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Assuming a Voice – A Commitment to Hearing Authors and Learners…

Roger Nunn

American University of Sharjah

David Young

Khalifa University, Abu Dhabi

Foreword

Welcome to the June 2020 issue of Asian ESP as we start our 16th year. In this issue, we would like to re-emphasize our commitment to providing a (first-person) voice to our authors. A first-person is particularly appropriate when emphasizing what the authors have contributed to the field by doing their study, in contrast to the literature review of what already appears to be established. We have often noted that journals such as *Nature* require this. A first person is also useful to transparently acknowledge our own assumptions, assuming we are aware of them.

The university lecture is still frequently used in many locations, but only relatively limited research attention has been given to the challenges of lectures in English-medium universities, where English is an additional language. In *Academic Listening Strategy Use at an English-Medium University*, Jarvis, Kohnke and Guan identify important challenges in their own (Hong Kong) context, "technical vocabulary, inferencing and focus" among others. We publish this paper based on our assumption that this study is not only highly relevant locally, but also resonates in many other cultural contexts across the globe. We would welcome more research in this area.

In another lecture-focused study in Iran, *Engineering Students' Levels on CEFR-Based Lecture Tasks, Strategy Use, and their Problems and Attitudes*, Taghizadeh and Namayandeh also investigate undergraduate students' use of listening skills. Again vocabulary was identified as a major issue alongside speed of delivery. Although in a different context, the authors have clearly identified a similar need to prepare students better for lectures and have identified vocabulary as one contributing issue to resolve.

In yet a third context, vocabulary was identified as an issue for students; this time in a medical school in Japan. In *A spoonful of humour helps the medicine go down: Enlivening academic English vocabulary learning in a medical English course*, Mathieson & Bolstad investigate the difficulties faced by freshman medical students. They present an original remedy that could perhaps be tried elsewhere: using humorous sentence lists. The initial results were not conclusive, but the authors are still able to conclude that the use of humorous sentences was justified, based on both research results and the positive feedback from students. A study worth replicating elsewhere.

In Teaching Style Preferences in EFL and EAP Teachers: Matches and Mismatches, Estaji and Esfandyari identify a mismatch, which may be indirectly related to the previous discussion on difficulties faced in English-medium lectures by freshman students. The mismatch that they identify is the teaching style of EAP teachers, compared to EFL specialists. The authors conclude that teacher training programs need to train teachers in different styles. Professional teachers are able to adjust their style according to the situation, rather than adopting a one-style fits all approach.

Staying with the theme that one size does not fit all, in *A Description and an Implementation of an Eclectic Approach to ESP and EAP Teaching at Non-English Universities: A Greek Case Study*, Ekaterini Nikolarea proposes the use of a methodology that has been tried and tested at a Greek public university for almost twenty years. She advances the case that students should have to acquire the skills to enable them to transfer knowledge back and forth between English and the language of instruction for local purposes and vice versa for global communication purposes. Although Nikolarea's research acknowledges the challenge faced by both instructors and students as they attempt to shift between linguistic, scientific, professional, and cultural contexts in a non-

English academic environment, it does not shy away from highlighting the importance of students finding their own domain-specific discourse, and ultimately voice, by practicing key skills such as summarizing.

This theme of self-awareness appears too in *Teachers' Perception of Content Knowledge and Language Knowledge in EAP Assessment: A Case of Argument-Based Approach toward EAP Validity*. Sarab, Najjarbaghseyah, and Vaezi interviewed a dozen EAP teachers to find out how the interviewees perceived their own practices of assessing EAP learners. With six content and six language specialists in the mix, the authors elicited a difference of opinion between the respective groups, confirming a divergence of views on the integration of 'language' and 'content' knowledges. The authors argue that both sets of specialists ought to collaborate more closely in order to deliver the optimum conditions for the interaction of specific purpose language knowledge and specific purpose content knowledge; otherwise, instructors' competing views can impact assessment validity. Mindfully, they also call for a replication of the study with a larger sample of specialists.

Revisiting the importance of voice, in *Informality in Academic Discourse: A Cross-Cultural and Cross-Disciplinary Investigation*, Kuhi, Sharghinezhad, and Rezaei found that Iranian and English authors took considerably different approaches. Most notably, the Iranian writers were more impersonal than their English counterparts, and this was evidenced in the use of first person pronouns. However, the cultures tended to converge more often in the soft disciplines than in the hard sciences. On closer inspection, Kuhi, Sharghinezhad, and Rezaei noticed that both cultures shared frequent use of some of the same informal features. Their results, irrespective of culture, indicate that each subject discipline has its own voice and as such its particular ways of explanation and argumentation, which highlights the challenges faced by the non-native writers of English.

Also in pursuit of increased language proficiency and agency, in *The Impact of ePortfolio Implementation on Motivation, Self-Regulation and Academic Language Development: the Learners' and the Teachers' Perspectives*, Flordelis González-Mujico sets out to evaluate the benefits of short-term ePortfolio curricular implementation within the framework of higher education ELT course objectives. Although she champions the curricular integration of ePortfolios, González-Mujico remains mindful of the caveats. If its adoption is based on sound

educational principles, and clearly linked to academic goals, she posits the electronic portfolio offers a learner-focused platform that can provide students with the tools and motivation to craft their contemporary digital identities, visualize their academic progress, and thereby enhance their learning experiences.

And finally, breaking relatively new ground, Atai and Shavegh, in *Call for Papers (CFPs) as a Growing Academic Genre: A Cross-Disciplinary Study of Established and Emerging Conferences*, also explored the respective disciplinary variations of both hard and soft sciences. They sought to determine if CFPs could be regarded as an academic promotional genre and compiled a corpus of 160 CFPs for analysis using Yang's model of generic move structure. Their findings signal implications for a range of stakeholders, most especially EAP students and teachers. The differences between CFPs for engineering, medicine, applied linguistics, and social science were found not to be significant; results also indicated that CFPs of these conferences could be considered academic promotional genres. Atai and Shavegh feel ESP practitioners can use the findings to endorse and create genre-based writing courses to prepare students for the production of appropriate academic and promotional texts. Moreover, fledgling researchers can appropriate the discourse conventions of the academic communities they wish to access. For others, it may well raise their profiles and facilitate their publications.

With a dedicated commitment to giving authors a platform to articulate their academic voices, many of the papers in this issue underscore the integral importance of facilitating learners' acquisition of vocabulary. From equipping them with the skills to navigate lectures to engaging in a novel humorous approach to learning weighty lexis, this collection of papers also looks concertedly to enhancing the learning experience. The studies exploring teaching style preferences and approaches of EAP, EFL, and ESP specialists certainly inform instruction and assessment practices – for the better; so too does allowing students the digital opportunities to regulate their own academic progress in personal ePortfolios. Ultimately, we are proud to say this issue honors the voices of scholars and novices alike.

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Academic Listening Strategy Use at an English-Medium University

Andrew Jarvis, Lucas Kohnke, & Gwen Guan

The Hong Kong Polytechnic University

Biodata

Andrew Jarvis is a Teaching Fellow in the English Language Centre, The Hong Kong Polytechnic University. He is the programme coordinator for discipline-specific English language courses and subject leads a professional English course for social science students. He is interested in language provision in English-medium contexts.

Email: andy.jarvis@polyu.edu.hk

Lucas Kohnke is a Teaching Fellow in the English Language Centre, The Hong Kong Polytechnic University. He is the subject leader for the general EAP course delivered to the majority of 1st year university students and subject leads professional English courses for School of Design students. He is interested in language provision in English-Medium context.

Email: lucas.kohnke@polyu.edu.hk

Gwendoline Yuanyuan is a Project Associate in the School of Nursing, The Hong Kong Polytechnic University.

Email: gwendoline.guan@polyu.edu.hk

Abstract

English-medium lectures can be the source of much frustration for students at universities where most learners and lecturers use English as an additional language. Developing listening strategy awareness can help students traverse the difficulties they encounter in lectures. This study reports

on the most challenging listening strategies for first-year undergraduates at an English-medium university in Hong Kong. Student reflections, an Academic Listening Strategy Inventory, and interviews were used as data gathering tools. Within a framework of perceptive, cognitive, metacognitive and socio-affective strategies, the most challenging items were technical vocabulary, inferencing and focus. In addition, some less commonly reported challenges were identified which highlight the complexities of academic listening in non-Anglophone English-medium contexts.

Key words: academic listening, listening strategies, self-reporting tool, English-medium university, lectures

Introduction

Rising numbers of universities in non-Anglophone countries are adopting English-medium policies in a bid to enhance internationalization and raise their profiles (Dearden, 2014). In these growing educational contexts, the majority of lecturers and students use English as an additional language. The use of English as the medium of instruction for all or part of their undergraduate studies can pose problems for students, especially for those who have minimal experience of studying content subjects in English. Often, the language levels of students are not high enough to cope with the demands of higher education in English (Starfield, 2015). At these institutions, lectures are often a site of struggle as students need to cope with discipline knowledge in English.

There is an increasing body of research which suggests that developing listening strategy use can enhance comprehension (Field, 2008; Rahimirad & Moini, 2015; Vandergrift, 2003b). This research highlights that listeners who are able to consciously employ a range of strategies to plan psychological operations and handle incoming messages are in a more advantageous position to arrive at comprehension (Field, 2008; Lau, 2017; Rost, 2011). Skilled listeners are able to orchestrate an ensemble of cognitive and metacognitive strategies to manage the listening process (Vandergrift, 2003b) and research suggests that increasing learners' awareness of strategy use can positively influence their listening development (Chen, 2009; Goh & Hu, 2014; Rahimirad, 2014; Vandergrift, Goh, Mareschal, & Tafaghodtari, 2006).

There is minimal research investigating the listening strategies employed in these growing English-medium academic contexts (Blackwell, 2017) and to address this gap, this study reports on the most challenging listening strategies for students during their discipline subject lectures. This article begins with a review on reported listening challenges in EMI contexts and looks at empirical studies on listening strategy instruction. We then give an overview of perceptive, cognitive, metacognitive and socio-affective strategies which form the framework for investigation. Implications and recommendations are offered to support listening provision in university language centres.

Literature Review

Listening Challenges in EMI Contexts

The few studies that have been conducted in university EMI contexts reveal some common areas of difficulty for students in their lecture listening. One such area is discipline specific vocabulary. For example, Chang's (2010) study of 370 Taiwanese undergraduates from various disciplines showed that almost half of the participants found vocabulary to be a problem. Chang attributes this difficulty in part to the lack of pre-reading and lecture preparation in English. In another study, Stepanovienė, (2012) also concludes that vocabulary is a major problem for learners. This study involved 118 law and police undergraduates in a Lithuanian university who reported challenges with legal vocabulary. In the same study, rate of delivery was perceived to be a problem and participants attributed this to their lack of vocabulary. In Japan, Blackwell (2017) used a self-rating tool and stimulated recall to research five first-year Japanese students undertaking lectures in English. Like Stepanovienė, Blackwell concludes that the rate of speech is a major barrier to listening comprehension. Again, technical vocabulary was revealed to be problem in this EMI lecture context. Another common area of perceived challenge is understanding the pronunciation of the lecturer. Hellekjær's (2010) study of 411 Norwegian and German students taking English-medium lectures concluded that a lack of clear pronunciation was the most severe problem. As stated in the article, it is unclear whether this relates to the quality of speech or the listeners' language ability. For Singh, Pandian and Singh's (2015) international students in Malaysia, accent was the source of frustration and especially listening to lecturers from different linguistic backgrounds. Singh reports that the challenge of coping with accents affected students' motivation

and willingness to contribute in class. Although the contexts of these studies vary, many of the challenges are related to perceptive strategies (see below) suggesting that students are struggling with the incoming stream of speech.

