** that such emotional barriers like apprehension, nervousness and worry hinder language learners’ acquisition. (I14)

(11b) As Ellis (1985) **put** it, a complete account of second language acquisition (SLA) involves both showing how the input is shaped to make it learnable (an inter organism perspective) and how the learner works on the input to turn it into intake (an intra – organism perspective) (p.163) (I11)

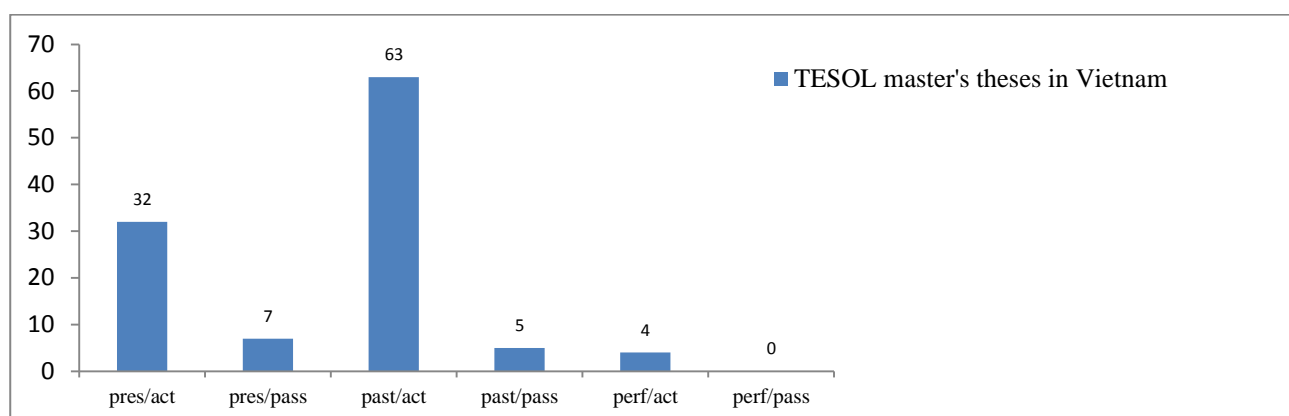
### 3.3.4 Tense and Voice

As shown in Table 7, the past simple is by far the most frequent choice of tenses, accounting for almost two thirds of the reporting verbs used in these introductions (61.3%). It is followed by the present simple (35.1%) and present perfect (3.6%). Actually, it is the introduction where the writers

provide general information about their topics, make claims about their topic importance and establish the niche for their current research to be situated by reviewing previous studies. The employment of the present simple and present perfect is, therefore, expected to be prominent in the introduction chapters in order to situate the cited works within the field and to position the reported study in relation to it (Hanania & Akhtar, 1985; Swales, 1990). In other words, the predominant use of the past simple in the introduction chapters of these theses in Vietnam tend to suggest that these writers distanced themselves from the cited work (Swales, 1990) and what they cited is simply reports on past studies. Moreover, this preferred use of past tense reporting verbs in these introduction chapters is not likely to demonstrate the discursive rhetorical style of the field in social sciences (Hyland, 2002).

**Table 7: Tense and Voice of reporting verbs in TESOL M.A. theses in Vietnam**

Tense			Total	Voice	
Present simple	Past simple	Present perfect		Active	Passive
39	68	4	111	95	16
35.1%	61.3%	3.6%		85.6%	14.4%



**Fig. 1: Numbers of instances of tense + voice combination in TESOL M.A. theses in Vietnam**

In terms of voice, it can be clearly seen in Table 7 and Figure 1 that the preferred voice is active and it is not surprising to see active voice was most commonly combined with past aspect (63 past/act), followed by its combination with the present simple (32 pres/act). The active preference for reporting verbs by this group of non-native writers in Vietnam was used to emphasize the researchers/authors by placing them in the theme position of the sentence. However, it could be argued that the emphasis given to the researchers/authors by these Vietnamese writers through their preferred use of *Discourse*, active-voice reporting verbs combined with the past tense in integral



citations is not effective in providing their persuasive arguments in order for their reported research niche to be established in the introduction chapters.

#### 4. Conclusions

This study of citations in 24 TESOL M.A. thesis introduction chapters written by Vietnamese has revealed some useful information about Vietnamese M.A. students' citing practice. In terms of citation types, an unexpectedly low average number of references and a relatively equal number of integral and non-integral citations separately used were found. Moreover, besides a presence of almost 10% of secondary citations and limited sources of cited works, a great variation in the number of citations used among these introductions (from 0 to 33), some invented citing ways and grammatical mistakes was also found in this introduction corpus. The writers' personal preference and the citation-counting method in this study aside, these findings could reflect these students' linguistic inadequacy, the lack of reference resources and the negligence of how they cite in the TESOL discourse community in Vietnam.

With respect to the citation functions, the *Verb controlling* and *Source* were the two most dominantly used functions in integral and non-integral citations in this corpus (82% and 100%, respectively). This finding suggested that these two functions are simple for these novice writers to incorporate into the texts and they are sufficient for them to display their knowledge of the topic and to show their familiarity with the topic under investigation. Limited citation functions aside, this study also found the separate and listing nature, instead of an argumentative style, of citing previous studies by these thesis writers. This strategy tended to be ineffective since it was mostly employed to list what has been done before without providing further discussions on the cited works, and then establish the research space for their reported study.

Finally, the findings on the reporting verbs used in these introductions showed the most frequent use of *Discourse* reporting verbs (68.3%) and the preferred use of factive reporting verbs (38.2%) in both describing the findings and supporting their own argument by attributing a high degree of confidence to the proposition by the original author by these Vietnamese writers. Although their major use of *Discourse* verbs affirmed the discursive nature of the soft disciplines (Hyland, 2002), their preference for factive verbs and their past tense-active voice combined practice could account for their unawareness of the subtle aspect of this occluded citation feature, the evaluative potentials of reporting verbs (Bloch, 2010; Pecorari, 2006). Furthermore, these writers' avoidance of using

counter-factive and critical verbs tended to reflect their cultural values in which personal confrontation with others is avoided.

Despite the small scale of study and the fact that it was conducted in a move-related approach as recent studies on citations (Kwan & Chan, 2014; Samraj, 2013), the findings of this paper, to a certain extent, can provide a general picture of how Vietnamese writers cite in their M.A. theses. As citations and reporting verbs help them to appropriately integrate other people's works and ideas into their writing and to present their study persuasively, effort should be made to familiarize them with the variety of functions and the rhetorical effects that citations and reporting verbs can have on their academic writing. For example, classroom matching exercises with clear examples of different rhetorical functions of citation and the corresponding functions, text analysis tasks where students discuss the writer's intentions behind citation use or a concordance-based approach (e.g. Bloch, 2010) can be used to provide future Vietnamese thesis writers with opportunities to experience the citing practice. Moreover, an appropriate amount of explicit, form-based instruction with a clear focus on the lexical grammatical aspects of citations in terms of accurate structures and appropriate reporting verbs may need to be introduced into the classroom. With raised awareness of this rhetorical practice, these writers can become sensitive to subtleties of citation types and functions and of evaluative potentials of reporting verbs and they can use them in a conscientious and effective manner in their future academic writing.

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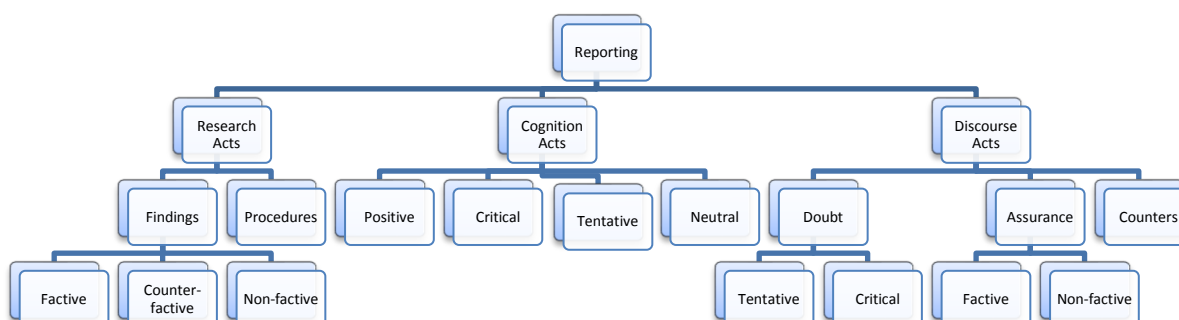
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## APPENDICES

### APPENDIX A: CATEGORIES AND LISTS OF REPORTING VERBS IN SHOWING ACTIVITY AND EVALUATION

(Hyland, 2002, pp. 118-121)



#### Research verbs :

##### - Findings:

- + Factive: demonstrate, establish, show, solve, confirm (prove)
- + Counter-factive: fail, misunderstand, ignore, overlook (not study)
- + Non-factive: find, identify, observe, obtain (present, reveal, uncover, discover)

-Procedures: analyze, calculate, assay, explore, plot, recover, review, study, replicate, compare, (investigate, perform, set up, define, conduct, develop, carry out)

#### Cognition verbs

- Positive: agree, concur, hold, know, think, understand (figure out)
- Critical: disagree, dispute, not think
- Tentative: believe, doubt, speculate, suppose, suspect (consider, mean)
- Neutral: picture, conceive, anticipate, reflect (notice)

#### Discourse verbs:

##### - Doubts:

- + Tentative: postulate, hypothesize, indicate, intimate, suggest, (imply, comment, mention)
- + Critical: evade, exaggerate, (not) account, (not) make point

##### - Assurance:

- + Factive: argue, affirm, explain, note, point out, claim (confirm, assert, support, advocate, emphasize, stress, put, insist, proclaim)
- +Non-factive: state, describe, discuss, report, answer, define, summarize (say, address, write, conclude)
- Counters: deny, critique, challenge, attack, question, warn, refute, rule out (oppose)

\* Notes: The verbs in brackets were found in the M.A. thesis Introduction corpus in Vietnam

## APPENDIX B: DISTRIBUTION OF CITATIONS IN INTRODUCTION CHAPTERS OF EACH THESIS

Thesis	Integral	Non-integral	Thesis	Integral	Non-integral	Thesis	Integral	Non-integral
<b>I1</b>	11	8	<b>I9</b>	0	3	<b>I17</b>	5	2
<b>I2</b>	2	1	<b>I10</b>	4	1	<b>I18</b>	13	3
<b>I3</b>	7	1	<b>I11</b>	9	7	<b>I19</b>	11	6
<b>I4</b>	4	15	<b>I12</b>	5	4	<b>I20</b>	2	1
<b>I5</b>	1	7	<b>I13</b>	8	3	<b>I21</b>	5	3
<b>I6</b>	1	1	<b>I14</b>	17	16	<b>I22</b>	3	7
<b>I7</b>	3	5	<b>I15</b>	0	0	<b>I23</b>	0	1
<b>I8</b>	8	7	<b>I16</b>	2	6	<b>I24</b>	1	1

## APPENDIX C: REPORTING VERBS IN THE INTRODUCTION CHAPTER CORPUS

1. state (14)	12. comment (3)	23. prove (1)	34. agree (1)
2. find (8)	13. mention (3)	24. conclude (1)	35. consider (1)
3. suggest (7)	14. emphasize (3)	25. argue (1)	36. uncover (1)
4. develop (7)	15. support (2)	26. oppose (1)	37. address (1)
5. point out (6)	16. examine (2)	27. proclaim (1)	38. define (1)
6. assert (5)	17. affirm (2)	28. use (1)	39. write (1)
7. confirm (5)	18. stress (2)	29. mean (1)	40. postulate (1)
8. indicate (4)	19. say (2)	30. report (1)	41. discover (1)
9. claim (3)	20. put (2)	31. imply (1)	42. carry out (1)
10. show (3)	21. note (2)	32. present (1)	43. not study (1)
11. discuss (3)	22. notice (2)	33. conduct (1)	44. figure out (1)

\* The number in brackets indicates the times of verb occurrences in the introduction chapters of TESOL M.A. theses in Vietnam





## **Self-regulated learning: Effect on genre-based research article reading for underprepared graduate students**

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### **Abstract**

Explicit genre-based instruction is widely employed in academic language courses. However, research has faced the lack of examining the learning process and learners to better measure up its promise as an effective approach for underprepared learners. Instruction on self-regulated learning (SRL) which stressed the significance of self-efficacy, goal setting, action control and cognitive strategies for less successful learners in domain-specific learning process has been recently advocated for solving this problem. Employing a quasi-experimental design, this study conducted independent *t*-tests, paired *t*-tests, and correlation tests to examine the effect of integrating explicit genre-based research article (RA) reading within an SRL framework. A self-designed homework protocol was also used as a quantitative method to explore how underprepared graduate students construct their genre knowledge to facilitate reading. Results showed that a self-regulatory approach to genre-based RA reading instruction can be effective for underprepared EFL graduate students.

With only genre-based reading instruction, these learners may not be able to use genre knowledge to activate reading comprehension unless this knowledge is linked with appropriate goal setting, strategic process and outcome monitoring and greater efficacy. Implications for genre-based pedagogy and research are discussed.

**Keywords:** English for Academic Purposes (EAP), self-regulated learning (SRL), genre-based research article (RA) reading, underprepared graduate students

## 1. Introduction

The reports of Swales's (1981, 1990) definition of genres in which members of discourse community across disciplines share common features to express their communicative purposes have promoted considerable interest in the analysis of a variety of genres (Bhatia, 1993; Hyland, 1990; Nwogu, 1991; Santos, 2002; Swales, 2004). The application of genre analysis to language teaching has been very influential in the field of English for Specific and Academic Purposes because genre teaching, as Bhatia (2004) noted, has been increasingly regarded as a vehicle for acquiring or expressing disciplinary knowledge. Although approaches to genre-based pedagogy vary significantly (Belcher, 2004; Hyon, 1996), most ESP genre specialists and practitioners have been explicit about teaching applications (e.g., Badger & White, 2000; Flowerdew, 1993, 2000; Hyland, 2000, 2004; Johns, 1995, 2002; Swales & Feak, 2004; Walker, 1999; Weissberg & Buker, 1990). In this explicit genre-based instruction, the direct teaching of model texts and students' practice of genre analysis have suggested that learning requires imitation and understanding and consciously applying rules of rhetorical functions and linguistic choices of a specific genre.

Explicit genre-based instruction is widely recommended for ESP teaching. Yet, the effectiveness of this approach to teaching genre knowledge has remained controversial (see Basturkmen, 2010; Cheng, 2006; Freedman, 1999) as research evidence has demonstrated its benefits as well as limitations on teaching academic writing and reading. For example, Mustafa (1995) indicated that explicit instruction played an important role in raising students' awareness of term paper conventions but they still found applying these language conventions difficult. Henry and Roseberry (1998) indicated that although the genre group outperformed the non-genre group in producing their own tourist information texts, the genre group did not display adequate improvement in move accuracy. In addition to writing instruction, there have been some researchers who also discussed the impact of explicit genre-based instruction on EAP reading. For example,

following Carrell's (1985, 1992) empirical evidence that reader's awareness of organizational structure facilitates comprehension and recall, Hyon (2001, 2002) pointed out that an EAP genre-based reading course benefited the understanding of rhetorical features in texts and improved reading confidence and speed. However, she observed that the subjects still lacked genre knowledge or adequate strategies to consciously implement the genre features highlighted in the course.

Providing strategy training to meet the demands of reading assignments in postsecondary content class has been the focus of academic reading, of which metacognition is a key component (e.g., Shih, 1992; Anderson, 1999). A considerable amount of literature has been published on metacognition in ESL/EFL reading instruction (e.g., Chamot, 2005; Cotterall & Murray, 2009; Zhang, 2010). Yet, effective instructional interventions that promote learner's metacognitive strategy use in genre-related EAP reading have been more recent. Li and Munby (1996) reported that the traditional approach to general reading comprehension may not be adequate or applicable in EAP reading, and task-specific strategies and instruction of these strategies are needed. Their finding was consistent with Dhieb-Henia's (2003) conclusion that metacognitive strategy training may be an effective teaching tool to equip advanced ESL students with the skills required to read research articles (RA) in their specialty area because students with metacognitive strategy training outperformed students with traditional reading comprehension training in their RA reading proficiency as well as familiarity with this genre. More importantly, to provide a more complete picture of the contribution of strategy instruction, she urged "the need to focus on the reading process and how it relates to the product of reading" (p. 411). In his careful review of genre-oriented studies, Cheng (2006, 2011) also argued for the importance of closely examining learning process and learners to better investigate the effect of genre learning. He suggested that it should be desirable to combine genre-based pedagogy with a more process-oriented approach that examines learners' development of generic-rhetorical consciousness.

The learners in the genre-based EAP studies reviewed above (e.g., Hyon, 2001, 2002; Li & Munby, 1996) are often leveled as advanced students who have a relatively high level of English proficiency and reading skills. However, in many parts of the world, numerous graduate students are, as a matter of fact, underprepared in terms of their academic competence and content-area knowledge. Little research has been devoted specifically to these low-level EFL students who have not developed an adequate level of academic English for content-area knowledge. A few, though not many, genre specialists have verified the need for developing genre-based pedagogy for underprepared learners. Hyland (2011), for example, disputed Spack's (1988) viewpoint that

students who face linguistic and literacy barriers are not recommended to learn EAP. He argued that a specific approach to genre learning might help low-level students to take control of the language they learn.

As the above-reviewed studies have suggested, this specific approach is not merely genre-based instruction but a combined genre-based instruction integrated with a process-oriented approach in which less successful learners are armed with metacognitive strategies and engaged in a learning process and mental activities that help them identify genre patterns and facilitate content comprehension. More research is needed to examine the effectiveness of such methodology for EFL underprepared learners. In this study, the process-oriented approach refers to self-regulated learning (SRL). Thus, the purpose of this study is to explore the effect of integrating SRL with the genre-based approach to teaching academic English for underprepared graduate students with limited reading proficiency. The results of the study can also provide insights into how genre-based self-regulatory processes can help these students acquire metacognitive self-regulation strategies to develop genre awareness and facilitate content comprehension.

## **2. Review of literature on self-regulated learning**

Over the past three decades, self-regulated learning has emerged as an important area of research for understanding less successful students in postsecondary education, where students need to master their own learning process. As Wambach, Brothen & Dikel (2000) observed, academic difficulty of these underprepared students may be less a matter of ability than a failure to take control of the learning process to a sufficient degree. They argued that these students should be provided with self-regulated instruction which provides strategies that they might use to monitor, control, and regulate their cognition and learning. In his investigation into Chinese EFL learners, Zhang (2010) proposed students' metacognitive knowledge as dynamic systems which "necessarily include students' perceptions of self-efficacy and other socioaffective and sociocultural variables closely related to literature on self-regulated learning" (p. 327). Therefore, he suggested that reading instruction should empower less successful learners with metacognitive self-regulation knowledge by providing both cognitive and emotional scaffolding. Zimmerman (1998, 2000) discussed self-regulation and defined it as a self-directive process through which underprepared learners transfer their thoughts, feelings, strategies and behaviors into academic skills, as a way to compensate for their difficulties in learning. The process of self-regulation is largely cyclical in nature and consists of three phases: forethought, performance or volitional control, and self-reflection. For instructional

purpose, these phases are converted into a cyclic model of SRL characterized by four cyclic steps of: (a) self-monitoring and evaluation, (b) planning and goal setting, (c) strategy implementation and monitoring, and (d) strategic outcome monitoring (Zimmerman, Bonner, & Kovach, 1996). In this instructional model, students are expected to initially evaluate their current level of learning on a task, set goals, and adjust or regulate thinking and motivation to achieve academic success. Research findings have strongly supported the effectiveness of using self-regulatory process on academic achievement (e.g., Hattie, Biggs, & Purdie, 1996; Zimmerman & Bandura, 1994; Zimmerman & Martinez, 1988; Zimmerman & Schunk, 2001). Furthermore, researchers have also indicated that linking self-regulation with academic content can be successfully implemented with diverse learners in various settings if they are provided with specific, relevant supports related to both content and cognitive and metacognitive strategies (e.g., Bembenutty, 2011; Dembo & Seli, 2013; Zimmerman, Bonner, & Kovach, 1996).

Although SRL was introduced in psychological literature and made much progress in some other areas (e. g., Baumeister & Vohs, 2004), researchers in language learning perceive the concepts and theoretical underpinnings of self-regulation to be useful, important and relevant to the field of foreign language learning. Focusing on the concept of strategic learning, Dornyei (2005) considered the notion of self-regulation to be less ambiguous, more dynamic and process-oriented than the concept of language learning strategy. Similarly, Cohen (2007) identified self-regulation as a concept closely related to strategy use of language learners and noted that it is the self-regulation model that bridges the gap between psychological and sociocultural perspectives on learner strategies. Calabrese & Faiella (2011) and Hirata (2011), based on the recent theoretical and methodological approaches to foreign language learning, argued that the very nature of language learning requires learners to be self-regulated. It is, therefore, particularly important for language courses to be designed and structured so as to favor SRL. The inclusion of self-regulation becomes even more crucial for effective ESP courses because, as Lynch (2001) and Bruce (2011) noted, learning requires a good degree of self-regulation in the ESP context. In addition, Ching (2002) found that self-regulation instruction could be extended to actual classroom implementation in L2 writing in an ESP context to effectively improve students' self-efficacy and self-determination. Paltridge et al. (2009) also observed that academic writers with self-regulation strategies are able to control or regulate writing processes.

Despite the positive findings of studies linking SRL with language courses, relatively few of them have reported integrating SRL into a genre-based EAP course. Especially, little research has fully

examined the effects of self-regulated EAP reading instruction on EFL graduate students with insufficient academic English and content-area knowledge. As we reviewed the literature earlier, research findings on both genre-based pedagogy (e. g., Cheng, 2006, 2011; Ching, 2002; Dhieb-Henia, 2003; Hyon, 2002; Paltridge et al. 2009) and metacognitive self-regulatory instruction for less successful learners (e.g., Wambach, Brothen & Dikel 2000; Zimmerman & Schunk, 2001; Zhang, 2010) have provided a solid foundation in conducting a combined SRL and genre-based reading study for underprepared EAP learners. The instructional framework of linking self-regulation cycle with genre-based RA reading was further elaborated in Figure 1 in section 3.3.

### **3. Methodology**

#### *3.1 The EFL Context and participants*

The study was conducted in Taiwan, where ESP-based English courses have been gaining much attention and gradually replacing general English courses in the higher education (Tsou, 2009). However, as Chen (2011) pointed out, ESP curriculum is more successfully implemented in national comprehensive universities than private technology universities as a result of ESP teacher availability, educational funding, and student learning characteristics. For more than two decades in my work with technology university students in Taiwan, I have witnessed their struggles with ESP academic reading. They are very different in general aptitude, reading skills, knowledge, and past history of academic success than comprehensive university students. Many of them are unmotivated, passive learners with unsuccessful academic learning experience. As expected, they do not perform well in the General English Proficiency Test, developed and administered by the Language Teaching and Training Center (LTTC) in Taiwan. The LTTC recommends that university students who need to read different types of articles on concrete and abstract topics should have a high-intermediate level of English reading proficiency; nevertheless, most technology university students are often under-intermediate readers who can read only simple short passages. This limited English reading proficiency thus causes their difficulties in reading content-area texts in English.

The participants of the study consisted of 35 graduate students who enrolled in a private technology university in northern Taiwan. They were from the College of Management, majoring in business administration, information technology, or finance. They were assigned to two classes with 20 students in class A and 15 in class B. For the purpose of the study, the quasi-experimental design thus involved the use of the two pre-existing classes: class A as the experimental group and class B as the control group. The students in both classes were similar in age, ranging from 21 to 25 years. To meet the need to read RAs in English in their disciplines, they were required to take the

academic English course for an academic year. As mentioned above, these students with limited English reading proficiency did not master appropriate English reading skills for the requirement. Thus, the course in the first semester was a preparatory class attending to students' mastery of the most important types of academic sentence structures, vocabulary and grammar. The experiment was carried out in the second semester of the academic English course focusing on reading RAs in students' specific fields of study.