Listening Strategy Instruction

Practitioners can be comforted with some confidence that listening strategy awareness raising can have positive effects on listening comprehension, active strategy use and concentration. Some researchers have implemented listening programmes and tested students' listening development or perceived improvement in response to the intervention. One study in the Chinese context conducted by Zeng and Goh (2018) used a self-regulated learning portfolio which included various tools and reflective activities to increase listening strategy use and raise self-knowledge of the listening process. Results from pre and post listening tests suggest that performance was enhanced for all learners, especially the higher-level participants. In their study of Iranian learners, Rahimirad and Moini (2015) adopted an experimental research design in which one group of learners received listening strategy instruction. This treatment group outperformed the control group in a post-test with participants reporting that they had made gains in the active planning and monitoring of their listening. These participants also suggested that they were better able to maintain concentration despite encountering difficulties such as unknown words. In a study of college students in Vietnam, Nguyen (2018) used a qualitative approach including interviews, observations and narrative frames. The intervention was the integration of explicit listening strategy instruction into a language course. Participants reported more active and orchestrated use of listening strategies and felt that the intervention had positively affected listening comprehension. The three studies highlighted in this section represent a growing body of research which suggests that listening strategy intervention can have positive effects on listening comprehension, strategy engagement, and focus.

Academic Listening Strategies

Currently, "there is no universally accepted classification of listening strategies" (Lau, 2017, p. 504). Based on a review of the literature regarding listening strategies and academic lecture comprehension, this article will classify academic listening strategies into four major areas: (a)

perceptive strategies (b) cognitive strategies, (c) metacognitive strategies, and (d) socio-affective strategies (Goh, 2000).

(a) Perceptive Strategies

These strategies are used to perceive and encode the phonemes one hears in order to make a mental representation of the utterance (Anderson, 1995). Perceptive strategies, known as the bottom-up strategies or micro-skills in listening, deal primarily with the perception of sounds and recognition of words. This includes discriminating among sounds, understanding the stress, rhythm and intonation, and identifying word boundaries (Wilson, 2018). In the literature, there is consensus that it is easier for students to listen to English from speakers who share their first language (Evans & Morrison, 2011b; Miller, 2009). Speech and word recognition are frequently reported problems, especially for lower ability students (Goh, 2000; Graham, 2006).

(b) Cognitive Strategies

Cognitive strategies are mental processes that students utilize to act directly on input so that they can make sense of what they have heard. Cognitive strategies include the inferencing of missing information, using prior knowledge to complete interpretation, identifying the most important information, relating one part of a text to another, and linking interpretation to wider contexts. High ability listeners make use of a range of cognitive processes to accomplish a task more effectively. A body of quantitative research suggests that cognitive strategies involving higher-level processing, like summarizing ideas and inferencing, tend to be more challenging than lower-level ones, such as identifying local information (Goh & Aryadoust, 2014; Lee & Sawaki, 2009).

(c) Meta-Cognitive Strategies

A person's meta-cognitive awareness is their self-knowledge about learning (Flavell, 1979). In terms of listening, this knowledge refers to a student's awareness of his or her own problems in listening and the ability to manage and act on these problems using specific and targeted strategies. Meta-cognitive strategies in academic listening may include pre-listening preparation, monitoring, evaluating, and problem solving (Goh, 2002; Vandergrift et al., 2006). Higher proficiency listeners use meta-cognitive strategies more frequently and flexibly than lower proficiency students to meet task demands (Goh, 2002; O'Bryan & Hegelheimer, 2009; Vandergrift, 2003a). In addition, the

use of meta-cognitive strategies appears to correlate positively with increased performance, motivation, and confidence (Goh & Hu, 2014; Harputlu & Ceylan, 2014; Vandergrift, 2005).

(d) Socio-Affective Strategies

These strategies play an important role in the listening process and can involve other people to help achieve understanding (Chamot, 1993) or the self to manage disruptions and negative emotions. Vandergrift (1997) proposed five categories of socio-affective strategies for listening; namely, questioning for clarification, cooperating with others, lowering anxiety, encouraging oneself, and taking emotional temperature.

While perceptive and cognitive strategies pertain to the unconscious processes of managing input, meta-cognitive and socio-affective strategies are concerned with the conscious management and regulation of one's cognition and mood over the listening process.

The Study

Research Questions

1. What are the most challenging listening strategies for students at an English-medium university?

2. Which factors impact students' perceptions of their listening strategy use?

Academic Listening Strategy Inventory

As part of the study, an Academic Listening Strategy Inventory (ALSI) was developed and used as a research tool to identify listening strategy challenges. The ALSI is a 27-item list of listening strategies based around the four strategy areas highlighted above and was used as a self-reporting tool for students to develop awareness of their strengths and weaknesses in academic listening. In previous studies, self-reporting tools have been used as a reliable method of gauging the frequency of use or challenge of language strategies (e.g. Oxford & Nyikos, 1989; Aryadoust, Goh & Kim, 2012). When completing the ALSI, respondents rated how challenging the listening strategies were when reflecting on discipline lectures in English. The ALSI uses a four-point scale of 1: Very

challenging, 2: Challenging, 3: Quite challenging, and 4: Not challenging. A fifth response option was also included: Never encountered this problem.

Participants

Participants were 103 first-year undergraduate students at a government-funded university in Hong Kong where English is the official medium of instruction. An almost even proportion of male (N=53) and female (N=50) students completed the ALSI. Most students were local (Hong Kong, N=92), and the remaining participants were from Mainland China (N=10) and Taiwan (N=1). Eight of the Mainland Chinese students completed their secondary schooling in Hong Kong. Just over half of the participants stated that they graduated from Chinese-Medium Schools (CMI) (N=52) and the rest graduated from English-medium schools (EMI) (N=51). It should be noted that the Hong Kong students were stating the main medium of instruction of their secondary schools but the classroom reality of language use differs from school to school and within schools (See Evans & Morrison (2018) and Poon (2013) for further insights into language policies in Hong Kong). The participants came from seven of the university's eight faculties and schools with the largest numbers coming for the Faculty of Engineering (N=37) and the Faculty of Business (N=25). We received no responses from students of the Faculty of Humanities which includes English major students. Ninety-seven participants had taken the Hong Kong Diploma of Secondary Education (HKDSE) which determined their entry into university. Their English test results ranged from level 1 - 4 (see Table 1 for a comparison with IELTS scores). The minimum university entry for degree courses at our institution is usually HKDSE level 3 (IELTS 5.58) with many degree courses requiring higher scores. You can see in the table below that our study focuses on the lower entry students. Within this group, the participants with HKDSE scores of 1 or 2 are likely to be taking sub-degree programmes. Table 1 highlights that participants graduating from English-medium schools were more likely to have higher HKDSE scores in English.

Table 1: English Scores of Participants and Medium of Instruction

HKDSE level	IELTS conversion (HKEAA, 2013)	EMI schooling	CMI schooling
5**	7.64	0	0
5*	7.24	0	0

5	6.90	0	0
4	6.41	3	2
3	5.58	34	14
2	4.93	12	31
1	No conversion available	0	1
Total		49	48

Two other participants provided other public English tests grade (one scored 6.5 in IELTS, one 597.5 in TOEFL, one scored 115 in the GaoKao in Mainland China). Others responses were missing.

Data Collection

This study uses a mixed-methods research approach using a sequential design (Mackey & Bryfonski, 2018). To reduce our predetermined ideas of which listening challenges students face, we started with a qualitative stage (learner reflections) which then informed the survey (ALSI) design. After implementing the ALSI, focus groups were conducted to give deeper explanations. The learner reflections and ALSI were conducted during the second semester of the participants' first year at university. Focus groups were held soon after the second semester.

Stage 1

40 students completed a 100-200 word written reflection about the challenges of listening in their discipline lectures. The reflections were conducted in the first researcher's academic English class and the students were a similar cohort to those who completed the ALSI. The researcher explained the nature of the research and that responses would be anonymous and would not affect grades. Participants were given the opportunity not to consent. All students wrote in English but were given the opportunity to reflect in their first language. They took around 20-25 minutes to write their reflections. These reflections revealed challenges not commonly found in the literature which may be specific to English-medium contexts. These items were included in the ALSI in the perspective and socio-affective categories. Examples include '*Dealing with a lecturer's lack of intonation or stress*' and '*Understanding a lecturer with a low level of English*'.

Stage 2

Based on responses from the learner reflections and incorporating strategies from the literature on second language listening (especially Aryadoust, Goh & Kim, 2012), the ALSI was developed and piloted with one group of 20 students. Minor wording revisions were made to the ALSI based on student feedback.

Stage 3

The finalized ALSI was administered through the university's own survey platform. URL links and QR codes were shared with instructors teaching academic English courses at the university's English Language Centre. As secondary school exam results determine the English courses students take, instructors teaching the lower level students were targeted.

Stage 4

Focus groups which adopted a semi-structured interview protocol were conducted to shed light on the quantitative results from the ALSI and provide deeper responses. Seven students participated in three focus group sessions lasting on average 29 minutes. Participants included five males and three females from three faculties.

Data Analysis.

For qualitative data, initial and focussed coding (Saldaña, 2009) was carried out on the reflective accounts to find the main listening strategy categories, and interviews were transcribed and thematically analyzed. For quantitative data analysis, we used the software package SPSS version 24.0. Values 1, 2, 3, 4 were assigned to replace the first four points of the scale from 'Very challenging' to 'Not challenging', and 'Never encountered this problem' was regarded as a missing response. Overall, the reliability of the ALSI is high (Cronbach's Alpha=0.97) and each sub-strategy area has high reliability, ranging from 0.89 to 0.93. This outcome suggests that the results are consistent and reliable. Independent sample t-tests were utilized to find differences between male and female, and EMI and CMI students.

Results

The results show that the means of the 27 strategy items range from 2.70 to 3.42 with the overall mean of 3.09 and a standard deviation of 0.92, suggesting that the responses tend to be central and that the respondents generally found the listening strategies to be quite challenging. Overall, understanding technical vocabulary (PC5), keeping listening when feeling bored/tired (SA3) and inferencing (CN3) were seen as the most problematic items. Overall, the socio-affective category had the highest number of perceived challenging items. Male participants perceived all but one (SA7) of the strategies as more challenging than females with statistical differences shown especially in the perceptive, cognitive and metacognitive strategies. CMI participants found most items (20 out of 27) to be challenging with statistical differences found between EMI and CMI students in seven items including four cognitive strategies.