At the beginning of the course, students in both groups were given a pre-test on an RA introduction developed by the researcher (as described in the next section). The results of the independent *t*-test displayed no significant difference between both groups in terms of RA introduction genre knowledge ( $t = 1.40$ ,  $df = 33$ ,  $p > .05$ ) even though the control group ( $M = 10.27$ ) performed slightly better than the experimental group ( $M = 8.65$ ).

### *3.2 Teaching materials and genre-based RA reading instruction*

The class met for two 50-minute periods a week over fourteen weeks. No indication was given that one of the classes would be experimental in nature. Both groups were taught by the researcher. The textbook used in both groups was *Writing Up Research* by Weissberg and Buker (1990), a writing-based text interspersed with the reading of model texts and with exercises that enable students to master the rhetorical organization and linguistic features in each section of research articles. The experimental academic English course, however, covered only the Introduction section of the text (pp. 20-89). A learning handout used as supplementary teaching materials was developed by the researcher to provide students with analysis of the communicative purposes reflected in the structure of RA introductions based on Swales' modified CARS model (2004, pp. 244-268). In the handout, the RA introduction structure was identified as text-specific cognitive strategies for genre learning and further categorized into two levels: information structure strategies and linguistic feature strategies. Information structure strategies, represented as the moves and steps in the CARS model, were intended to help students attend to important information elements in texts. Linguistic feature strategies deal with attempts to understand the linguistic units that realize the moves and steps. In this way, the handout serves the purpose of guiding the students in both groups to see the inter-relationships between the rhetorical moves and their associated linguistic choices. For example, the claiming centrality strategy, move 1 step 1 in the CARS model, provides students with the information of the importance of the research topic and also issues in the real world or current problems. The linguistic feature strategy of claiming centrality helps students identify positive connotations associated with *interest* or *importance* such as *a good deal of attention*, *an important*

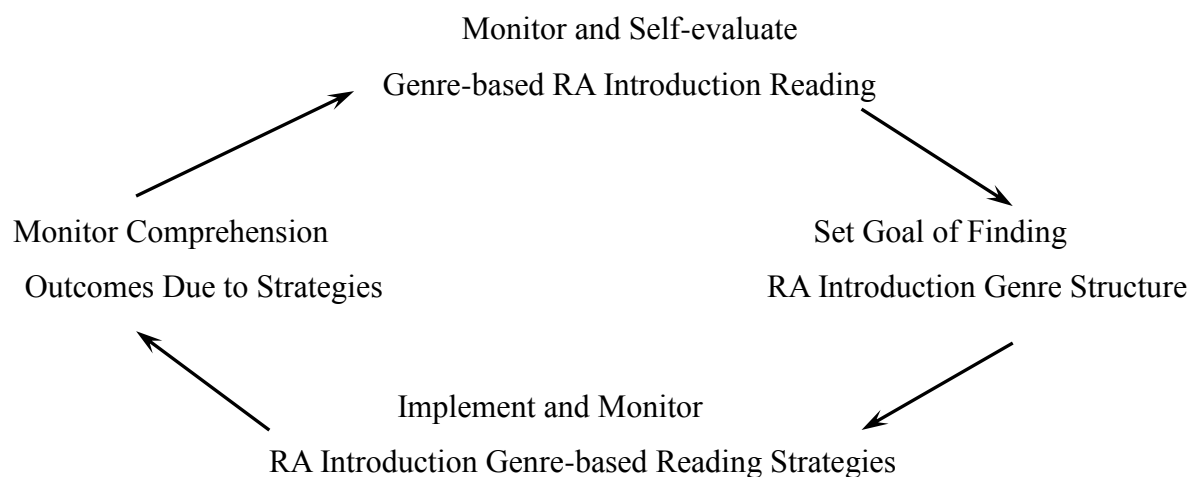
*aspect of, and an increase in research.*

During the fourteen-week study, students in the control group received what might be called explicit genre-based language teaching (Bhatia, 1993; Flowerdew, 1993; Hyland, 2004; Johns, 2002; Swale, 1990), in the sense that class time was devoted to raising students' awareness of both the rhetorical organization and the linguistic features closely associated with RA introductions. It is important to note that students' awareness was not limited to the rhetorical structures but also what communicative purposes these generic structures serve. Classroom activities for both groups included modeling, explaining, and discussing language features and text stages of RA introductions in both the textbook and standard text examples from students' disciplines. The instructor also demonstrated how to identify and interpret possible variations in the RA introduction exemplars, especially when there were contradictions between prescribed structures listed in the handout and the introductions in the papers in their disciplines. Classroom activities also included collaborative small group work to encourage students in both groups to support each other. For example, they were asked to work in a group of two to present the materials covered in the textbook and report the analysis of RA introductions in their disciplines to contribute ideas, interpretations and conclusions. For homework assignment, students in both groups were asked to read and perform move analyses of introductions from RAs in their disciplines, following the discussion of genre-based techniques in the class. Only students in the experimental group were asked to do integrated self-regulatory RA introduction analysis (as described in 3.3), while students in the control group performed analysis without linking with self-regulatory exercise because they did not undergo SRL. However, students in both groups would receive feedbacks and were allowed to resubmit their homework until they did the correct answer.

### *3.3 The experimental course*

The students in the experimental group had SRL incorporated into class instruction in addition to the same genre-based instruction that students in the control group received. In doing so, genre-based RA introduction reading was incorporated into Zimmerman et al.'s (1996) cyclic SRL model reviewed earlier. This integrated framework, depicted in Figure 1, involves four interrelated processes.





**Fig. 1: A process of self-regulation in genre-based RA introduction reading**

According to the first step in Figure1, students in the experimental group need to self-evaluate their current level of reading RA introductions. In the second step, the students are required to break the reading comprehension task into genre components and set specific goals to locate them. To attain the goals, they need to execute genre learning strategies and monitor their comprehension in implementing them. In the fourth step, they have to broaden the scope of their self-monitoring to include comprehension outcomes as well as strategic processes. The cycle keeps going as the students monitor their comprehension outcomes and determine that they need to modify their strategy use to read effectively.

Within this framework, for students in the experimental group, to learn the organization of an RA introduction and language use in it means not only to learn its rhetorical structures and linguistic features, but also to learn how to apply the self-regulatory procedures to retrieve and process genre components. Approximately sixty percent of class time was devoted to raising students' awareness of RA introduction knowledge with the same aforementioned activities that the control group went through during the whole class time , while the remaining time in the class was spent in the declarative knowledge and use of self-regulatory procedures as well as when and why to use them. That is, the instruction also involved explicit training in self-evaluating, goal setting, strategy use, self-monitoring and systematic SRL practice when teaching the organization of RA introductions. By focusing primarily on students' development of self-regulation of genre-based reading strategies in homework practice, the aforementioned cyclic self-regulatory learning phases were specified and embedded into RA introduction genre analysis activities. In this homework protocol, self-regulatory questions or directions were designed and included in each phase for the purposes of directing students in the experimental group to think about RA introduction reading (e.g., their genre

knowledge, genre learning abilities and strategies), personal effectiveness in reading RA introductions (e.g., self-evaluation), future expectation (e.g., goals, beliefs about their progress and potential improvement) and reflection on the consequence and relevance of strategy use (see Appendix).

### *3.4 Instruments*

The instruments in the study included a pre-and-post RA reading comprehension test, a final test, a SRL questionnaire for genre-based RA introduction reading, and self-regulated homework protocols.

The study employed a pre-and-post reading comprehension test design. The test was designed on the basis of an introduction to a business research report about electronic word-of-mouth (Fong & Burton, 2008). It consisted of 20 items and was divided into three parts. Part I contained 10 multiple-choice questions, each with four options, on words or grammatical features in the passage. Part II had 5 items designed to match each paragraph with its organizational structures. Part III included 10 multiple-choice questions, such as, “Which sentence emphasizes the value of the study from the practical viewpoint?” “Which sentence in the preceding introduction focuses on one subarea of the general area of the study?” The 20 items were scored, one point for every correct answer.

The final test, consisting of two parts, was also developed for the text treatment of this experiment. The first part was an introduction from the field of electronic commerce (Hwang, et al., 2007). It contained eight sentences and asked students to reconstruct them to match the organizational structure of the original text. Each sentence was weighted 5 points. The second part asked the students to do genre analysis of an introduction to a business research report about consumer e-shopping acceptance (Ha & Stoel, 2009). They were required to break the introduction down to moves and identify relevant vocabulary and grammatical choices, using genre reading strategies that had been covered in the course. Each information category (based on the CARS model) that the students identified was weighted 6 points and each language category was scored from 1 to 6 points according to how well their descriptions met Weissberg & Buker’s (1990) check-list for RA introductions.

The instrument measuring the variables of self-regulated instruction was a SRL questionnaire for

genre-based RA introduction reading. It contained 14 items with a 5-point scale indicating the frequency of using self-regulation strategies when reading RA introductions: never (1), rare (2), sometimes (3), often (4), always (5). The 14 items on this self-report questionnaire were based on the 14 categories identified by Zimmerman and Martinez-Pons (1986, 1988). Items are simple declarations (e.g., I try to take notes of the class discussion to improve RA introduction reading comprehension.) and conditional relations (e.g., When reading RA introductions, I use genre reading strategies learned in the course.).

Although the questionnaire can reveal many facets of RA introduction reading within the framework of self-regulated learning, it does not reveal how these facets relate to one another and how they relate to the outcomes of the reading comprehension test. Therefore, the aforementioned homework assignment as framed in the cyclic SRL model was used as a framework to qualitatively explore how students in the experimental group constructed genre knowledge in each phase of self-regulatory RA introduction reading. In this way, we can see the role self-regulation played in concert with genre learning processes.

### *3.5 Data collection and analysis*

The pre- and post-test was administered to the students (in both groups) at the beginning of RA introduction reading instruction and again 14 weeks later at the end of the instruction. The final test was administered after the students had received the instruction. To ensure inter-rater reliability, a subject-matter faculty member familiar with the genre knowledge of RA introductions was invited to discuss and check information structures and linguistic features in the final test paper with the researcher. In addition, at the end of the instruction, all the students in both groups were asked to respond to the SRL questionnaire.

The results of the pre- and post and final tests were analyzed by computing independent and paired *t*-tests using SPSS to determine how students in the experimental group in relation to the students in the control group performed in both tests. To determine the differences between the two groups in terms of their use of self-regulated learning strategies, independent *t*-tests were applied to their mean scores on the questionnaire. Pearson Product-Moment Correlation coefficients between the frequency of using self-regulated learning strategies and students' performance in the final test were also calculated.

For qualitative data analysis, the students in the experimental group were also asked to follow the directions in the homework protocol to self-record their self-regulatory activities during performing genre-analysis homework in Chinese. The Chinese self-recording was translated into English in this article. All names used are pseudonyms.

#### 4. Results

The primary goal of the study was to investigate the effect of incorporating SRL into genre-based RA reading instruction. The following sections summarize both quantitative and qualitative findings of this study taking the combined learning approach for underprepared graduate students.

##### 4.1 Quantitative analysis of data

Table 1 displays the results of the pre/post test and the final test for experimental and control groups.

**Table 1: Analysis of the pre/post-test and the final test for experimental and control groups**

	Pre/post-test				Final test			
	N	Mean	S.D.	<i>t</i>	N	Mean	S.D.	<i>t</i>
Experimental	20				20			
Pretest		8.65	3.75					
				-7.29***		64.90	13.17	-6.11***
Post-test		13.55	3.35					
Control	15				15			
Pretest		10.27	2.79					
				-0.31		34.33	16.43	
Post-test		10.60	3.87					

\* $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Since students in the experimental group received the instruction which incorporated SRL into explicit genre-based RA reading, an independent *t*-test analysis of the mean scores was conducted to determine if there was a significant difference between the experimental and the control groups in

the post-test. As we can see from Table 1, the mean scores were 13.55 for the experimental group and 10.60 for the control group. The difference between the two means was significant at  $p < .05$  level ( $t = -2.41$ ,  $p = 0.02$ ), indicating that the experimental group outperformed the control group. This result suggests that students in the experimental group improved RA introduction reading comprehension as a result of the incorporated SRL procedures for regulating their use of genre-based reading strategies and reading process.