Table 2: Perceptive Strategies

Label	Academic Listening Strategies	Mean	S.D.
PC1	Understanding (some of) the lecturers' accents	3.01	1.023
PC2	Understanding (some of) the lecturers' pronunciation of individual/connected words	3.13	0.992
PC3	Keeping up with and understanding lecturers who speak fast	3.00	0.978
PC4	Dealing with a lecturer's lack of intonation or stress	3.11	0.935
PC5	Understanding unfamiliar or technical vocabulary	2.70	1.086

The most challenging item in the ALSI was understanding unfamiliar or technical vocabulary. There was a statistically significant difference between males and females ($p< 0.05$) suggesting that males (M=2.44, S.D.=1.10) in particular found this item to be a challenge. However, females also rated this item as challenging (M= 2.96, $S.D.$= 1.09). Limited vocabulary knowledge and unfamiliarity with technical terms are well-reported in the literature to be major barriers for EFL listening comprehension (Bonk, 2000; Stæhr, 2009; Vandergrift & Baker, 2015; Wang & Treffers-

Daller, 2017). As highlighted earlier, vocabulary also causes problems for students in university settings which use English as the teaching language (e.g. Chang, 2010, Stepanoviene, 2012). Academic lectures are abundant in discipline-specific terminology and lecturers might not always be aware of students' unfamiliarity with these terms. This causes students' frustration with the lecture content and loss of the thread of teacher explanation or discussion (Evans & Morrison, 2011a). One student stated:

"For me I just can't keep up to unfamiliar vocabulary, such as those communicating definition, so I will just feel bored and not focused… I think that's the main reason."

In another finding, CMI students were more likely to perceive pace (PC3) as a challenge than EMI students ($p < 0.01$). This suggests that these students are caught up in dealing with the incoming stream of speech which may leave less processing time for cognitive and metacognitive strategy use. The finding that students perceive difficulties with the speed of speech in lectures supports existing studies (e.g. Blackwell, (2017), Stepanoviene (2012). The finding highlights how undergraduates' previous schooling language can affect their lecture experience.

In other items, males found it more challenging ($p < 0.01$) to listen to the pronunciation of their lecturers (PC2), and encountered lack of intonation and stress to be problematic (PC4). Interview data suggests that local students found Hong Kong English easier to perceive, supporting the studies of Evans and Morrison (2011c) and Miller (2009).

Table 3: Cognitive Strategies

Label	Academic Listening Strategies	Mean	S.D.
CN1	Identifying important details (e.g., names, dates, and numbers)	3.31	0.939
CN2	Distinguishing main points from supporting ideas	3.18	0.973
CN3	Understanding meanings that are not directly stated	2.83	0.890
CN4	Using my own knowledge to fill in any missing information from the lecturer	3.05	0.922

CN5	Summarizing the information from a lecture	3.13	0.931
CN6	Understand when the lecturer moves to a new topic	3.34	0.922

The third most challenging item in the ALSI is the cognitive strategy of inferencing (CN3) and this item was more problematic for CMI respondents ($p< 0.05$). Background or subject specific knowledge was reported to be a reason for difficulty with this strategy. One interviewee relayed that:

"I am not familiar with knowledge so I cannot conclude when the lecturer says it."

This challenge is well reported in the literature as it requires higher-level cognitive processing (e.g. Buck, 2001; Rost, 2011). This process is very challenging for those who do not have sufficient background knowledge of the topic and adds to the cognitive load of students who are already struggling to decode the incoming speech. If CMI students are using more energy on the perceptive stage of listening, they may be less able to deal with the challenging task of inferring what a lecturer means and applying it to their discipline knowledge. This could leave them further behind in the development of their subject knowledge.

CMI schooled students also perceived difficulties compared with EMI students ($p < 0.05$) in the cognitive strategies of distinguishing key points (CN2), summarizing information heard (CN5) and knowing when a lecturer moves to a new topic (CN6). Again, it is possible that as these students spend energy on perceiving the lecturer's messages, they are unable to act on the information heard. The results concerning cognitive strategy use in our context support findings in the general literature which highlights that lower level learners are held back at the decoding stage of listening (Goh & Hu, 2014).

Table 4: Metacognitive Strategies

Label	Academic Listening Strategies	Mean	S.D.
MC1	Doing topic-related tasks (e.g., reading, video) before the lecture (to increase background knowledge)	3.13	0.849

MC2	Rehearsing pronunciation of topic-related vocabulary before lectures	3.03	0.923
MC3	Using the purpose, scope and main topic of the lecture to help understanding	3.11	0.905
MC4	Using the overall structure of a lecture (i.e., how it starts, continues, and ends) to help understanding	3.18	0.906
MC5	Using the PowerPoint/handouts to help me understand what the lecturer is saying	3.42	0.854
MC6	Observing the lecturer's body language to help understand what he/she is saying	3.25	0.875
MC7	Correcting my understanding of lectures immediately if my understanding is incorrect	3.06	0.938

Interestingly, the results show that all of the overall mean scores for metacognitive items fell into the 'quite challenging' category with none in the challenging or very challenging categories. The least challenging item in the ALSI was using visuals such as PowerPoint (MC5) to aid comprehension. Male students generally found the metacognitive items to be more difficult. For example, statistical differences ($p < 0.01$) were found in using lecture structure (MC4) and visuals (MC5) to inform understanding. Other items (MC2/MC3/MC6) also showed statistical difference at p-value lower than 0.05. Using the purpose, scope and main topic (MC3) and lecture structure to aid understanding were found to be a challenge for CMI students as compared with EMI students ($p < 0.05$). These results suggest that the female students are more confident in monitoring their listening and employing certain metacognitive strategies.

Table 5: Socio-Affective Strategies

Label	Academic Listening Strategies	Mean	S.D.
SA1	Understanding a lecturer with a low level of English	2.95	1.014

SA2	Listening to lecturers who mix English with Cantonese	3.33	0.944
SA3	Keeping listening even when you feel bored or tired	2.71	0.909
SA4	Encouraging myself to listen to the lecture despite difficulty	2.95	0.808
SA5	Asking (lecturers or classmates) for clarification	3.24	0.750
SA6	Listening to a lecturer who speaks a different type of English to me	3.10	1.001
SA7	Focusing on the lecture despite distractions from social media (e.g. Facebook) or incoming emails	2.95	0.908
SA8	Focusing on the lecture despite doing other work (e.g. for other subjects)	2.95	0.953

Overall, socio-affective items were seen to be the most challenging for these students. The second most challenging item in the ALSI was 'Keeping listening when feeling bored or tired' which pertains to students' self-motivation and encouragement to engage in the lecture. Five focus group interviewees attributed this to the early schedule of 8:30 lessons where they did not get enough sleep for high concentration on the lecture. Lecture scheduling therefore had an impact on listening attention. Another reason for students' demotivation was lecture content, which made students feel bored and led to difficulty keeping up with the teacher's pace. It was reported that lecture delivery was, at times, authoritarian in style. As a result of these factors, students felt frustrated and resorted to lowering concentration or giving up.

As well as lecture scheduling and delivery style, listening to lecturers with a low level of English (SA1) caused frustration for some students. Although two interviewees showed positive attitudes towards their lecturers' English, others felt disappointed, with three interviewees reporting that their lecturers' English was poor. Over time, these students lowered their expectations and became more familiar with their lecturers' English. As one participant noted:

"No matter they have accent, I think it's okay… I can say they really try hard to, so as a student we have the responsibility to understand the gap. Even they have accent, everyone has accent, so I think it's not the problem."

In other socio-affective items, students rated distraction as an impediment to listening comprehension. Engaging in course-irrelevant multitasking, such as replying to emails or messages (SA7) or completing assignments for other subjects (SA8) featured in the challenging category. These items are probably related more to focus than listening ability and in another study, media multitasking in lectures was linked to lower attainment of learning outcomes (Wammes et al., 2019). Most interviewees reported that the reason for attending lectures, despite not being able to give their full attention, was to meet the attendance requirement or to listen out for examination tips.

Implications and Recommendations

Listening Strategies in the Local Context

This study has revealed some less commonly reported listening challenges which include listening to speakers who have a lack of intonation, listening to lecturers who mix English with other languages, and listening to lecturers who have a low level of English. These challenges were articulated by students in their learning context through the use of learner reflections and these reflections informed the design of the self-rating tool (ALSI). As well as raising awareness about learner needs, context-informed self-rating tools can be used to develop students' ongoing listening skills. Goh and Hu (2014) recommend that these types of tools, implemented throughout a study programme, can be used to initiate discussion and reflection on listening processes. These authors highlight that strategy checklists can be employed to help students articulate their listening experiences and build awareness of metacognitive processes. The socio-affective results presented in this study also suggest a need for practitioners to focus on motivational factors as well as cognitive factors when working with learners on the development of their listening (Chon & Shin, 2019).

Helping Weaker Learners

The results indicate that language of schooling and gender impact students' use of listening strategies. Many of these students exert much effort on decoding incoming messages leaving less capacity for higher level cognitive and metacognitive processes. It is important for language centres to identify these students and address their needs so that they can make the most of their studies at university. One way to approach this is through personalised learning opportunities such as mentoring schemes conducted in language centres (Kohnke & Jarvis, 2019). These less formal opportunities can help students to reflect on their language learning and develop strategy use which can cushion the shock of studying in English.

The Interplay of Strategy Use

A multitude of dynamics affected the listening experience of the respondents. This included students' discipline knowledge, energy levels and use of electronic devices. Delivery style and the level of English of the lecturer were also influencing factors. External pressures such as the need to complete other work also had an impact. Many of these factors influence each other, for example, bemusement with terminology can negatively influence motivation. Helping students to articulate how these different factors impact their lecture listening could help to build their self-awareness and pave the way for enhanced strategy use. In terms of language development, vocabulary seems to be an area which can have a high impact on students' perceptive listening which in turn could positively affect other strategy areas. To achieve this, language instructors can teach vocabulary strategies (e.g. see Akbari, 2011) and students could be provided with subject specific glossaries (Blackwell, 2017).

Limitations of the Study and Future Research

This study identified socio-affective strategies as particularly demanding but focus group data was limited in fully understanding how these strategies interplayed with the other strategy areas. Future research could therefore look more at the interplay between strategies. Taking an in-depth, longitudinal approach over the first year of university may help to begin understanding the complex dynamics between the listening strategy areas.

Conclusion

Lectures remain a common method of teaching in many universities and cause much frustration for students in EMI contexts. This research set out to pinpoint the most challenging listening strategies and used reflective accounts and a self-rating tool for this purpose. The research confirmed some well-established findings in the literature including the difficulty of subject-specific terminology and inferencing. Other challenges like listening to a lack of intonation and stress may be context-specific. Many socio-affective items were rated as challenging and they relate to self-encouragement, focus and lecturers' language levels. With high numbers of students and staff using English as an additional language, non-Anglophone EMI universities may be a context where some of these dynamics cause greater constraints. Other factors such as multi-media use during lectures are likely to affect many universities regardless of the language context.

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Engineering Students' Levels on CEFR-Based Lecture Tasks, Strategy Use, and their Problems and Attitudes

Mahboubeh Taghizadeh and Nasrin Namayandeh

Iran University of Science and Technology

Biodata

Mahboubeh Taghizadeh is an Assistant professor in TEFL at the Iran University of Science and Technology. She holds a PhD in TEFL from University of Tehran, an MA in TEFL from Iran University of Science and Technology, and a BA in English Language and Literature from Az-Zahra University. She has published in some national and international journals. She has also presented some papers at international conferences. Some of her current interests include EAP, Teacher Education, and CALL.