With respect to the pre-test and post-test comparison of each group, the results of the analysis of a paired  $t$ -test showed that for students in the experimental group, the mean score goes from 8.65 to 13.55 and there was a significant improvement at the .001 level ( $t = -7.29$ ,  $p = 0.00$ ). The interpretation of this result is that a combination of genre-based knowledge and self-regulated learning can lead to more successful RA reading. It is surprising to note, however, there was no significant improvement among students in the control group ( $t = -0.31$ ,  $p = 0.76$ ). A likely explanation was that only explicit genre-based RA instruction might not be the most effective way to teach RA reading, especially for underprepared graduate students with limited English reading proficiency.

As the final test is concerned, the independent  $t$ -test showed that the experimental group ( $M = 64.90$ ) outperformed the control group ( $M = 34.33$ ). There was a significant difference between the means of the two groups at the .001 level ( $t = -6.11$ ,  $p = 0.00$ ). The result reconfirmed the effectiveness of integrating SRL with genre-based reading. It seems that it is this genre-based self-regulatory process that helps students in the experimental group deploy genre learning strategies to comprehend RA introductions.

In the analysis of the SRL questionnaire data, independent  $t$ -tests were applied to the mean scores on the questionnaire differences. Table 2 presents the means, standard deviations and  $t$ -values for individual items in the questionnaire for both groups.

**Table 2: Means, standard deviations, and  $t$ -values of individual items in the SRL questionnaire for experimental and control groups**

Items	Group	M	S.D.	$t$	$p$
1. I try to evaluate how I can do before performing RA	E	3.80	0.62	-3.28	0.00

introduction reading tasks.	C	3.07	0.70		
2. I try to take notes of the class discussion to improve reading comprehension.	E	3.70	0.80		
	C	2.67	0.62	-4.15	0.00
3. I try to set goals and plans for sequencing, timing and applying strategies related to RA introduction reading	E	3.90	0.79		
	C	2.73	0.70	-3.95	0.00
4. I try to get as much as information on RA introduction reading to complete learning tasks or prepare for test	E	4.35	0.81		
	C	2.80	1.08	-4.84	0.00
5. When reading RA introductions, I try to keep records and self-monitor what I learned.	E	3.85	0.67		
	C	2.47	0.83	-5.44	0.00
6. I try to select or arrange the physical setting to make RA introduction reading more efficient.	E	3.80	0.89		
	C	2.73	1.28	-2.91	0.01
7. If I do well on RA introduction reading tasks, I try to reward myself.	E	2.95	1.00		
	C	2.07	1.10	-2.48	0.02
8. When reading RA introductions, I use genre reading strategies learned in the course.	E	4.10	0.72		
	C	2.87	0.92	-4.47	0.00
9. When I have problems with RA introduction reading, I find my classmates to help.	E	4.55	0.60		
	C	3.07	0.96	-5.59	0.00
10. When I have problems with RA introduction reading, I ask teachers or advisors to help.	E	3.50	1.00		
	C	1.93	0.96	-4.66	0.00
11. When I have problems with RA introduction reading, I find other people to help.	E	4.20	1.01		
	C	2.67	1.11	-4.27	0.00
12. When preparing for RA introduction class or further testing, I review my class notes.	E	4.30	0.66		
	C	3.01	0.72	-2.70	0.01
13. When preparing for RA introduction class or further testing, I review my class notes.	E	4.35	0.67		
	C	3.73	0.59	-2.82	0.01
14. When preparing for RA introduction class or further testing, I review reference books or handouts.	E	4.40	0.68		
	C	3.60	0.74	-3.32	0.00

E = experimental group (N = 20); C = control group (N = 15)

It is observed from Table 2 that in the experimental group, students had significantly higher mean scores on all 14 questions. In addition, the mean of the average questionnaire scores for the students in the experimental group was 3.98, which was significantly higher than that of the students in the control group ( $M = 2.86$ ) at  $p < .001$  level ( $t = -6.06$ ,  $df = 33$ ,  $p = 0.00$ ). These findings indicated that students in the experimental group displayed significantly greater use of all self-regulation strategies while reading RA introductions than students in the control group. It appears that they benefit from RA genre-based instruction that emphasizes and promotes both the understanding and use of the component strategies SRL comprises.

The correlation between the final test scores and the total questionnaire scores of the students in both groups ( $N = 35$ ) was .64 ( $r = .64$ ,  $p < 0.01$ ), indicating that students' reports of their use of self-regulation strategies was positively correlated with their achievement of RA introduction reading. In other words, students who used more SRL strategies tended to have better reading comprehension when reading RA introductions. Interestingly, students' final test scores were most highly correlated with seeking social assistances ( $r = .65$ ,  $p < 0.01$ ), followed by reviewing textbooks or handout materials ( $r = .58$ ,  $p < 0.01$ ) and self-monitoring what was learned ( $r = .53$ ,  $p < 0.01$ ). It appears that the utilization of these self-regulation strategies may empower underprepared graduate students to become self-regulated learners who were not passive RA genre learners but learners who actively self-monitored what was learned and sought out information and assistance when needed. These are the most widely emphasized characteristics of self-regulated learners and the data from the questionnaire support this theoretical and instructional importance (e.g., Dembo & Seli, 2013; Zhang, 2010; Zimmerman & Martinez-Pons, 1986, 1988).

#### *4.2 Qualitative analysis of data*

In the analysis of homework protocols, it was found that students in the experimental group were able to assess their own RA introduction text and provided both cognitive and affective evaluation. In the cognitive area, most of them mentioned their use of genre learning strategies to self-monitor their reading process. William, for instance, wrote:

When I am reading the introduction, I search for some familiar vocabulary listed in the handout and extract these words, such as “growing importance”, “research literature”, “contribute”, or the phrases, like, “the remainder of the paper ...as follows.” Then, I anticipate what is coming next in the text, drawing on the

information structure, such as “claiming centrality,” “reviewing items of previous research,” “indicating the structure of the paper.”... With these strategies in mind, I know how to start RA introduction reading and they help me solve linguistic problems during information processing, and thus I have a strong feeling of accomplishment.

For more effective learners, this self-monitoring process leads to a meta-awareness of both benefits and constraints of the use of genre learning strategies. For example, Julie said:

It seems that not every genre reading strategy is universally effective. Therefore, each strategy should be used only when it is appropriate and it should be carefully monitored to determine if it is actually working.

Some students evaluated their ability to perform genre analysis tasks and were aware how their affective learning behaviors influenced RA reading performance. Johnson described his motivational changes with reference to this point:

I believe my English reading ability is not very limited. I can apply my basic grammatical concepts and vocabulary knowledge when reading, but I am too lazy to make effort to complete reading. After setting the goal of identifying how an RA introduction is structured, I find information structure strategies can help me improve reading speed and boost my interest to practice more. I tell myself to sustain engagement in reading and try out these strategies continuously.

Another metamotivational strategy was described by Pearl, who used volitional control strategies to regulate self-efficacy belief through the use of self-evaluation and self-reflection:

I know my English is not good enough but I believe practice makes perfect. Genre learning strategies are useful, but I will have to do more RA reading and try to practice them more until I can use them to broaden my knowledge of the subject-matter. Sometimes, I really feel disappointed because I don't have enough time to read and practice more. But I can't give up, for this kind of torture is always



accompanying our learning process, isn't it? I need to discuss the problems with my advisor and solve them; otherwise the difficulties are still there.

It appears that students who were able to perceive self-efficacy and their affective learning characteristics (feelings and behaviors) were more likely to identify appropriate cognitive or motivational strategies that would enhance their comprehension. In sum, the analysis of homework protocols indicates the effectiveness of the reflective processing characteristics of SRL on genre-based RA reading.

## **5. Discussion**

With the increasing popularity of genre-based ESP teaching, some critics have raised concerns that, despite the positive aspects of such instruction, it does not provide effective strategies needed by some EFL learners, including students who are ill-prepared for academic work in English. To investigate the effectiveness of integrating explicit genre-based teaching with SRL, this study explores the effectiveness of situating RA introduction reading in a theoretical framework of self-regulation involving four essential phases: self-monitor and self-evaluate genre-based RA introduction reading, set goals of finding RA introduction genre structure, implement and monitor RA introduction reading strategies, and monitor comprehension outcomes due to strategy use. The findings that only the experimental group had significant gains based on pre/post and final test comparisons and that no significant improvement was found among students in the control group suggest that genre-based knowledge can be taught successfully to low-proficiency graduate students to facilitate RA reading when it is integrated into the framework of self-regulatory process. As reviewed earlier, research on genre-based pedagogy has indicated that incorporating additional process-oriented learning into genre-based instruction can be effective (e.g., Cheng, 2006; Dhieb-Henia, 2003). The findings of the study seem to lend further support to this view. As learners go through self-regulatory learning processes, the regulation of genre learning entails their use of both genre learning strategies and metacognitive self-regulation strategies (Ching, 2002; Paltridge, 2009). These results also suggest that explicit genre-based teaching without framing it within SRL might not benefit underprepared EAP learners. This is in line with Hyon's observation that "genre-based instruction, at least in its present form, however, may not be able to effectively teach all genre features or address other kinds of knowledge or skills that students need for effective L2 reading" (2002, p. 139).

Similarly, the finding of the SRL questionnaire analysis suggests that low-ability EAP readers who

did not undergo genre-based teaching combined with self-regulatory learning processes apparently lacked metacognitive strategies for monitoring and evaluating their comprehension in order to deploy genre learning strategies to facilitate reading. The finding is consistent with reading research on metacognition, which reveals that the ability to self-regulate one's learning had a direct effect on deep-level reading processing for at-risk learners (Erler & Finkbeiner, 2007; Zhang, 2010). The high positive correlation between the total questionnaire scores and the final test scores seems in line with published research on SRL, which documents its positive association with the integration of content-subject learning (Boekaerts et al., 2000; Baumeister & Vohs, 2004; Hirata, 2011; Schunk & Zimmerman, 1998).

The analysis of homework protocols indicates that low-ability EAP readers who use self-regulatory processes can improve their reading not only by applying genre learning strategies but also by increasing self-efficacy and action control to learn. This finding is in accordance with the argument that self-regulation and affective side of strategic learning are bound together to enhance learner achievement (Cohen, 2007; Zimmerman, 2000; Zhang, 2010). However, much of the previous research on genre-based academic learning has focused on students' genre knowledge, cognitive and metacognitive strategies (e.g., Dhieb-Henia, 2003; Henry & Roseberry, 1998; Li & Munby, 1996). More research on affective aspects of genre-based pedagogy, especially students' efforts to regulate their motivational beliefs and actions, should be undertaken before the diverse EAP learners and their learning can be clearly understood.

The findings reported here, as well as the research of a number of others (e.g., Ching, 2002; Wambach & Dikel, 2000; Zimmerman & Schunk, 2001; Zhang, 2010) confirm the claim that self-regulatory processes are important components of successful EAP performance for underprepared learners. From the genre-based pedagogical point of view, the study reveals that an important learning objective in genre-based reading instruction for underprepared learners is to help them incorporate additional self-regulatory processes into reading, so that they become more responsible, resourceful, and reflective. In this integrated model, instructors need to design self-regulatory activities that provide opportunities for students to practice monitoring, planning and regulating their comprehension. For example, in this study, self-regulatory genre analysis homework was incorporated into RA introduction reading process to encourage students in the experimental group to monitor and evaluate their use of RA introduction learning strategies and reflect on the consequence and relevance of uses of these strategies. In addition, instructors are also encouraged to

include activities that help underprepared learners to employ metamotivational strategies to create favorable internal conditions and external environments for initiating and sustaining learning (see Zimmerman et al, 1996; Dembo & Seli, 2013). These regulatory activities could be designed as genre scaffolding tasks by asking students to set learning goals, reflect on their work, and evaluate their effort, feelings, accomplishments and responsibilities, not just grades (see Appendix). As noted by Swales (2009), it is not easy to have access to pedagogically “perfect texts” with effective learning activities for classroom use. Teacher training in how to design effective genre-based self-regulatory activities is also needed.