Email: mah_taghizadeh@iust.ac.ir

Nasrin Namayandeh graduated in TEFL from Iran University of Science and Technology. She has been teaching English for over 15 years. She has also presented some papers at national/international conferences. Some of her current interests include EAP, Teacher Education, and CALL.

Email: na.namayande@gmail.com

Abstract

The purposes of this study were (a) to determine the undergraduate students' levels on lecture listening comprehension tasks based on CEFR, (b) to explore the differences between low level and high level listeners in the use of lecture listening strategies, and (c) to find the attitudes and problems learners expressed about listening to lecture. The participants in the study were

undergraduate students of Engineering (*N*=94) at the Iran University of Science and Technology. Four lecture tasks at four levels (A2, B1, B2, & C1) chosen from *Real Listening and Speaking* (Craven, 2008) and a revised version of Abdalhapmid's (2012) questionnaire on listening strategies followed by five open-ended items on learners' attitudes, problems, and strategy use were the instruments of this study. The results showed that only 9.6% of the participants were placed at C1, while 28.7% of them were placed at 'below A2'. The results also showed that low proficient listeners used more cognitive strategies, while high proficient listeners used more socio-affective strategies. The results of ordinal logistic regression also revealed that only learners at B1, B2, and C1 levels showed statistically significant differences in the use of socio-affective strategies. The most frequently encountered problems were the insufficient vocabularies and the speed of delivery. The findings suggest that strategy instruction be offered in the academic listening courses.

Keywords: academic listening, attitude, lecture, listening strategies, listening problems

1. Introduction

Listening is considered as an important skill in language learning in academic environments (Al-Yami, 2008; Flowerdew, 1994; Shabani & Malekdar, 2016; Talebinejad & Akhgar, 2015). As Flowerdew (1994) argues, a general part of the university events, both domestic and international, includes listening to discourses and promoting academic listening skills. Listening is generally a difficult and challenging skill for EFL learners. The new and the unfamiliar content or the lack of background knowledge can be one of the reasons for these difficulties and complexities (Yazdanpanah, 2014). Many studies (e.g., Brown, 2008; Feyten, 1991; Rost, 2001; Vandergrift, 2007) have emphasized that listening comprehension is at the heart of all kinds of language learning, and improving listening skills can develop other language skills (Dunkel, 1991; Rost, 2002). However, listening has received the least attention compared to other skills (Bozorgian, 2012; Brown, 2008; Lynch, 2011; Vandergrift, 2007).

Although listening to lectures and taking notes are the limited interpretations of academic listening (Lynch, 2011), lecture comprehension is considered as the most frequently used task in academic contexts (Jeon, 2007; Lee, 2009). It is accepted that L2 learners face a lot of challenges at English-speaking colleges; therefore, great attention needs to be given to instruct the students for improving

their listening skills to help them reach their aims in academic courses (Ferris & Tagg, 1996).

The importance of direct instruction in developing students' academic listening skills has been highlighted in some studies (e.g., O'Malley & Chamot, 1990; Swan, 2011). However, students face a number of challenges while listening to academic lectures (Jeon, 2007). For instance, Flowerdew and Miller (1996) and Underwood (1989) point out three major problems including speed of delivery, new vocabulary and meanings, and lack of concentration for language learners. Other major problems are the lack of knowledge (Goh, 2005; Underwood, 1989); difficulty in note taking and processing (Gruba, 2004); lecturers' accents (Flowerdew, 1994); listeners' attitudes and the psychological aspects such as stress and fatigue (Anderson & Lynch, 1988).

Many studies on language learning strategies (e.g., Chamot & El-Dinary, 1999; Khaldieh, 2000; Vandergrift, 2007) have indicated that successful listening is closely related to the strategies L2 learners choose. Listening strategies are classified into metacognitive, cognitive, and socio-affective strategies (Flowerdew & Miller, 2005; O'Malley & Chamot, 1990; Vandergrift, 1997). O'Malley and Chamot (1990) described metacognitive strategies as the executive strategies, which are used for monitoring and evaluation of the learning process. Cognitive strategies are concerned with the incoming data, which can increase learning, while socio-affective strategies are used to collaborate with other learners or to have self-conscious control (O'Malley & Chamot, 1990).

A number of studies (e.g., Alavi & Janbaz, 2014; Ansari & Mehrdad, 2016; Azadi, Zare, & Khorram, 2015; Bidabadi & Yamat, 2011; Gilakjani & Sabouri, 2016; Mohseny & Raeisi, 2009; Moradi & Shahrokhi, 2014; Nowrouzi, Tam, Zareian, & Nimehchisalem, 2015; Vahdany, Akbari, Shahrestani, & Askari, 2016) have been done on listening comprehension in the Iranian context; however, until now there seems to be no study exploring the level of proficiency of undergraduates listening to Engineering lectures. In addition, there is no study on listening strategy use of higher and lower level Engineering students in lecture listening comprehension tasks. Therefore, the purposes of this study were to estimate Engineering students' lecture listening level based on CEFR, to identify lecture listening strategies used by successful and less successful listeners, and to determine Engineering students' attitudes, problems, reasons, and their solutions for their problems in the lecture listening tasks. In this study, the following research questions were formulated:

1. Is there any statistically significant difference in the lecture listening levels among undergraduate students of Engineering?
2. Is there any statistically significant difference between low proficient and high proficient listeners in the use of lecture listening strategies?
3. What are engineering students' attitudes towards listening to lectures?
4. What are the Engineering students' problems in listening to lectures? What are their reasons for their problems in listening to lectures? What are their suggestions to solve their problems?

1.1. Context of the Study

In Iranian schools English is taught three hours a week, and the textbooks consisted of words, dialogs, and pattern practice (Akbari, 2015). Several studies (e.g., Birjandi, Soheili, Nowroozi, & Mahmoodi, 2000; Birjandi, Nowroozi, & Mahmoodi, 2002a, 2002b) have revealed that the focus of the English textbooks in Iran is reading comprehension. Jahangard (2007) and Akbari (2015) argue that the tasks in the Iranian English textbooks do not cover necessary language skills such as listening and speaking, and the content of the English high school books are based on reading and writing activities (e.g., Akbari, 2015; Eslami, 2010). In addition, the method of English teaching in Iran is grammar translation (Dolati & Seliman, 2011). Nimehchisalem and Mukundan (2015) note that when these students have to deal with audio materials at the university level, they encounter a lot of difficulties before gaining the necessary listening skills.

This study was conducted at the Iran University of Science and Technology (IUST), which is one of the best universities in Iran, and students with high ranking on the entrance examination can be accepted in this university. In the Language Department of the IUST, engineering students should take two language courses: EGAP and ESAP. In the EGAP course, all students have to study *English for the Students of Engineering*, which is a textbook containing numerous reading texts and grammar and vocabulary exercises. In the ESAP course, an integrative approach for teaching language skills is used in which as well as reading and writing tasks about their majors, learners are asked to have presentations and make summaries of the lectures and discussions about various issues related to their discipline.

Listening is regarded as important as reading skill in the Language Department of the IUST, as a great amount of information about various issues of engineering can be accessed through listening files in English, and some of the academic courses at the IUST are taught in English. In addition, in most engineering schools of IUST, numerous lectures, workshops, conferences, training courses are offered in English by scholars from other countries that in order to effectively make use of these events, learners need to have appropriate academic listening skills. Therefore, it was decided to offer a systematic instruction for the academic listening and in their EGAP course students are asked to take a separate one-hour course for academic listening in the laboratory of the department. However, no research has been conducted in this context to determine the students' attitudes, problems, listening levels, and strategy use in academic listening.

2. Review of the Related Literature

2.1. Academic Listening

Academic listening is stated to be the most important issue in the universities, but it is ignored by the researchers and L2 instructors (Brown, 2008). Huang and Finn (2009) stated that academic listening involves various kinds of activities including listening to the description of teachers' programs and assignments or listening to classmates' questions, messages, and summaries. Listening to lectures is the essential need for English for Academic Purposes (EAP) learners and is the most challenging area for university students due to their lack of exposure to lecture tasks in the general English classes and their difficulties in comprehending the lectures (Huang & Finn, 2009).

There are many differences between academic and general listening. As Mason (1995) stated, most high level students understand everyday listening, but they confront a lot of challenges in the academic listening. Flowerdew (1995) stated that academic listening is different from general listening due to the fact that: (a) academic listening needs to be comprehensible for students; (b) learners need to have some kind of background knowledge and ability to recognize the relevant and irrelevant content, (c) they need to know how to use turn taking, (d) they should concentrate on the topic despite the speed of the lectures, and (e) they need to take notes and complete the next delivered messages with information coming from the textbook, handout, board, and so on. Flowerdew (1994) states that the special features of academic listening include its nonreciprocal

nature, special vocabulary, and the long speech. Thus, general English proficiency and good listening skills are two factors, which can help students to succeed in their academic courses; however, these two factors seem to be separate categories, each with their own features (Goh, 2008).

Academic listening may be characterized on the basis of two models: one-way listening and two-way listening. One-way listening occurs in the universities including academic presentation conferences, while two-way listening involves English language users, teachers, and students who are communicating about an event (Lynch, 2011). In two-way listening, students use different communicative events such as group discussion, team projects, and conversations, but in one-way listening they face a lot of problems while listening to lectures (Gruba, 2004).

2.2. Lecture Listening Task

Lecturing is the most usual method of teaching in academic courses in universities (e.g., Flowerdew & Miller, 1996; Jeon, 2007; Lee, 2009; Long & Richards, 1994; Morell, 2004; Oxford, 1990; Scerbo, Warm, Dember, & Grasha, 1992). Lectures are defined as "the method of information transmittal most often encountered by college students in the university instructional setting" (Dunkel, 1988, p. 11). The lecture was described not only as a speech act but also as a social event by several ethnographic studies as the lecturers are able to make the listening comprehension easier for the listeners (Morell, 2004). Benson (1989) considered the lecture as a major instrument in most college study. Rost (2002) noted that understanding lectures is a fundamentally inferential process as the listeners should simultaneously use both linguistic and world knowledge of what they hear to make a mental representation (Hulstijn, 2003).

Research into listening to lectures is neglected because listening skills and listening comprehension are inherently complex (Lynch, 2011); however, it is stated that good lecture listening comprehension leads to academic success (Jeon, 2007). Richard (1983) recommended some skills for effective understanding of the lectures: (a) comprehending the aim of the lecture; (b) recognizing the topic of the lecture; (c) connecting the elements of the lectures (i.e., finding the relationship among the main idea, supporting idea, and instances); (d) finding the structure of the lectures; (e) identifying the key words related to the topic of the lectures; (f) inferring the meaning of the unknown words from the context; (g) deducing the relationships including cause

and influence; and (h) following the lecture and the data transfer from the other media. Listeners can improve their listening skills and become proficient in comprehending lecture listening if they are aware of their own strategies, problems, and attitudes towards listening to lectures (Hassan 2000). The next sections of the Literature Review are devoted to these issues.