## **6. Limitations**

The study is limited in the following aspects which might restrain the interpretation and generalization of the results. First, without a delayed post-test, we do not know if improvements would sustain. Future research might design follow-up interviews (e.g., Hyon, 2001) to investigate extended effects. For practitioners, a long-term self-regulatory assistance session where underprepared learners receive help in using self-regulation strategies to read could be included. Second, since the study, limited by the school environments, uses natural groups, the small sample size appears to prevent generalizability to larger populations. Future experimental research with a larger number of subjects is needed. Third, the participants in this study are underprepared EFL graduate students; this also casts doubt on the generalizability of findings to ordinary EAP learners. Future studies could thus be extended to diverse groups of learners with different levels of language proficiency.

## **7. Conclusion**

The challenge facing EAP course designers and teachers is to equip learners, including underprepared EFL graduate students, with tools to analyze and make sense of the texts and related discourses in their particular disciplines (Bruce, 2011). The present study demonstrates the positive effects of linking self-regulation with genre-based RA reading. Quantitatively, the students in the experimental group, taking the combined learning approach, performed significantly better than students in the control group, who received only genre-based reading instruction. Moreover, as the pre- and post-test reveals, the incorporated SRL led to significant improvement of reading comprehension of the experimental group. Since strategy use based on the questionnaire reveals that students in the experimental group displayed significantly greater use of all self-regulation strategies than students in the control group, the use of self-regulation strategies should provide less successful learners with both cognitive and emotional scaffolding, and hence, improve their reading comprehension. Qualitatively, homework protocols reveal that students in the experimental group

consciously used genre learning strategies to self-monitor their reading process, which contributed to motivational changes, self-evaluation, and more effective reading performance.

Self-regulated learning focuses on autonomy and control by the learner who plans, monitors, directs, and regulates actions toward specific goals of learning and self-improvement. This broad scope of SRL also appeals to EAP researchers who seek to understand how diverse learners become adept and independent in their genre-based learning. There is, however, a surprising paucity of empirical investigation using SRL as both research and instructional tools to understand EAP learners and their learning process of genre-based reading. The present study provides a good basis for exploring effective forms of genre-based teaching and learning. Future research may uncover other important aspects of genre-based learning through the lenses of self-regulatory process; for example, how motivational and cognitive components of self-regulation of genre-based reading may interact to produce reading comprehension. The results of this study also help us achieve a more multidimensional view of the underprepared EAP readers and add to our theoretical understanding of their genre reading process.

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## Appendix: A self-regulatory homework protocol for RA introduction genre analysis

Monitor and Self-evaluate RA Introduction Genre Reading	<p>Judge my personal effectiveness in reading RA introductions by answering the following questions:</p> <ol style="list-style-type: none"> <li>1. What is an RA introduction genre? How would I rate my level of prior knowledge? <ol style="list-style-type: none"> <li>1.1. I am (A. not sure B. sure C. very sure) about what information is included in RA introductions.</li> <li>1.2. I am (A. not sure B. sure C. very sure) about the linguistic features realized in the information structure of RA introductions.</li> </ol> </li> <li>2. Based on my observation and recording of prior performance and outcomes, what learning difficulties would I encounter in reading RA introductions? How can I conquer these difficulties? Who and how can I seek for help?</li> <li>3. Estimate the time needed for the assignment. How do I manage my time?</li> <li>4. Do I need to create or control the learning environment to reduce distractions and improve reading comprehension?</li> </ol>
Set Goal of Finding RA Introduction Genre Structure	<p>Analyze RA introduction reading activities by answering the following questions:</p> <ol style="list-style-type: none"> <li>1. Why am I going to read RA introductions?</li> <li>2. What do I need to know to get homework done? How would I achieve this goal? <ol style="list-style-type: none"> <li>2.1. How would I analyze the learning tasks?</li> <li>2.2. How would I generate goals? Do I need someone who can help me achieve these goals?</li> </ol> </li> </ol>
Implement and Monitor RA Introduction Reading Comprehension Strategies	<ol style="list-style-type: none"> <li>1. Am I prepared to employ RA genre reading strategies, including information structure strategies and linguistic feature strategies? <ol style="list-style-type: none"> <li>1.1. What strategies do I use to identify how an RA introduction in my field of study is structured in terms of functional stages or moves?</li> <li>1.2. When do I use these strategies to extract linguistic features that characterize the texts?</li> </ol> </li> <li>2. When do I need to refine these strategies?</li> <li>3. How and when do I monitor my progress to determine if these strategies</li> </ol>

	are working?	
Information Structure Strategy	RA Introduction Text Analysis	Linguistic Features Strategy
Strategy 1: Claiming centrality and/or Making topic generalization(s)		Key words and sentences
Strategy 2: Reviewing items of previous research		
Strategy 3: Needing more investigation by counter-claiming / indicating a gap/question- raising /continuing a tradition		
Strategy 4: Stating the purposes of the present research		
Strategy 5: Listing research questions or hypotheses		

Strategy 6: Announcing principal findings		
Strategy 7: Stating the value of the present research		
Strategy 8: Indicating the structure of the paper		
Monitor RA Introduction Reading Comprehension Outcomes Due to Strategies	<p>1. Based on my reading of the text, describe how genre reading strategies I used help me attain the goal(s) I set for myself. Have these strategies improved my RA reading? Change nothing if assessment from teacher or classmates' feedbacks is positive; modify the plan if progress is deemed inadequate.</p> <p>2. Assess goal progress to determine how well self-regulated learning strategies are working. What strategies are the most and least effective? What changes, if any, do I need to make in the future?</p>	



**How Eeffective is workplace *English for Occupational Purposes (EOP)* training?  
Case studies of corporate programs in the Chinese context**

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**Bio data**

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**Abstract**

Workplace *English for occupational purposes (EOP)* training programs represent corporate investment in language skills enhancement, which is perceived by employers as essential for business globalization. However, there is a lack of empirical research on the evaluation of workplace *EOP* training programs. This study focuses on the effectiveness of the *EOP* programs

offered in Chinese workplaces and the factors that contribute to or hinder the effectiveness of *EOP* training programs in the Chinese workplace. Based on a synthesis of existing theories and evaluation models, a framework for evaluating *EOP* programs in the workplace is developed. Using case studies of two programs, the study applies the evaluation framework to investigate their effectiveness. The self-assessment results demonstrate that training participants of the two programs reached an intermediate level of language competence. The study findings also indicate that while *EOP* training programs are effective in preparing employees for business communication in the short term (i.e. as the course ends), long-term progress may decline which could be influenced by such factors as language use environment and learners' commitment to the learning process. Nevertheless, this might not preclude individual success cases.

Keywords: Workplace, *English for Occupational Purposes*, Program Evaluation, Training Effectiveness, Case Study, Corporate Program, Chinese Context

## 1. Introduction

Many companies in China have invested in employee *English for occupational purposes (EOP)* programs to facilitate globalization in the form of onsite classroom-based training, offsite institution-based training, and alternative methods, such as e-learning and blended learning modes identified by global language training providers' surveys (EF Education First 2012; Global English 2012; Ipsos MORI 2009). Nevertheless, little is known about the effectiveness of these workplace *EOP* training programs, especially in the Chinese context. Thus, this study focuses on evaluating the effectiveness of *EOP* training programs in the Chinese workplaces and the influencing factors.

In the *English for Specific Purposes (ESP)* literature, there is a shortage of research on program evaluation (Gillet and Wray 2006; Cheng 2006). Previous research has been "limited on empirical investigation into the effectiveness of *ESP* teaching" (Johns and Dudley-Evans 1991; Master, 2005). There are also few studies focusing on the workplace context as Basturkmen (2012: 68) suggested, compared with research of *English for academic purposes (EAP)* in the university context, and workplace related *ESP* studies are limited, with only a few highlighted projects in New Zealand and Germany due to the issues of restriction on access to the research sites and corporate confidentiality.

In the university context, Tsou and Chen (2014) recently developed a program evaluation framework based on Hutchinson and Waters' 1987 model and comprehensive foreign language



program evaluation theories and applied to an undergraduate *ESP* program in a Taiwanese university. However, there is no recent evaluation framework for the workplace program context readily available in the literature. This study aims to address this gap to develop an evaluation framework for *EOP* programs in the workplace based on the evaluation models of Adamson and Morris (2007: 277), Hubball and Burt (2004: 54), Kirkpatrick (1950), and Hutchinson and Waters (1987), and apply it in analyzing workplace *EOP* programs in China.

## **2. Theoretical framework**

### ***2.1 Previous studies on the evaluation of workplace language training programs***

In language program evaluation, as the important theoretical foundation for workplace *EOP* training program evaluation, methods and theories have evolved since the 1960s and 1970s, from an exclusive focus on experimental approaches to compare the pre-test with post-test outcomes, and to contrast grammar translation method with audio-lingual method using experimental group and control group, to a combination with naturalistic approach to investigate the classroom process. Later developments in program evaluation have started to look at needs assessment to examine the gap between the program planning and learning outcomes in both development and implementation processes (Lynch 1996).

Earlier work on *ESP* course evaluation also laid the foundation for developing a workplace *EOP* training program evaluation framework. Hutchinson and Waters (1987) indicated that *ESP* course evaluation is concerned with the evaluation content, evaluation methods, evaluation target group and evaluation periods. Specifically, an evaluation can test whether the course meets learner demands and whether there is any weakness in the course design in course planning, course materials, teaching processes, assessment and evaluation. Dudley-Evans and St John (1998) argued that evaluation can rely on both qualitative and quantitative methods. At different periods, evaluation can focus on aspects such as classroom teaching process, after-class activities, resources and support, methodologies and evaluation.

In addition, the evaluation of *ESP* and *English for general purposes (EGP)* courses differs in that *ESP* courses particularly require the evaluation of learning at both course end and the periods after the course completion in terms of the learner performance in the workplaces (Basturkmen 2010). For example, Marra, Holmes and Riddiford (2011) evaluated the program success in New Zealand

by comparing the participants' performance in the classroom and workplace through various qualitative instruments such as interviews, written record, observation, and performance review, which provide an in-depth record of the participants' progress in the learning process, thereby clearly indicating the degree of effectiveness of the program.

However, in one study in China discussing the petrochemical company employees' English training, Li (2011) found little emphasis on training program evaluation and poor learning outcomes, while various other problems existed in the actual training program development and implementation. In the absence of evaluation framework, for workplace *EOP* training in China, it became necessary to create one, as we show in the following section.

## ***2.2 Creating an evaluation framework for workplace EOP training programs in China***

To create an evaluation framework for this study, it is important to consult existing frameworks, which have been synthesized and adapted to meet the requirements of the Chinese context. A model designed by Kirkpatrick (1950) for evaluating training program effectiveness includes four levels, "reaction, knowledge, behavior and results". This model has been adapted for use in both corporate and higher-education settings (Smidt, Balandin, Sigafos and Reed 2009; Praslova 2010; Fitzpatrick, Sanders and Worthen 2004). Adamson and Morris's (2007) evaluation model particularly addresses the effectiveness of the course design, course delivery process, learning outcomes and long-term impact. As the workplace *EOP* training programs under study aim to offer a learning-centered curriculum, an integrated evaluation framework (Hubball and Burt 2004: 54) is relevant because it specifically analyzes the "learning context" by gathering data through the angles of "needs assessment, resources and organization structure" to understand the program process and impact.

The overall design of the evaluation framework (see **Figure 1**) in this study has been adapted mostly from Adamson and Morris (2007). Information synthesized from Kirkpatrick (1950), Hutchinson and Waters (1987) and Hubball and Burt (2004: 54) pertaining to the factors in program design, program implementation and workplace *EOP* training effectiveness is included and analyzed in the workplace *EOP* training programs which provides answers to the questions in the evaluative framework and ultimately addresses the research questions of this study.

### **2.3 Research questions**

This study centers on the following two main research questions:

- (1) How effective are *EOP* training programs in preparing employees for global business communication in the Chinese workplace context?
- (2) What factors contribute to or hinder the effectiveness of *EOP* training programs in the Chinese workplace context?

## **3. The study**

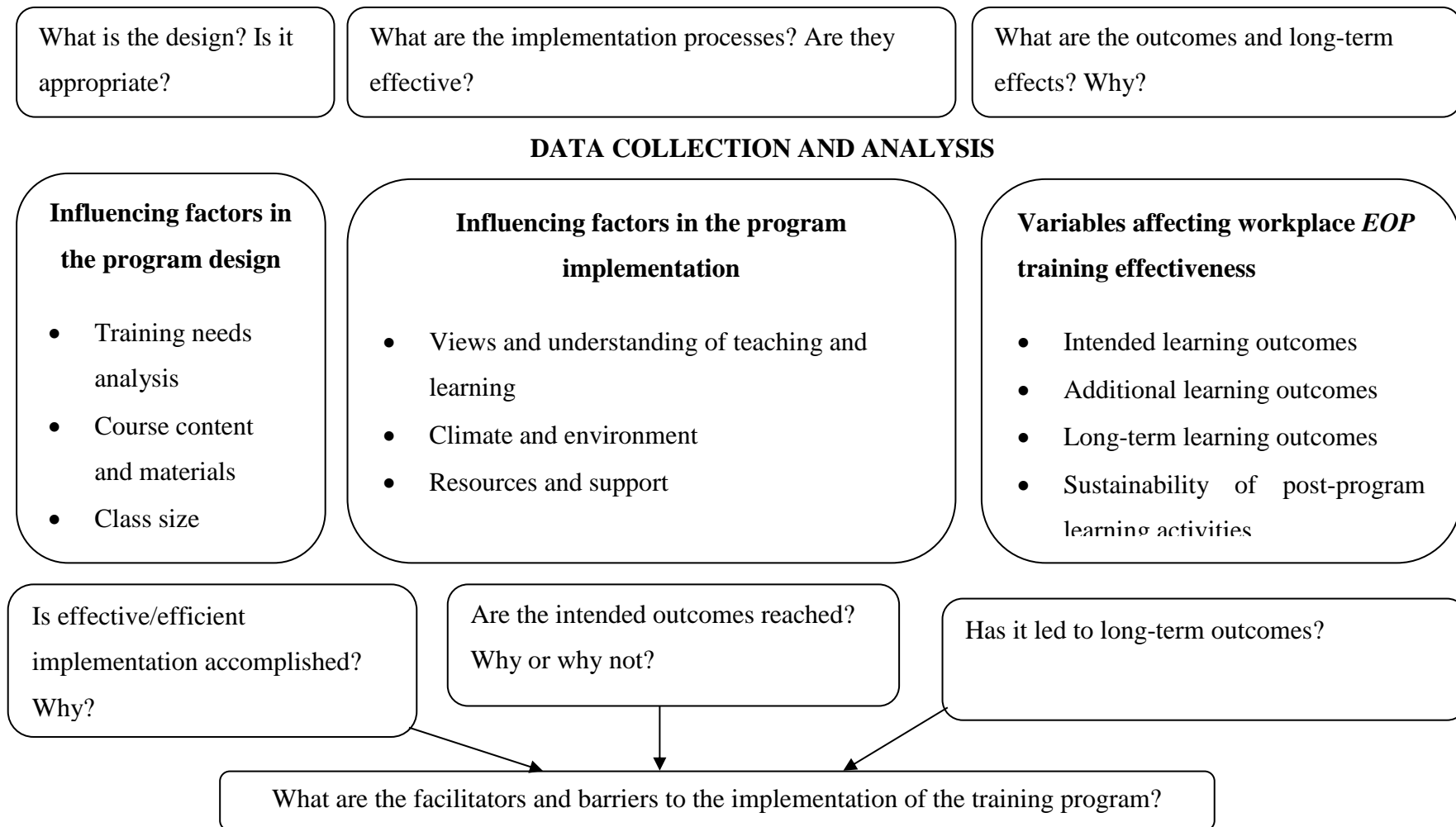
### **3.1 Research design and methods**

This study comprises case studies of two workplace *EOP* training programs. Determining whether workplace *EOP* training is effective and appropriate is context dependent. It is therefore necessary to select cases in which researchers can gather information in different contexts (Flyberrg 2006). By consulting the evaluation framework, the factors of trainers, students, curriculum and vocational context and their immediate and potential impact on the program learning outcomes and actual international business communication can be explored.

### **3.2 Choice of case companies**

The case studies are located in Wuxi, in the eastern part of mainland China because international business communication activities are common in the city and many workplace *EOP* training programs are conducted, particularly in companies receiving foreign investment. The case studies selected are typical of workplace *EOP* programs in the Chinese context.

Case study 1 represents a workplace *EOP* program conducted in **a private international machinery trading company L in Wuxi**. Company L is specialized in model making and machinery trading. This company requires its Chinese employees, especially engineers, to be competent in English speaking and writing to communicate with overseas suppliers, and understand machinery training in U.S. in English to provide better product after-sales service.



**Figure 1: Evaluation framework for *EOP* training programs in the Chinese workplaces**

Case study 2 represents a workplace *EOP* program conducted in a **Sino-Italian joint venture dishwasher manufacturer N in Wuxi**. Company N's general manager comes from Italy and requires constant on-the-job communication in English with his Chinese employees. Most of these local employees also have to communicate with overseas colleagues, customers and suppliers in English. Case study 1 and case study 2 are compared and described in **Table 1**.

### ***3.3 Case study research process***

Case study research was conducted on the training participants, general manager and human resources officer as decision-makers. One of the authors was the sole workplace trainer. The process for the case research consisted of using such data collection instruments as qualitative interviews, learner self-assessments, trainer's reflection, participant observation and documentary study.

*Qualitative interviews* based on customized interview questions were used to gather the participants' views on the learning outcomes of workplace *EOP* programs and the contributions these programs make to the development of global business communicative competence. Sample interview questions are illustrated in **Table 2**. Eleven case study participants (referred to by pseudonyms) took part in eight individual, face-to-face semi-structured qualitative interviews. One written reply was also received. The interviews were conducted in Chinese and were later transcribed and translated into English.

**Table 1: Description of case study 1 and case study 2**

	Case study 1	Case study 2
Participants	General manager, engineers, customer service and accountant	Office staff in sales, accounting, quality control, human resources and production departments
Training needs analysis	A face-to-face interview conducted with the general manager and the training participants to discuss the course objective, course content and materials etc. prior to course commencement	The training needs collected through HR department by the trainer to determine the course level and textbook, approved by the training participants
Course duration	From February 2010 to May 2010 for a total of 18 hours, every Saturday morning for six continual weeks	From October 2006 to December 2006 for a total of 32 teaching hours, one or two sessions per week from 4:30 pm to 6:30 pm
Course objectives and target competencies	To enhance training participants' oral and written English communicative competence, with a focus on English use in the professional contexts, such as English for the industry	To enhance the managerial level professional English competence by focusing on the communication skills of listening and speaking in the context of the daily business operation
Course level	Preliminary standard based on the Business English Certificate test	Intermediate standard based on the College English Test (CET) Band 4
Course content	Based on <i>Industry Matters</i> (Michler and Welt 2009) and <i>Passages – Cambridge International English Course 4</i> (Richards and Sandy 2003) supplemented with tailor-made spoken and written English exercises	Based on <i>New Interchange English for International Communication 3</i> (Richards, Hull and Procter 2000) supplemented with personalized spoken and written handouts designed by the instructor
Training methods	Task-based, text-based, collaborative, skills-centered and	Integrated training approaches, encompassing <i>EOP/ESP</i> needs-

	learning team-based; Use authentic situation or communication problems from the learners' work scenarios	based, text-based, content-based and task-based approach, simulation, conversation, cases and real world scenarios
Climate and environment	Working language is mostly Chinese, with occasional on-the-job use of English	Working language is mostly Chinese, with on-the-job use of English
Resources and support	Use instructional audio and video to showcase the best practice business presentation, telephone conversation, meeting and socializing	Construct workplace learning and training climate, select instructional media and organize pre- and post-training activities
Short-term objectives	Pass machinery training in English in the U.S. with certificates	Solve communication problems between the employees and the Italian general manager
Long-term objectives	Improve employee job performance and business expansion in China	Enhance the effectiveness of the company's global operation in China

**Table 2: Sample interview questions**

Do you think the workplace <i>EOP</i> training courses can help you effectively develop global communicative competence?
Are training materials such as textbooks and handouts sufficient and effective in achieving the learning outcomes?
What do you think of the training methods for the <i>EOP</i> programs? Are they efficient and effective for the participating employees?
How effective is the workplace <i>EOP</i> training program in improving your job performance with regard to the international business communication activities in your company?
How can <i>EOP</i> training promote skills development for employability?
Do you prefer continuing learning English after completing the program?
Is your company proactive in business English or vocational English training?
Do you organize activities related to workplace English learning, such as English Corner?

*Self-assessments* of overall workplace *EOP* competence, reading and writing skills were conducted with the training participants to understand their perceptions of the training effectiveness.

*Trainer's reflection* focused on the workplace *EOP* program development and the implementation process, perceptions of the effectiveness of the training program and the factors that might contribute to or hinder the program development and implementation. The reflection provided the trainer's insider view, which is not always accessible to external program reviewers.

*Participant observation* (Lynch 1996: 121), based on fieldwork guidelines, was used to capture the workplace communication needs, on-the-job and in-class training performance and after-class activities, to ascertain whether the *EOP* acquired in the program can make real changes to international business communication performance.

*Documentary study* was conducted to compare course materials with authentic workplace documents collected from the case study participants to examine whether classroom materials



can facilitate authentic workplace business communication.

### 3.4 Data analysis

Qualitative thematic analysis based on the evaluation framework in **Figure 1** was conducted using the findings from the training program interview transcripts and trainer reports. The corporate document review and program material evaluation have been conducted with the instruments of “discourse analysis”, which can help researchers achieve a deeper understanding of the nature of business communication types in the workplaces. A case context analysis has also been conducted based on the participant observation field notes to facilitate an understanding of how the contextual factors influence the effectiveness of workplace *EOP* training and employee communicative competence development.

## 4. Case study findings

### 4.1 Analysis of program design and implementation in case study 1 and case study 2

The training participant profiles for case study 1, workplace *EOP* training program in a Chinese machinery production and trading company L and case study 2, workplace *EOP* training program in a Chinese dishwasher production company N are listed in **Table 3** and **Table 4**.

**Table 3: Training participant profile for case study 1**

Name	Bill	Laura	Jeremy	Helena
Company	Private China-based Model Making Company L in Machinery	Private China-based Model Making Company L in Machinery	Private China-based Model Making Company L in Machinery	Private China-based Model Making Company L in Machinery
Department	Engineering	Customer Service	Engineering	Finance

Position	Department Manager	Customer Service	After-sales engineer	Finance
Education qualification	City Polytechnic	College	College/Machinery	Bachelor
Work experience	4~6 years	4~6 years	14~16 years	7~10 years
Salary increase	n/a	n/a	n/a	n/a
Job change	n/a	n/a	n/a	n/a
Motivation of learning workplace English	Improve job quality and productivity	Self-improvement	Personal preference	Personal preference

**Table 4: Training participant profiles for case study 2**

Name	Michael	Sarah	Tania	George	Joan
Company	Italy-based Global Company N in Home Appliance	Italy-based Global Company N in Home Appliance	Italy-based Global Company N in Home Appliance	Italy-based Global Company N in Home Appliance	Italy-based Global Company N in Home Appliance
Department	QC-Marketing	GM Office	R&D	Purchasing	Finance
Position	QC Supervisor	Secretary	Homologation Engineer	Buyer	Accountant
Education qualification	Bachelor in Computer Science	College	Mechanical Design Engineer	College	Bachelor in Accounting
Work experience	7~10 years	11~13 years	11~13 years	11~13 years	11~13 years

Salary increase %	10%	n/a	10%	n/a	n/a
Job change	2	n/a	1	n/a	n/a
Motivation of workplace English learning	Personal preference	More effective communication with HQ	Learn formal words and sentences, correct grammar	Constant communication by email with overseas companies	Better for job

A summary of major findings in case study 1 and case study 2 in the program design and implementation is illustrated in **Table 5**. These two case studies have generated similar findings in terms of how various program factors may influence the training effectiveness, the details of which are compared and discussed in the following sections.