2.3. Lecture Listening Strategies

Numerous studies (e.g., Bozorgian, 2012; Carrier, 2003; Chen, 2005; Goh, 1998, 2002; Khaldi, 2013; Liu, 2008; Moradi, 2012; Shang 2008; Serri, Jafarpour, & Hesabi, 2012; Selamat & Sidhu, 2011; Vandergrift & Tafaghodtari, 2010; Song, 2016) have highlighted the importance of instruction in the lecture listening comprehension and the strategy use by listeners as using strategies can facilitate the processes of comprehending academic lectures (Flowerdew & Miller, 2005). There are three kinds of lecture listening strategies, which the listeners can employ to listen effectively: metacognitive, cognitive, and socio-affective strategies (Azmi, Celik, Yidliz, & Tugrul, 2014; Chamot, 1993; Flowerdew & Miller, 2005; Oxford, Lavine, & Crookall, 1989; O'Malley & Chamot, 1990; Rost & Ross, 1991; Vandergrift, 1997).

Metacognitive strategies include advance organization, directed attention, problem identification, thinking about the listening process, planning for listening, selective attention, monitoring listening, and self-evaluation after the task has been completed. The significance of metacognition for learning L2 listening has only been examined in recent years (e.g., Cross, 2010; Goh, 1997; Vandergrift & Tafaghodtari, 2010), and its significance has been recognized for better managing the listening process (Vandergrift, 2003). According to Vandergrift (2004), listeners can complete the lecture tasks by using prediction, monitoring, evaluation, and problem-solving strategies.

Cognitive strategies, on the other hand, involve inferencing, elaboration, note taking, summarizing, and resourcing. Goh (1998) found that high proficient listeners employ six cognitive strategies, four of which are top-down strategies including inferencing, elaboration, prediction, and contextualization for which the listener needs to use prior knowledge, while the other strategies are fixation and reconstruction. Listeners use inferencing strategy when they cannot comprehend the meaning of unfamiliar words or phrases. Another cognitive strategy is elaboration, which connects new data to existing knowledge to cause more comprehension. Prediction, as suggested by Goh (1998), is another strategy by which the listeners can predict a word, a phrase, or an idea

from the title or the topic of the lecture. Through contextualization, the listeners try to connect new information to a broader context or situation to comprehend it (Goh, 1998). The cognitive strategy which both high and low proficient listeners use is fixation: they concentrate on one small part of the spoken text to comprehend it, or they repeat a sentence in their mind in order to understand the meaning of one word (Goh, 1998). Goh further stated that the final cognitive strategy is reconstruction for which words from the text and background knowledge are used to grasp the main idea.

Socio-affective strategies entail some techniques such as lowering anxiety, cooperation, and self-encouragement that the listener employs for communicating with others to understand listening (Flowerdew & Miller, 2005; Vandergrift, 2003). Vandergrift (1997) stated that it is essential for the listeners to know how to decrease the anxiety and stress, to encourage themselves to improve their listening skills, and to make a high self-confidence while listening to tasks. O'Malley and Chamot (1990) suggested positive self-talk and self-reinforcement as two factors, which are frequently reported as the affective strategies used by the learners.

There is a difference between less skilled and high skilled listeners in the listening strategy use (Chamot, 2005; Vandergrift, 2003). Numerous studies (e.g., Bruen, 2001; Chamot & El-Dinary, 1999; Chien & Wei, 1998; Goh, 2002; Green & Oxford, 1995; O'Malley & Chamot, 1990; Smidt & Hegelheimer, 2004; Vandergrift, 1997, 2003; Wharton, 2000) have found that high proficient listeners use a wide variety of strategies with more flexibility based on the given tasks. Reporting useful findings about the differences between high proficient and low proficient listeners, some researchers (e.g., Goh, 2000, 2002; Hasan, 2000; O'Malley & Chamot, 1990; Vandergrift, 2003, 2004) have found that successful listening comprehension requires the effective use of metacognitive strategies. High proficient listeners use social strategies more than less proficient listeners, as they use better and wider explanation questions as strategies (Rost & Ross 1991). To improve direct interaction and to control their negative feelings, proficient listeners also employ socio-affective strategies frequently while listening to lectures (Goh, 2005).

High skilled listeners use background knowledge, while low skilled ones apply linguistic knowledge to interpret the listening texts (Shang, 2008). Osada (2001) argued that the lower proficiency listeners like to follow a mental translation approach while listening, so they cannot

comprehend the whole message when they translate word by word. Meccarty (2000) stated that the low skilled listeners have a limited grammatical and vocabulary knowledge; therefore, their word recognition ability cannot automatically be improved. Goh (2005) argued that the low skilled listeners do not employ a lot of strategies, particularly they are not able to use the elaboration and evaluation strategies at the beginning of their interpretation. Goh (1998) found that the less skilled listeners use more cognitive strategies. Goh (2005) further noted that "this happens not because they are unaware of listening strategies, but that they have not received enough input to allow them to process the information at a higher level" (p. 74).

2.4. Listening Problems in Lecture Listening Comprehension

While listening to lectures, college students encounter numerous problems, which can be divided into the internal and external factors (Lynch, 2011). Internal factors are related to the listeners' problems such as momentary distractions and negative feedback to the lecturers, whereas the external factors are related to the lecturers' accent, rate of speech, unknown words, and so on (Lynch, 2011). Insufficient knowledge about the pattern, the global structure, the temporary nature of the lectures, and the delivery of the information are some of the reasons why the listeners cannot comprehend the lecture effectively (Duszak, 1997; Flowerdew, 1994; Lynch, 2011; Nesi, 2001). Flowerdew and Miller (1992) found that EFL students encountered major problems while they were listening to the academic lecture in English. The problems were accent, the speed of delivery, new vocabulary and concepts, and the difficulty in concentration. Hamouda (2013) stated that the problems which EFL Saudi students expressed were different accents of lecturers, pronunciation, the speed of delivery, insufficient vocabulary, lack of concentration, anxiety, and the insufficient quality of the recording.

In addition, other major problems were the lack of knowledge (Goh, 2005; Underwood, 1989), taking notes (Gruba, 2004), and the lecturers' accent (Flowerdew, 1994). Littlemore (2001) stated that the listeners are not able to comprehend the metaphorical language used by the lecturers, and as noted by Arnold (2000), students face difficulties in managing their stress when they are asked to actively participate and to answer questions while listening to lectures.

2.5. Empirical Review of the Related Literature

Goh (1998) explored the cognitive and metacognitive strategies used by EFL learners and compared the different strategies used by low and high level listeners. Eighty students participated in the study. An interview, a pretest, and a post-test of Secondary Level English Proficiency (SLEP) were the instruments of the study. The result revealed that the high level listeners used cognitive and metacognitive strategies more than low level listeners.

Hasan (2000) investigated the EFL learners' views about listening comprehension problems and strategies. The participants were 81 college students in the ESP Center at Damascus University. A questionnaire and several listening tasks were used in this study. The findings revealed that EFL listeners were unable to use effective listening strategies including applying pre-listening information and background knowledge of the topic to help them comprehend the lectures. In addition, unfamiliar words, difficult grammatical structures, and the length of the spoken text were found to be the learners' problems in listening comprehension.

Working on the academic listening comprehension strategies, Chen (2005) explored the challenges and obstacles faced by EFL learners when they were learning listening comprehension strategies during a listening course. Sixty-four EFL learners participated in this study. The instruments of the study were working journals and an interview. The results revealed seven significant types of learning problems including affective obstacles, habitual barriers, learning difficulties connected to the English proficiency, learners' information procedures, their opinions about listening, their problems in the processes of the strategy use, and the listening materials that learners studied with.

Hamouda (2013) explored the listening problems of a group of first year English major students (N=60) at the Qassim University. The instruments were a questionnaire and an interview. The questionnaire was used to explore the learners' difficulties in lecture listening, while the interview explored how the listening difficulties influenced students' listening comprehension and the reasons of the learners' difficulties. The results of the study showed that learners encountered problems with pronunciation, speed of speech, insufficient vocabulary, different accents of speakers, lack of concentration, anxiety, and the bad quality of recording. The results also revealed that the higher proficiency group used metacognitive and socio-affective strategies more frequently than the lower proficiency group.

3. Method

3.1. Participants

The participants of this study were 94 Iranian undergraduate students of Engineering at the IUST. They were 36 female and 58 male learners, who ranged in age from 18 to 22. The participants' majors were Metallurgy and Material Engineering (*n*=12), Mechanical Engineering (*n* =11), Architecture (*n*=8), Civil Engineering (*n*=6), Chemical Engineering (*n*=10), Computer Engineering (*n*=3), Industrial Engineering (*n*=6), Physics (*n*=2), Railway Engineering (*n*=21), Mathematics (*n*=6), and Electrical Engineering (*n*=9).

3.2. Instruments

A number of instruments were used in this research: four lecture listening tasks and a questionnaire on the lecture listening strategies followed by five open-ended items about the learners' problems in listening to lectures, their reasons for their problems, and their solutions to the problems.

In order to gather the required data, four lecture listening tasks at the four levels of CEFR (i.e, A2, B1, B2, & C1) were used to estimate the participants' level in lecture comprehension. The title of the first task was 'In a Seminar', which was chosen from *Real Listening & Speaking 1* (Craven, 2008). The title of the second task was 'Managing Money', which was chosen from *Real Listening & speaking 2* (Craven, 2008). The title of the third task was 'Starting Your Seminar', which was chosen from *Real Listening & Speaking 3* (Craven, 2008), and the title of the last task was 'Do's and Don'ts', which was chosen from *Real Listening & Speaking 4* (Craven, 2008).

Another instrument was a revised version of Abdalhamid's (2012) listening strategies questionnaire developed based on Vandergrift's (1997) listening strategies classification (i.e., cognitive, socio-affective, & metacognitive). The questionnaire with 20 items was a five-point Likert scale (i.e., 1 = strongly disagree, 2 = disagree, 3= somewhat agree, 4 = agree, & 5 = strongly agree) and aimed to investigate undergraduate students' use of lecture listening strategies.

The questionnaire was followed by five open-ended items exploring learners' perceptions about lecture listening experience. The first question, 'Do you enjoy listening to the lectures? If yes, why? If no, why not?' was about their attitudes towards listening to lectures. The second question,

‘What strategies do you use to help your understanding while listening to academic lectures?’ explored lecture listening comprehension strategies used by the undergraduate learners, and the other questions explored their problems, reasons, and solutions for the problems during listening to lecture. The questions were ‘What are the main problems you have in listening to lectures? What are the reasons for your problems in listening to lecture? And how do you solve these listening problems?

3.3. Procedure

This study was conducted in the winter, 2017, and the data were collected over a period of three weeks. The participants were presented with enough information about the aim of the study in order to encourage them to closely answer the instruments of this research.

Four tasks at the A2, B1, B2, and C1 levels of the CEFR were initially chosen from the *Real Listening & Speaking* (2008) series. In other words, from the six levels of the CEFR (i.e., A1, A2, B1, B2, C1, & C2), A1 and C2 levels were excluded because *Real Listening & Speaking* series did not introduce any tasks for these levels. The learners were requested to listen carefully and perform the tasks in 15 minutes. The validation procedure for the tasks used in this study was based on the expert validation used by the authors of the *Real Listening* textbooks for their developed tasks.