**Table 5: Comparative findings in the case studies: program design and implementation**

	Case study 1	Case study 2
Training needs analysis	<ul style="list-style-type: none"> <li>• More training needs and requirements raised in the post-course interviews</li> <li>• Initial investigation not thorough</li> </ul>	<ul style="list-style-type: none"> <li>• More training demands mentioned in the post-course interviews</li> <li>• Initial investigation not comprehensive</li> </ul>
Course content and material	<ul style="list-style-type: none"> <li>• Adequate for the program with two course books</li> <li>• Professional vocabulary needed in the supplementary materials</li> <li>• Email writing tasks helpful</li> <li>• Discrepancy with actual writing documents in the workplace</li> </ul>	<ul style="list-style-type: none"> <li>• Original international communication course book considered adequate in meeting the training needs</li> <li>• Supplementary materials effective in training oral and written communication skills</li> <li>• Should bring company or daily living related samples into class</li> </ul>

Class size	<ul style="list-style-type: none"> <li>• 1 teacher, 3-4 students (the most effective)</li> <li>• One-on-one teaching (the most efficient)</li> </ul>	<ul style="list-style-type: none"> <li>• Trainer feeling comfortable with the 12-people group</li> <li>• A group of 3-4, or 5-6 also good</li> </ul>
Views and understanding of teaching and learning: delivery and methods	<ul style="list-style-type: none"> <li>• Training format such as role play and simulated talk considered most effective</li> <li>• Participating in English technological training to practice English</li> <li>• Tailor-made training methods suggested</li> </ul>	<ul style="list-style-type: none"> <li>• Role play often used</li> <li>• Prefer classroom-based spontaneous oral practice/conversation practice</li> <li>• Suggest using case studies</li> </ul>
Climate and environment	<ul style="list-style-type: none"> <li>• English use on the job supports learning</li> <li>• Learning in an English environment is preferred</li> </ul>	<ul style="list-style-type: none"> <li>• Chinese as the working language hinders communicative competence development</li> <li>• English working environment offers exposure to the language</li> </ul>
Resources and support	<ul style="list-style-type: none"> <li>• Online training model preferred</li> <li>• Prefer to be thrown in an English environment</li> </ul>	<ul style="list-style-type: none"> <li>• Through on-the-job communication practice</li> <li>• Diverse English training programs offered learning opportunities</li> </ul>

#### 4.1.1 Training needs analysis

In the post-course qualitative interviews, both the general manager and training participants expressed their concerns about the training needs and requirements, which should have been addressed prior to course commencement.

For written communication, the general manager of company L, and also one of the training participants stressed: “*Email is the most important. Others like some brochure or catalogue are both needed*”. This statement was confirmed by Helena, accountant and Laura, customer service,

who emphasized the importance of email as a written communication channel, particularly when communicating with customers. For written communication, Helena indicated the use of templates, such as for orders, product import and export.

For oral communication, skills were necessary for dealing with incoming customers, participating in overseas training in Hong Kong and U.S., which required “*oral communication ability*”, and “*receiving customers through participating in training or some exposition*”. Meanwhile, engineers also “*need English skills if participating in technical training*”.

Upon reflection, the trainer felt the above training needs and requirements were mostly mentioned in the face-to-face interview with the general manager prior to course commencement, and the training program addressed these concerns.

Unlike case study 1, the training needs analysis in case study 2 in the initial stage may have been inadequate for addressing the job specific needs, as the trainer was not aware of the job context at the course commencement.

Regarding written communication, weekly or monthly inspection reports and quality improvement and contract texts, had to be prepared and shared with HQ colleagues. Other written communication included testing reports, the compilation of technical specification brochures and project summaries.

In oral communication, aural and oral skills were necessary to handle overseas conference calls. In summary, workplace English use was needed in “*communicating with the boss, overseas suppliers and reading overseas materials*”.

The additional information enabled the trainer to reflect on the case study 2, as he also felt the program content could have linked more closely with training participants’ daily work and help with the job performance.

#### 4.1.2 Course content and materials

In case study 1, the course instruction focused on *Industry Matters* (Michler and Welt 2009) which contains 10 teaching units, covering the topics of company visit, travel arrangements, making telephone calls, meetings, presentations, marketing campaigns, production, contracts and dealing with problems.

Stephen requested adding specific professional vocabulary “*encountered in product promotion materials and customer emails*” to the program materials. The supplementary spoken and written practice materials proved to be effective in improving the employees’ practical oral and written communication skills. Bill, mechanical engineer, thought that the email and note-writing tasks for each session were especially helpful.

However, in comparing the writing practice material and the training participants’ simple email technical communication document, there was still inconsistency as the writing exercise was not specific enough for participants to directly transfer the writing skills to their daily jobs. The writing practice material is a part of the *Cambridge BEC Preliminary* test papers, which is general to some extent. The discrepancy lies in the professional vocabulary and the business context. One participant’s technical communication document is illustrated below in **Sample 1**.

#### **Sample 1 from Helena**

Dear XX,

We’ve received your confirmed order, but now we need to add XX to the order.

Attached is the revised order. Please check it.

Please kindly send the XX together with our other goods.

If the goods have not been shipped yet. Please deliver it ASAP and tell us the date and tracking number.

As one of the course material writers, the researcher also indicated the lack of effort in designing course materials based on constructed workplace discourse, even though the training participants thought the course content and materials were adequate.

In case study 2, the training topics were based on the learning materials in *New Interchange English for International Communication 3* (Richards, Hull and Procter 2000). The training included the topics dealing with consumer complaints, communication across cultures, education and learning, career moves, self-improvement, challenges and accomplishment. The training topics were wide ranging and covered different aspects of international communication.

Michael felt that the course book, which targeted trainees with a foundation for learning, was adequate. Michael observed that if it had “*referred to industry, the course would be more special and cover areas of quality, commercial, marketing and product*”. Michael recommended adding more company or daily living related cases into the course content to supplement the learning materials. Employees, particularly those from the purchasing department, had to handle daily email correspondence on financial matters, as illustrated in the following **Sample 2** from George. The workplace *EOP* program could have been more useful to employees if such sample had been brought into class for discussion.

### Sample 2 from George

Hi:

Supplier total printed XXX products (including XXX produce we order before), please check the offer!

The total cost is XXXX USD (including the air cost to Italy). Deduct the cost XXXX USD for XXX pcs sample. So we need added the cost is XXXX usd.

Anyway in supplier hand they still keep XXXX USD last time, so if you confirm the qty and price, after the delivery, supplier still have XXXXUSD in hand.

Please confirm if you can accept the XXX pcs and the price, then supplier can arrange delivery it by air in next week, also please inform me who will receive the products.

And for the mould will be delivery by ship on 18 Aug, XXX plant is 17 Sep, please confirm me if it's ok.

Next week Wuxi is in holiday, any urgent things you can call my MB: XXXX

#### 4.1.3 Class size

Case study 1 was conducted with four group members. The trainer felt comfortable with the group setting and had adequate opportunities to enable inner group communication to enhance communicative competence development.

Stephen considered “*one teacher, three to four students*” to be a more efficient class size than “*one teacher to more than 10, 20 or 30 students, within 45 minutes*”. However, Stephen and Laura thought that one-on-one teaching was the most efficient because the trainer can provide instant feedback to any questions raised by the training participants. Helena, the company accountant, agreed and preferred the small group tutorials that were more focused.

In case study 2, the trainer was also happy with the 12-person group format. Michael thought that the 12-person group was a good platform for inter-peer communication and teamwork cultivation. Joan, the accountant, preferred one-on-one teaching because she felt it would be more targeted and suitable. However, having several people in a group allows the trainees to communicate, such as in a workshop, and everyone makes progress.

#### 4.1.4 Views and understanding of teaching and learning

In case study 1, the trainer reflected that the training process was quite dynamic and relaxing, as training participants can practice English speaking and writing in an enjoyable atmosphere.

Moreover, for improving workplace English competence, Stephen also mentioned participating in English technological training, in which employees can sit and listen to English speaking. They can also have some oral English exchanges with teachers. On the other hand, Helena suggested tailor-made training methods, for the following reasons:

*Everyone will have different English foundation and different requirements. They can get used to different methods. Probably someone is more suited to guidance method while others are more suited to learning in a compulsory environment.*

(Helena)



In case study 2, the trainer reflected that the delivery of the training program was flexible and covered the necessary steps in program implementation. In commenting on the process of teaching and learning in the workplace *EOP* program, Michael observed that role play in English was often used including “*dialogue*” in the training. George preferred classroom-based spontaneous oral practice/conversation practice. He recommended other training methods that could be used in workplace *EOP* training programs, such as “*case studies, practice, coaching and the cultivation of thinking ability*”.

Michael also had experiences in non-language subject training, which provided chances for developing workplace English communicative competence. He introduced the group’s “*orientation training and work ethic training in English*” through the website which contained a “*training textbook*”. Michael also mentioned the “*technical training in Italy*” in which his “*HQ colleague talked about product and marketing related staff for two weeks*”.

#### 4.1.5 Climate and environment

In case study 1, Stephen thought that using English on the job could provide a channel for the development of workplace English communicative competence:

*English use is the best teacher. I reckon they should use English. Reading customers’ e-mails is a kind of learning. Reading brochures is a kind of learning.*  
(Stephen)

Alternative learning support can be derived from the workplace environment and daily life. It can also be provided by the trainer. Jeremy, mechanical engineer, preferred immersion in a compulsory English environment in which only English was used in communication. The trainer also agreed that the training participants could overcome the barrier of a poor language environment by putting more effort into using English on the job.

In case study 2, the training participants were concerned about the working language, which is Chinese and can create barriers to the development of professional English communication

skills. Sarah, the general manager's secretary, explained that at the Wuxi branch, there was "*little environment*" for her to use English in her job and thus the "*scenario would not help her recall the newly acquired knowledge*". The training participant Michael felt that his English improved the most in Singapore, in the English working context, and digressed after his return to China. The Chinese language business environment seemed to constrain his success in English learning.

The trainer was also concerned that Chinese as the workplace language could constrain the effectiveness of the workplace English training, but this may be compensated for by the provision of English multimedia resources.

#### *4.1.6 Resources and support*

In case study 1, the general manager and the training participants had different views on the benefits of alternative learning support from online learning platforms, which could cater to their special work requirements. The technical support engineers tended to prefer online learning, due to tight schedules of frequent business trips. For instance, as Bill often had business trips, he enrolled in the EF web-based course, which offered daily "*one-on-one oral communication with a teacher*". Bill thought that his job "*needs flexible and autonomous learning*".

In case study 2, resources and support are realized through on-the-job communicative competence development or by joining in company English training. The trainer thought that the participants' on-the-job communicative competence development was more effective and positive for achieving the long-term learning outcomes.

For example, Michael compared his experiences in Wuxi and in Singapore. In Wuxi, the communication focus was on "*daily work, such as on quality*" whereas in Singapore, the focus was on "*marketing and business*". In Singapore, daily communication including dining and activities was conducted in English, giving him opportunities to improve his language skills. George explained that participating in "*some courses could improve his business communication ability*". Some courses targeted at "*purchasing ability*" and his professional ability could improve.

#### 4.2 Training effectiveness in case study 1 and case study 2

The major findings of training effectiveness of case studies are summarized in **Table 6** by examining relevant variables in the evaluation framework. The training participants of case study 2 are at a more advanced level of English proficiency than case study 1 according to their self-assessment results, and these two programs have different intended learning outcomes. However from the long-term perspective, both of the case study findings have indicated the importance of continuous learning to achieve excellence in communicative competence and international career development. The details are discussed in the following sections.