Listening strategies questionnaire was then translated into Persian, and the learners were asked to complete it in 10 minutes. In order to determine the reliability of the items of the lecture listening strategies questionnaire, Cronbach’s alpha was used. The reliability of the questionnaire was found to be r = 0.58, indicating a moderate reliability among the items of the questionnaire. Five questions about the students’ attitudes, problems in lecture tasks, their solutions, and their reasons for the problems were developed by the researchers. The learners were asked to write their responses to these items in about 15 minutes.

3.4. Research Design

This study implemented an exploratory research methodology to map undergraduate students’ level on lecture comprehension tasks, their use of lecture listening strategies, and their attitudes and problems about lecture listening tasks. Nonprobability convenient or availability sampling was chosen in this study. In other words, the researchers did not choose the participants randomly and

had to administer the questionnaire and the tasks to some undergraduate students of Engineering attended the four academic listening classes. This study entailed a descriptive and correlational research design in which the lecture comprehension levels were the dependent variables, while categories of listening strategies and gender were the predictor variables.

3.5. Data Analysis

Descriptive statistics and chi-square analysis were run to determine the undergraduate students' levels on lecture listening comprehension tasks. In addition, descriptive statistics and Pearson Product Moment Correlation (PPMC) were performed to explore the strategies, which high and low proficient listeners used while listening to lectures. To investigate the relationship between lecture listening level and lecture listening strategies, a nominal logistic regression was also conducted. Theme based analysis was also done to determine the most frequent responses to open-ended items about attitudes, problems, and strategy use in lecture listening tasks.

4. Results

4.1. Learners' Lecture Listening Level

Descriptive statistics were conducted to determine the number of male and female learners at each level of the CEFR regarding lecture listening comprehension.

Table 1: Undergraduate Students' Lecture Listening Level (N=94)

Levels	*Male*		*Female*		*Chi-Square*		*p*	
	f	*%*	*f*	*%*	*M*	*F*	*M*	*F*
Below A2	13	22.4	14	38.9	8.379	13.722	.079	.008
A2	16	27.6	10	27.8				
B1	16	27.6	6	16.7				
B2	5	8.6	5	13.9				
C1	8	13.8	1	2.8				
Total	58	100.0	36	100.0				

As Table 1 indicates, more male learners (13.8%) were placed at the C1 level compared to female ones (2.8%); however, with regard to the lowest level (i.e., below A2), more female learners (38.9%) were placed at this level compared to male ones (22.4%). Considering all learners' lecture levels, as shown in Table 1, there were only nine students who could reach the C1 level, and the most frequent lecture listening levels were related to below A2 and A2, whereas the least frequent

ones were concerned with the Cl and the B2 levels. The female learners' levels could be hierarchically ranked as *below A2, A2, B1, B2,* and *C1*, while the male learners' levels could be hierarchically ranked as *A2, B1, below A2, C1, and B2.* The result of chi-square analysis also showed a statistically significant difference in the female engineering students' lecture listening levels (p=.008).

4.2. Undergraduate Students' Use of Lecture Listening Strategies

Another instrument in this study was a questionnaire exploring the undergraduate students' use of lecture listening comprehension strategies. It is important to note that in this section the combined results for the 'strongly disagree' and 'disagree' options and the 'strongly agree' and 'agree' options are reported.

Ranking the participants' responses, the highest agreements were related to item 5, 'I use the main idea of the text to help me guess the meaning of the words that I don't know' (80.9%); item 13, 'I try not to feel nervous as I listen to English' (77.7%); item 12, 'while listening, I try to relax' (75.5%); item 4, 'I use the words I understand to help me guess the meaning of the words I don't understand' (74.5%); item 6, 'I use my knowledge and personal experience to help me understand the topic' (71.2%); item 2, 'I try to picture the setting of the conversation to understand what the speakers are talking about' (67.1%); item14, 'as I listen, I have a goal in my head (67.1%); item 7, 'as I listen, I complete what I understand with what I already know about the topic' (55.4%); item 11, 'as I listen, I occasionally ask myself if I am satisfied with my level of comprehension' (55.3%); item 19, 'I focus harder on the text when I have trouble understanding' (54.3%); and item 20, 'I feel that listening in English is a challenge for me' (51.1%). However, the highest disagreements were obtained by item 1, 'I focus on the meaning of every word to understand the whole text' (57.5%) and item 3 'before listening I think of similar texts that may have listened to' (51.1%). Table 2 presents the correlation and descriptive statistics of the categories of lecture listening strategies.

Table 2: Correlation Analysis & Descriptive Statistics of Categories of Lecture Listening Strategies (N = 94)

Strategies	1	2	3	*M*	*SD*
1. Cognitive	---	.235**	.272**	3.47	.43
2. Metacognitive		---	.227**	3.16	.45
3. Socio-affective			---	3.44	.61

**. $p < .05$ (2-tailed)

As Table 2 shows, the cognitive strategies category appeared more frequently than others and received the highest mean score ($M = 3.47$), while the metacognitive strategies received the lowest mean score ($M = 3.16$). Table 2 also shows that the learners' responses to the cognitive strategies category were the most homogeneous ($SD = 0.43$), whereas responses to the socio-affective strategies were the most heterogeneous ($SD = 0.61$). To investigate the relationship between categories of listening strategies, Pearson Product Moment Correlation was conducted. As indicated in Table 2, the correlation between cognitive and metacognitive strategies was 0.235, indicating a low positive correlation. There was also a significant low positive correlation between cognitive and socio-affective strategies (r=0.272) and metacognitive and socio-affective strategies (r=0.227).

The learners were asked to describe the strategies they used in listening to lecture tasks. They reported more cognitive strategies compared to metacognitive and socio-affective strategies. The strategies they used could be hierarchically ranked as cognitive, metacognitive, and the socio-affective strategies. Detailed description of their responses to the item about strategy use is presented below.

A) Cognitive Strategies

Participants reported to use more cognitive strategies ($f = 57$) while listening to lecture. The strategies were linguistic inference strategy ($f = 14$); inference strategy ($f = 14$); translation strategy ($f = 13$); personal elaboration strategy ($f = 9$); imagery strategy ($f = 4$); and academic elaboration strategy ($f = 3$), respectively. Some of the learners' responses are presented below.

> a: "… I try to get the main idea by the familiar words and my background knowledge. I try to make picture of lectures…"
>
> b: "…I translate word by word, try to find the main idea, and guess the meaning of unknown words based on the main idea…"

B) Metacognitive Strategies

Metacognitive strategies were used by 53 undergraduate students of Engineering. The strategies they reported were advance organization (f=32); self-management (f =18); evaluation strategy (f=2); and comprehension monitoring (f=1), respectively. With regard to metacognitive strategies, some responses of the undergraduate students about their use of these strategies are presented below.

> a: "… I don't use special strategies; I just listen to lectures a lot till my ears become familiar with the lectures and imitate the structure and pronunciation..."
>
> b: "…knowing the main idea or the words before the lecture starts can really help me understand the most parts of the lecture…"
>
> c: "…I try to concentrate from the beginning of the lecture in order not to lose it, to consider the topic before listening to the lecture, and to guess the meaning of the words that I don't know…"

C) Socio-Affective Strategies

With regard to socio-affective strategies, only five participants reported to use the following strategies while listening to the academic lectures: lowering anxiety (f = 4) and taking emotional temperature (f = 1). Some examples of their responses are presented below.

> a: "…I try to study about the topic before listening to lectures. I ask my classmates who are proficient in English…"
>
> b: "… I try to translate the words in my mind to understand the lecture, and if I couldn't understand the lecturer, I would try not to be panic and keep myself calm down.

4.3. Relationship between Learners' Strategy Use and their Lecture Listening Levels

Descriptive statistics were conducted to determine the learners' listening strategy use at different levels. The results are presented in Table 3 and Figure 1.

Table 3: Comparing Learners' Strategy Use and their Lecture Listening Level

Categories	Below A2		A2		B1		B2		C1	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Cognitive	3.48	.42	3.48	.54	3.48	.35	3.47	.51	3.42	.24
Metacognitive	3.02	.45	3.19	.44	3.22	.45	3.20	.46	3.29	.46
Socio-affective	3.23	.65	3.27	.54	3.72	.61	3.75	.39	3.50	.55

As Table 3 indicates, learners at higher levels (i.e., B1, B2, & C1) used more socio-affective strategies as they received the highest scores for these strategies, while learners at the lower levels (below A2 & A2) reported to use more cognitive strategies compared to other strategies. Table 3 also shows that learners at all levels reported the least use of metacognitive strategies in their lecture listening comprehension tasks.

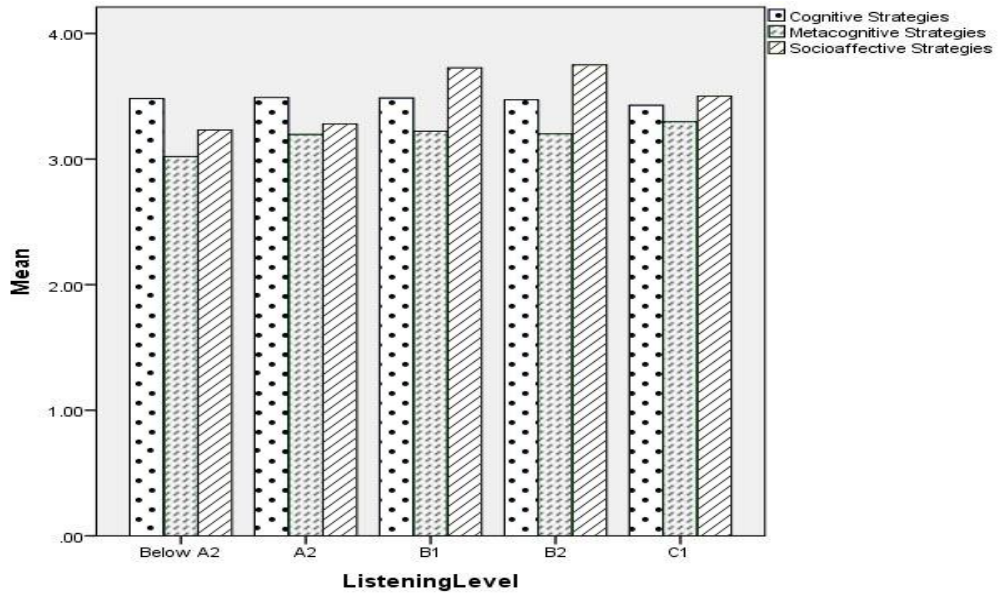

Figure 1. Listening Strategy Use by Undergraduate Students of Engineering at Different Levels.

Ordinal logistic regression was performed to investigate whether the relationship between the levels and the learners' strategy use was statistically significant. In this statistical technique, lecture listening level was the dependent variable, while the categories of lecture listening strategies and the gender were the predictor variables. The difference between the two log-likelihoods—the chi square—had an observed significance level of less than .05. This means that we could reject the null hypothesis that the model without predictors was as good as the model with predictors. To measure the strength of association between the variables of the study, Cox and Snell, Nagelkerke, and McFadden were also calculated. The results showed that the values of these pseudo *R*-square statistics were .263, .277, .101, respectively. Table 4 shows the relationship between learners' levels and their strategy use.

Table 4: Parameter Estimates

Listening Level[a]		B	Wald	*p*	95% Confidence Interval for Exp(B)	
					Lower Bound	Upper Bound
A2	Cognitive	-.239	.125	.723	.209	2.962
	Metacognitive	1.081	2.397	.122	.750	11.588
	Socio-affective	.089	.032	.857	.415	2.881
	[Gender=F]	-.670	1.328	.249	.164	1.599
	[Gender=M]	0[b]				
B1	Cognitive	-1.038	1.657	.198	.073	1.720
	Metacognitive	1.212	2.474	.116	.742	15.214
	Socio-affective	1.938	8.355	.004	1.866	25.851
	[Gender=F]	-1.481	4.674	.031	.059	.871
	[Gender=M]	0[b]				
C1	Cognitive	-1.024	1.011	.315	.049	2.643
	Metacognitive	.967	1.025	.311	.404	17.100
	Socio-affective	1.978	5.154	.023	1.311	39.901
	[Gender=F]	-.476	.354	.552	.129	2.980
	[Gender=M]	0[b]				
C2	Cognitive	-1.244	1.476	.224	.039	2.145
	Metacognitive	1.821	3.415	.065	.895	42.661
	Socio-affective	1.109	2.001	.157	.652	14.087
	[Gender=F]	-2.539	4.734	.030	.008	.777
	[Gender=M]	0[b]				

a. The reference category is: Below A2.
b. This parameter is set to zero because it is redundant.

As shown in Table 4, given all kinds of strategies, only learners' use of socio-affective strategies was found to be statistically significant. Table 4 also shows that the use of socio-affective strategies by female learners at the B1 (p=.03) and C1 (p=.03) levels was found to be statistically significant.

4.4. Undergraduate Students' Attitudes towards Listening to Lectures

The learners were also asked to express their attitudes towards listening to lectures. They were also required to note the reasons for their feelings about lecture listening comprehension. The results showed that 42 participants responded 'Yes', 3o participants had neutral views, and 22 participants responded 'No' to the question. Given the learners' responses, most undergraduate students enjoyed listening to lectures. Improving their language skills (f = 16), studying scientific texts in English (f = 6), improving competence in listening skill (f = 6), connection between lecture tasks and their courses (f = 3), and their ability to communicate in another language (f = 2) were the reasons suggested by those who enjoyed listening to lecture tasks. Uninteresting topics (f = 6), lecturer's accent (f = 6), lack of time (f = 4), the speed of speaking (f = 4), lack of concentration (f = 4), and the lack of ability to comprehend (f = 3) were the reasons reported by those who were not interested in listening to lectures. Some reasons given by the learners are presented below:

> a: "…Yes, because most of the scientific information is presented in English language, then listening to lectures can upgrade my knowledge…"
>
> b: "… Yes, because I feel happy when I can understand another language and can communicate with the people around the world…"
>
> c: "…No, I don't enjoy listening to the lectures because of a couple of reasons: first, the topics are not interesting to me; then, I don't enjoy the lecturers' accent and finally, the British accent is more difficult than American one for me to comprehend…"
>
> d: "…No, I don't have enough time to listen to lectures, and they make me tired and reticent…"
>
> e: "… No, I don't like lectures because the lecturers speak very fast with a heavy accent, therefore I can't get the main point…"
>
> f: "… No, because I don't understand the main idea and lose my concentration in the middle of lectures. Also, some topics are not interesting and cannot motivate me to listen to lectures…"

g: "…No, I can't comprehend the lectures. I should translate the lecture word by word; thus, I lose the whole and can't get the main idea…"

4.5. Undergraduate Students' Problems in Listening to Lectures

Students reported that they faced some problems while listening to academic lecture. The problems were ranked as follows: (a) new or insufficient vocabulary (f = 66), (b) the speed of delivery (f = 41), (c) accent (f = 37), (d) difficulty in concentration (f = 28), (e) insufficient prior knowledge (f = 5), and (f) the bad sound quality (f = 4). Some of their responses are presented below.

a: "… some words I have never heard before, so I focus on them and miss the most parts of the lecture. Speaking frankly, I don't like listening to lecture at all…"

b: "… because of the speed of the lecturer, when I want to take notes, I miss some parts of the lecture. I can't do both taking notes and listening. I cannot concentrate on the rest of it when I don't understand some parts..."

c: "… Sometimes, I know the word, but when its accent is strange for me, it doesn't sound I know it, then I don't understand what the lecturer is talking about and lose my concentration…"

d: "…listening to lecture is quit boring, and I cannot fully focus on it for a long time…"

e: "…When I don't have any knowledge about the topic of the lecture, I can't understand it at all…"

f: "… I cannot focus. Low volume is a kind of problem to understand lectures.

4.6. Learners' Reasons for the Problems in Listening to Lecture

Students stated some reasons for their problems while listening to lectures. Their suggested reasons could be hierarchically ranked as: (a) insufficient vocabulary (f = 43), (b) insufficient practice (f = 39), (c) unfamiliarity with strong accents (f = 18), (d) difficulty in concentration (f = 16), (e) inability to adapt to the speed of the lecturers (f = 15), (f) being unfamiliar with the listening

strategies (f = 14), (g) having low proficiency in English (f = 9), (h) lack of prior knowledge about the topic of the lectures (f = 4), and (i) inappropriate teaching methods in listening classes (f = 3).

a: "… if I have no opinion about the vocabulary and concepts, I feel it can influence my listening comprehension…"

b: "… I don't have enough experience to listen to academic lecture; I don't have enough practice…"

c: "… I had a difficult time in comprehending other accents, which were not American one…"

d: "… difficulty in concentration is my biggest problem…"

e: "… the speed of the lecturer is too fast, and I translate the sentences in my mind, then I can't follow the lecturer…"

f: "… I can't concentrate during the lectures and lose many details, as I translate the sentences in my mind and think a lot about the sentences or the words which I don't understand, leading to my inability to follow the lecturer.

g: "… I don't like the topic of the lecture, and I'm not good at English because I stopped learning it for a long time…"

h: "… my knowledge is not enough to comprehend some topics…"

i: "…the educational system doesn't pay attention to listening skill…"

4.7. Learners' Suggestions for Solving their Problems in Listening to Lectures

The researchers asked students to give some solutions for their problems in lecture listening comprehension. The solutions expressed could be hierarchically ranked as: (a) practicing listening skill (f = 61), (b) expanding the vocabulary knowledge (f = 35), (c) watching films and listening to English music (f = 23), (d) concentration during listening (f = 12), (e) taking notes (f = 5), and (f) improving prior knowledge (f = 4). Some of their solutions are presented below.

a: "… I should listen to lectures every day and then find the lecture's audio script and again listen to match them…"

b: "… try to find the meaning of the vocabulary items and phrases and learn them step by step…"

c: "…memorize more vocabularies and check their different accents…"

d: "…I should listen to English music, watch English movie or TV program…"

e: "…I should try to concentrate on the lecture to find the main topic…"

f: "… I should try to learn how to take notes…"

g: "…before the lecture, I should increase my knowledge about the topic and take notes of the important issues…"

5. Discussion

The result of the study showed that the level of half of the learners in listening comprehension was quite low because most of the English classes in the Iranian context are reading based, and listening is ignored. This result was in contrast with that of Song (2016), in which most participants were found to be at high proficiency level. It is worth noting that the participants of Song's research were MA students, and the test administered was a TOEFL exam. However, the result of the current study is similar to that of Rahimirad and Moini (2015), as in their research MA Engineering staff at the Qom university were placed at the lower intermediate to intermediate levels.

In addition, it was found that the cognitive strategies appeared more frequently than the other strategies, and the metacognitive strategies received the lowest mean score. Most learners used cognitive strategies because they were at low level and were not expert in applying other strategies. This can be due to (a) their language proficiency, (b) the lack of sympathy and interaction between the learners and instructors leading to the lack of socio-affective strategy use, or (c) the lack of instruction on lecture listening. The learners' tendency to use more cognitive strategies may be related to the reason suggested by Hamouda (2013), Song (2016), and Shang (2008). They argued

that higher proficiency learners prefer to combine cognitive, metacognitive, and socio-affective strategies, while lower proficiency learners tend to apply cognitive strategies.

The finding of this study is similar to that of Hasan (2000) as in his research EFL listeners were unable to use socio-affective strategies to help them improve their listening skill. The findings of this study are different from those of Goh (1998, 2002) in which high proficiency listeners applied cognitive and metacognitive strategies more than the lower level listeners did. In contrast with this study, Khaldi's (2013) results showed that first-year students did not use any strategies while listening, and their performance was found to be poor. Numerous studies (e.g., Chien & Wei, 1998; Goh, 2002; Smidt & Hegelheimer, 2004; Vandergrift, 1997; 2003) have examined the strategy use by more proficient and less proficient listeners, and their findings indicated that more proficient listeners used a wider variety of strategies with greater flexibility, frequency, and properness to meet task requests, and use superior forms of strategies compared to less proficient listeners. With regard to the use of lecture listening strategies, the findings of this study are in line with those of Serri, Jafarpour, and Hesabi (2012) as in their research the participants applied cognitive strategies more than other strategies; however, none of their participants used socio-affective strategies.

It was also found that most undergraduate students of Engineering enjoyed listening to lectures and had positive attitudes towards lecture tasks because most students at the IUST are studious and highly motivated. In addition, they considered that listening to lectures could improve their language proficiency and listening skills; therefore, they were interested in listening to lectures.

The problems mentioned most frequent by learners were new or insufficient vocabulary items because they most were at a low level of listening proficiency and did not have enough vocabulary knowledge. Another frequently mentioned problem was the speed of delivery, which can be due to the fact that learners rarely listened to lectures in schools and could not follow the speech of the lecturers with various accents.

With regard to listening problems, the results of this study are in line with those of Flowerdew and Miller (1992), Hamouda (2013), and Gilakjani and Ahmadi (2011). As Flowerdew and Miller reported, learners' problems were with new terminology and concepts, difficulties in concentration, and the speed of delivery. In addition, Mulligan and Kirkpatrick's (2000) findings were similar to those of this study as in their study most students were faced with the challenges

of comprehending lecture listening and note taking in lectures. Hamouda's (2013) finding confirms the findings of this study as listening problems of a group of first-year English major students were found to be pronunciation, speed of speech, insufficient vocabulary, different accents of speakers, lack of concentration, anxiety, and the insufficient quality of recording.

6. Conclusions

This study aimed to estimate EFL learners' lecture listening level through CEFR-based academic lecture tasks, to explore the strategies they used in listening to lectures, and to find their problems while listening to lecture tasks. The analysis of the results showed that most learners were placed at the low level of listening proficiency. The findings also revealed that undergraduate students could not use all strategies effectively and used cognitive strategies more than the socio-affective and metacognitive strategies. The most frequent problems reported were new or insufficient vocabulary and the speed of delivery.

To help learners promote their academic listening, materials developers and instructors are recommended to provide the appropriate tasks for teaching and testing based on the learners' listening level. A further recommendation is to use authentic lecture listening tasks, films, clips, music tracks, pictures, and PowerPoints with interesting content that arouse learners' interest and motivate them to use various types of listening strategies. Strategy instruction can also play an important role in improving students' behavior, so listening instructors need to help students to improve their awareness of listening strategies and teach them how to effectively use the cognitive, metacognitive, and socio-affective strategies properly in the listening classes.