**Table 6: Effectiveness of workplace *EOP* training**

Workplace <i>EOP</i> training effectiveness variables	Case study 1	Case study 2
Intended learning outcomes	<ul style="list-style-type: none"> <li>• Engineers obtained certificates in the U.S. English machinery training</li> <li>• Gained concrete help in business communication</li> </ul>	<ul style="list-style-type: none"> <li>• English proficiency maintained at CET-4 or lower levels</li> </ul>
Additional learning outcomes	<ul style="list-style-type: none"> <li>• Professional improvement</li> <li>• Salary increase</li> <li>• Boost personal confidence</li> <li>• Personal development</li> <li>• Career enhancement</li> </ul>	<ul style="list-style-type: none"> <li>• Benefits to teamwork and the cultivation of teamwork spirit</li> </ul>
Long-term learning outcomes	<ul style="list-style-type: none"> <li>• Decline in further improvement in the longer term</li> </ul>	<ul style="list-style-type: none"> <li>• Depending on the frequency of professional English use on the job</li> </ul>
Sustainability of post-program	<ul style="list-style-type: none"> <li>• Alternative training and learning activities such as</li> </ul>	<ul style="list-style-type: none"> <li>• Self-access workplace English training and on-the-job</li> </ul>

learning activities	enrolling in training course • Awareness of persistence and the benefits of learning together with other colleagues	professional English practice • Watching English movies and joining in English related activities
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#### 4.2.1 Intended learning outcomes

In case study 1, Stephen thought that there was “*real improvement*” immediately after the training. The training participants obtained concrete help in workplace English communication skills development, such as oral communication and business e-mail writing. They also acquired useful industrial knowledge:

*Last training is organized mainly because my colleagues have to go abroad. It helps them to brush up their English. In this way, their vocabulary increases. Besides English, there will also be some essential industrial knowledge. When they communicate with others, they can have the topic. (Laura)*

In case study 2, the employees stated that their present English proficiency was at the required levels. Michael explained that he had “*passed CET-4, not CET-6*”. Tania had also passed CET-4, whereas George had only reached CET-2. George commented that since entering the company, his vocabulary had increased, but his grammar was not good.

#### 4.2.2 Learner self-assessment results

One year after completing case study 1, the training participants Bill, Laura, Jeremy and Helena were asked to self-assess their workplace English communicative competence, writing and oral communication on a 1 - 4 rating scale, in which 1 represents the lowest proficiency and 4 represents the highest. The self-assessment results were analyzed using SPSS 21 and are shown in Table 7.

**Table 7: Self-assessment results for case study 1**

	N	Minimum	Maximum	Mean	Std. Deviation
Language aptitude self-assessment	4	2	2	2.00	.000
Writing	4	1	2	1.75	.500
Oral	4	1	2	1.50	.577
Valid N (listwise)	4				

From Table 7 we can see that the average score for the overall language competence is 2, which is equivalent to lower intermediate. Writing and oral scores reflect a perception of particularly low competence. Laura scored 1 in writing and oral communication. Jeremy also scored 1 in oral communication. Although we acknowledge the limitations of self-assessment, these low ratings suggest that the participants themselves do not feel that they have sustained a high level of English competence over time.

In case study 2, the training participants Michael, Sarah, Tania, George and Joan were asked to complete a self-assessment of their language aptitude five years after the completion of the program on the same rating scales as in case study 1. The results of the self-assessment are listed in Table 8 after the analysis.

**Table 8: Self-assessment results for case study 2**

	N	Minimum	Maximum	Mean	Std. Deviation
Language aptitude self-assessment	5	2	3	2.20	.447
Writing	5	2	3	2.40	.548
Oral	5	2	3	2.40	.548
Valid N (listwise)	5				

The training participants had an upper-intermediate level of language aptitude. Michael scored 3 in language aptitude, writing and oral communication, Sarah scored 3 in oral communication and Tania scored 3 in writing. These training participants had the potential to reach the advanced level of competence.

#### *4.2.3 Additional learning outcomes*

In case study 1, there were diverse additional learning outcomes garnered from this corporate program. Stephen observed that through workplace *EOP* training, the employees not only acquired professional improvement and salary increase, but also enhanced their confidence in using English on the job. Both Stephen and Laura noticed a positive change in the participants' attitude and interest in learning workplace English.

Stephen further explained if employees could have “*bigger progress, this is a big lift to employees' confidence*”, which was “*more important than salary increase or job promotion*”. It was important for employees to get interested and feel motivated as the course is very useful to them. Laura also agreed that interest and persistence could be generated after a period of English training as well as the desire to improve their English skill.

In case study 2, Michael explained that as the “*teaching model is a workshop*”, he could study together with his colleague in the factory, which helped to build up their teamwork through daily communication. They could understand each other using English, which increased “*communication methods or channels*”. Michael considered it a “*platform of communication*”. Tania indicated that she had an increased confidence after talking with her teacher and participating in classmate discussion in the classroom environment. The trainer also observed synergy among the training participants, which was good for organizational development.

#### *4.2.4 Long-term learning outcomes*

In case study 1, Stephen thought that the employees' workplace communication was becoming easier after three months' training. Compared to a low foundation in the language, they showed a

*“remarkable improvement in spoken English”* after the training, but these gains began to digress over time *“through not using English”*.

The trainer felt that the long-term learning outcomes depend on the business environment, whether English becomes a daily working language and whether employees are aware of the importance of continuous improvement.

The training participants of case study 2 felt that the long-term learning outcomes depended on the frequency of professional English use on the job. Michael elaborated:

*Previously, my work was confined to a small area. After that course, I have practiced a lot. After I had returned to China for more than one year, the frequency of English use became lower. Later there was more English professional vocabulary used in some emails or reports. But communication here is basically in Chinese, so there is not much use in this. English will be more useful if I work overseas.* (Michael)

#### *4.2.5 Sustainability of post-program learning activities*

In case study 1, most of the training participants were aware of the effect of interest on learning outcomes. A group of training participants continued their workplace English training and learning activities.

The training participants were also aware of the importance of perseverance, instrumental motivation, interest and the benefits of group learning. All of these measures contributed to continuous workplace English communication skills development. Helena thought that she should combine her interest and motivation. Bill explained that, by communicating with others at the same (English proficiency) level, his *“perseverance”* can be *“stimulated”*. For him, if there was *“progress, which generated economic or material improvement”*, he would be *“definitely motivated to continue learning English”*.

In case study 2, Michael explained that, although he did not participate in “*online training*” along with the “*traditional training*”, he did read some e-mail newsletters. He used English in the Singapore office and learned through “*online learning materials on the HQ website*”. He also joined some “*English related activities in Wuxi and Italy*”. George explained that he sometimes watched English movies but did not persist very long. He also tried some “*web-based training*”. On the job, George practiced English by communicating with “*expatriates, in the meeting and in the work*”.

#### *4.2.6 Skills development for employability and employment*

In case study 1, the trainer thought that workplace English communicative competence training was, essentially, a skills development process, through which the training participants enhanced their employability.

One technical support engineer explained that improving his workplace English competence, specifically his English presentation skills, may facilitate his international career development. Jeremy described two probable jobs that would have required him to travel around Asia and America. The “*basic introduction and question and answer*” portions of the interview process went well, but he had trouble with “*long presentations*”. He thought that if he could speak English, he would be able to “*travel around Asia*”.

In case study 2, the training participants thought that developing professional English communication skills would help their job application. Sarah thought that English skills were “*useful in recruitment*”, while Joan stressed that “*good English is helpful in job application*”. Pamela indicated that workplace English competence not only benefited job ability, but was also an important aspect of job promotion and salary increase.

Michael confirmed that “*English can benefit the promotion*”. He transferred from Wuxi to Singapore subsidiary because of his good English, which he said played “*an unforgettable role*” in his development on the job. Michael achieved excellence in workplace English communicative competence development, received a salary increase, and enjoyed international



career development, and served as a success example of *EOP* training in the Chinese workplace.

## **5. Discussion**

### ***5.1 Research question 1: How effective are EOP training programs in preparing employees for global business communication in the Chinese workplace?***

Gallo (2004: 119) stated that the evaluation of workplace literacy programs is essential to show the “value of the program” to program stakeholders by not only standard assessment but also meaningful impact measurement. This study is based in the Chinese context, which addresses the effectiveness of *EOP* programs in preparing employees for global business communication in the workplace. The study finds that the workplace *EOP* programs under study exhibit immediate effectiveness. The additional learning outcomes found are similar to those in previous studies, such as increased confidence, motivation to continue learning English in the workplace autonomously, career development, improved professional abilities and teamwork. The training participants and company decision-makers all agreed that workplace *EOP* programs helped them develop skills for employability.

However, it may be difficult to attribute considerable progress to the short-term workplace *EOP* programs. As Burt and Saccomano (1995: 3) suggested, “it is unlikely that a workplace *ESL* class of 40-60 hours will turn participants with low-level English skills into fluent speakers of English”. It is important to “realize that *ESL* workplace programs may not provide enough practice time to accomplish substantial progress in English language proficiency”. Similarly, considerable progress in workplace *EOP* competence development probably relies more on individuals’ commitment to the learning process and the opportunity of being exposed to the English working environment as the success example of Michael in case study 2 has demonstrated.

## ***5.2 Research question 2: What factors contribute to and hinder the effectiveness of EOP training programs in the Chinese workplace?***

Benseman (2012: 101 - 102) found that the “characteristics of effective courses” included “experienced tutors/providers, tutors with language and literacy qualifications, teaching content related to participants’ specific learning needs based on learning needs analysis and their work and personal needs and interests, participants with high motivation and a sense of commitment” while those which lead to ineffective courses were also discussed. This Chinese context study strongly confirms the previous studies through identifying factors that may contribute to or hinder the effectiveness of *EOP* training in the workplaces.

### **Factors facilitating effective program design**

The *course content and material* in these two case programs rely on ready-made course books, supplemented by case studies and professional vocabulary from the workplaces. For further improvement, the *ESP* literature suggests that the materials used in the workplace English programs should include “authentic materials drawn from the workplace, published materials and learner’s contribution related to problems in the workplace and learners’ oral and written narration” (Belfiore and Burnaby 1995: 79 - 102). These findings from the literature have been confirmed in this study.

The *class size* ranges from four to 12-person groups, which is comfortable for the trainer. The one-on-one group format is considered to be the most efficient, but may be tiring. Pair-work or a group of 8-12 people are considered optimum.

### **Factors hindering effective program design**

In the two case studies, limited information is collected during the *training needs analysis* stage through face-to-face talks with company decision-makers, which may be a factor hindering the program effectiveness. To contribute to the effectiveness of workplace *EOP* training, Dudley-Evans and St John (1998: 125) suggested collecting information relevant to “professional

information about the learners, personal information about the learners, English language information, what the learners lack, professional communication information through linguistic analysis, discourse analysis and genre analysis and information about how the course will be run” before the course commences, some of which is missing in the case studies, because of inadequate training needs analysis.

### **Factors facilitating effective program implementation**

In these two programs, the workplace *EOP delivery and methods* are in line with Hutchinson and Waters’ (1987) earlier methodology theories. The trainer has provided the learning *resources and support*, and on-the-job communicative competence development in the workplace has also offered a good channel of support.

### **Factors hindering effective program implementation**

In the *climate and environment* of the two case companies, the working language is Chinese in most scenarios, which may constrain on-the-job communicative competence development. When the working language is English, the chances of international business communication competence development may also increase.

## **6. Conclusion**

Based on the integrated evaluation framework developed for the first time in the literature, this evaluative study assesses the training effectiveness of two *EOP* programs in the Chinese context by looking at different variables. There could be gradual improvement after the program completion, aligned with the standard test benchmark, along with various additional learning outcomes and benefits. However such improvement may decline over time. During this period the training participants may continue English language related activities, one of whom has achieved excellent performance in business communicative competence development.

The study has also identified the positive and negative factors in the program design and

implementation to determine whether there is any “fault” in the process and whether there is room for improvement. In this study, most of the program design factors lead to effective program implementation. The training needs analysis could have been more thorough, to collect authentic workplace discourse for the course materials, which might have led to more effective, efficient program implementation. Most of the factors influencing the program implementation lead to short-term learning outcomes and long-term effects, except for the climate and environment, in which the use of Chinese as a working language may constrain effectiveness.

As workplace *EOP* training is context specific, different companies can generate different models of corporate programs. It is necessary to examine specific corporate contexts, if resources permit by applying or modifying the evaluation framework developed in this study. Future research can expand the study into other countries or regions with multinational companies who place great emphasis on professional communicative competence development. More cases are needed to improve the transferability of the findings to other industrial or cultural contexts.

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