To solve learners' problems in listening, schools can offer more listening to prepare prospective university students with listening experience and skills. Practice lectures with different accents can also be recorded and placed on line by the universities for students to access in their free time. Students can also be asked to present content-based peer lectures and more informal presentations on areas of personal interest, as listening is not always about the formal content. Listening instructors can also encourage learner participation and ask them to give feedback and talk about their needs and concerns in the academic listening classes. Instructors can also use some scaffolding strategies including waiting for the students to answer questions, giving them time to

read questions, repeating whole or parts of the task for them, and providing a comfortable atmosphere for students to listen.

Based on the findings of the current research, future researchers can compare undergraduate students' lecture listening comprehension level with their academic language knowledge. The participants in this study were the undergraduate students of Engineering. Further studies can be conducted with students of other disciplines (e.g., human sciences, medicine, law, & language, etc.). Another study can be conducted exploring learners' levels, problems, and strategy use in other academic listening tasks such as discussion, interview, and note taking. The relationship between lecture listening comprehension level and psychological factors such as motivation, anxiety, and self-direction can also be explored. Another research can be conducted offering instruction on the structure of lecture or lecture listening strategies and then the impact of this instruction on learners' lecture comprehension can be investigated. Further research can be done by interviewing the instructors to find out what scaffolding strategies they can use in the academic listening classes and ask their opinions about approaches for improving the quality of academic listening courses and enhancing learners' academic listening skills.

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A Spoonful of Humour Helps the Medicine Go Down: Enlivening Academic English Vocabulary Learning in a Medical English Course

Paul Mathieson & Francesco Bolstad

Nara Medical University

Biodata

Paul Mathieson is an Associate Professor of Clinical English at Nara Medical University in Japan. He holds an M.A. in Applied Linguistics and TESOL for the University of Leicester, and he has taught English at a variety of levels in Japan for the past 13 years. Paul's research interests include vocabulary acquisition, learner motivation, English for specific purposes, and content and language integrated learning.

Email: mathieson@naramed-u.ac.jp

Professor Francesco Bolstad holds degrees in a wide range of fields spanning both liberal arts and STEM subjects and has taught both content and language in classrooms of one kind or another for over 23 years. His present role allows him to combine his background in biology and economics with his love of education and language. In addition to coordinating the Nara Medical University Department of Clinical English, he is involved in pedagogic and research projects which allow him to further his interests in teacher efficacy, content, and language integrated learning, collaborative approaches to teaching and learning, and vocabulary acquisition.

Email: bolstad@naramed-u.ac.jp

Abstract

As ESP- and CLIL-oriented English language courses continue to flourish in universities throughout Japan, so too does the expectation that students can understand and use academic and field-specific or genre-specific vocabulary. This is particularly so for Japanese medical students,

who have the added burden of learning copious amounts of new medical terminology in their first language as well. This study sought to explore how first-year students in a medical English course at a public medical university learned academic vocabulary items which were drawn from Coxhead's (2000) academic word list. In particular, this study aimed to determine whether using humorous sentence lists (as compared with non-humorous sentence lists) helped students to perform better on weekly and final academic vocabulary tests. Although the control group (who were given non-humorous sentence lists) performed statistically significantly better than the test group (who were given non-humorous sentence lists and humorous sentence lists) in the initial weekly test, this situation was reversed by the midway point of the course. In the final review test, the test group performed slightly better than the control group, though not to a level of statistical significance. These results, combined with positive feedback from student questionnaires, suggest that the continued use of the humorous sentence lists is justified. Student feedback also highlighted the lexical complexity of the non-humorous sentence lists (which were included in a recommended textbook for the course) as one reason why these sentence lists were not widely used by our students. However, students' continued reliance on conventional vocabulary learning methods – despite explicit instruction in a variety of different vocabulary learning methods – warrants further investigation.

Keywords: academic vocabulary, vocabulary learning strategies, motivation, humour

So many words to master, so little time to make the mastery happen. This is a common conundrum for Japanese students facing the vocabulary learning challenges of university-level English courses, and this is particularly so for those who take English for specific purposes (ESP) or content and language integrated learning (CLIL) courses. For students studying medicine, those challenges are arguably even greater than those faced by students pursuing other academic disciplines. Coming from what was perhaps a gentle, bubbling stream of English vocabulary learning demands in junior and senior high school, they are faced with an endlessly raging torrent of academic, scientific, and medical vocabulary learning requirements throughout their time at medical school (Quero, 2017). Moreover, with all of the other course and extra-curricular pressures pulling them this way and that, some of the medical students at our institution struggle with this aspect of their English language learning more than any other.

The genesis for the study outlined in this paper lay amid these tensions. It also draws on the role of second language teachers in helping learners to overcome vocabulary learning obstacles by making them explicitly aware of different strategies for learning vocabulary (Gu, 2003; Gu & Johnson, 1996; Nation, 2008; Webb & Nation, 2017). Part of that process – particularly in ESP and CLIL courses – involves helping students to see the value in learning field-specific or genre-specific vocabulary (Fraser, 2005; Wanpen et al., 2013) and also providing a stimulating teaching and learning environment in order to nurture students' motivation to learn vocabulary (Beck et al., 2013). It is also worth noting that this study was also born out of both writers' own experiences as second language learners (learning Japanese). In particular, it reflects our perception that certain Japanese words or phrases were more readily grasped than others due to some humorous or emotional incident or association that accompanied the learning of that word or phrase.

As part of their first-year medical English course, the students who participated in this study were required to take weekly academic English vocabulary tests throughout the first semester. Each weekly test consisted of 10 vocabulary items, and for each vocabulary item, students were required to write a sentence in English which was both grammatically correct and which demonstrated that they understood the meaning of the word being tested. The vocabulary items for the course were drawn from Coxhead's academic word list (AWL), which contains 570-word families – divided into ten sublists based on word frequency – that frequently appear in written academic discourse (Coxhead, 2000).

Prior to this study, it seems that most students prepared for these vocabulary tests by using sample sentence lists compiled by their seniors and/or students' own individual sample sentence lists. Also, one of the recommended texts for the course (*Academic Word List in Use*, 2015) includes sample sentences for each AWL item which were drawn from authentic texts (newspaper articles, journal articles, and so on). Taking all of these available resources into account, we prepared a list of humorous sentences for each AWL item in an attempt to provide more motivation and enjoyment for our students.

With the foregoing in mind, this study aimed to address the following research questions: (1) Does the use of humorous sentence lists lead to higher AWL test scores? (RQ1) (2) What methods do our students use to learn AWL vocabulary items? (RQ2) (3) How do our students view the utility of (a) the humorous sentence lists which were created by the writers; and (b) the non-humorous

sentence lists which were included in the recommended text for the course as vocabulary learning tools (RQ3)?

Literature Overview

There are a great many factors which are seen as important for second language acquisition that teachers cannot control – the age at which learners start learning a language, language aptitude, the language environment outside the classroom (ESL, EFL), and so on. However, two factors which language teachers do have some influence over are (1) increasing learners' metacognitive awareness of their own learning by teaching language learning strategies; and (2) nurturing and facilitating our learners' motivation to learn the language. Both factors are relevant to this study, and we now look at each of them insofar as they impact on vocabulary acquisition in an EFL environment. In relation to the latter factor (motivation), we will also examine some of the literature which has looked at the role of humour in EFL learning contexts.

Teaching Vocabulary Learning Strategies

In most EFL settings, the class time that is spent focusing on vocabulary learning is insufficient for students to learn the roughly 3,000 word families required for understanding most spoken English and the 9,000 or so word families that are needed to comprehend most written English texts (Webb & Nation, 2017). In addition, Japan is considered an input-impoverished EFL environment, where, for many students, exposure to English outside the classroom is fairly limited (Mizumoto & Takeuchi, 2008; Mizumoto & Takeuchi, 2009). Given these stark realities, there is clearly a need for EFL teachers in Japan to help students to become more efficient and more autonomous vocabulary learners by explicitly teaching vocabulary learning strategies (Schmitt, 1997, Xu & Hsu, 2017).

There has been a great deal of research which has looked specifically at teaching vocabulary learning strategies (see Xu & Hsu, 2017 for a useful overview). With the plethora of vocabulary learning strategies that may be available, finding the most effective and efficient strategy or strategies depends on vocabulary requirements, the learner, and the learning context (Gu, 2003; Nation, 2013). One approach that is familiar to many Japanese EFL students is what are referred to as discovery strategies (Schmitt, 1997) for learning new words, such as guessing a word's meaning from context (Hulstijn et al, 1996; Wei, 2007), or referring to a Japanese-English and/or

an English-English dictionary to clarify the meaning of an unknown word (Gu & Johnson, 1996; Knight, 1994; Laufer & Hadar, 1997).

At a deeper level, strategies that seek to reinforce knowledge and recall of a new vocabulary item (consolidation strategies, Schmitt, 1997) have also been shown to be effective. These include using flashcards (de Groot, 2006; Webb & Nation, 2017) and also memory devices such as mnemonics (Mizumoto & Takeuchi, 2009; Thornbury, 2002) to link word form and word meaning. Webb and Nation (2017) also highlight that a key feature of fostering autonomous vocabulary learning is encouraging students to explore ways of engaging with words outside of the classroom. This can include through extensive reading (Day & Bamford, 2002; Pigada & Schmitt, 2006) or extensive viewing using resources such as YouTube, Netflix, or Ted Talks (Webb & Nation 2017).

Given the perceived importance of teaching vocabulary learning strategies in Japan (Mizumoto & Takeuchi, 2008; Takeuchi, 2003), teachers in the course that is under consideration here explicitly taught vocabulary learning strategies during the course. However, while the aforementioned vocabulary learning strategies have been widely examined (and been shown to be effective) in various contexts, the use of sentence lists – and in particular, humorous sentence lists – has not been covered in the literature. Accordingly, in addition to looking at what methods our learners use to learn AWL vocabulary items, this study has attempted to evaluate the effectiveness and the usefulness (from our learners' point of view) of using sentence lists to learn academic vocabulary.

Motivation, Humour, and Vocabulary Learning

Learners' motivation to learn vocabulary in an EFL setting can vary widely, depending upon their language ability, their learning context, their future aspirations, among many other considerations. Because of this motivational variance, it is important for teachers to inculcate in their students an appreciation for the benefits that can result from learning English vocabulary. As Webb and Nation (2017, p. 133) highlight, "If students understand the value in what they are doing to learn vocabulary, they are likely to be more engaged." A corollary to this is that, in addition to helping students to see the value in their vocabulary learning, teachers – and especially EFL teachers – should attempt to arouse their students' curiosity about words in a way which is (hopefully) stimulating and even playful (Beck et al, 2013; Thornbury, 2002).

Humour can be an effective means of increasing learner engagement and stimulation. However, establishing the theoretical underpinnings of humour has been somewhat problematic, perhaps due to the highly subjective nature of humour. The notion that incongruity lies at the heart of most humour has been widely (although not universally) accepted in various social science fields (Carrell, 2008). The notion of incongruity is especially apposite for this study, as most of the sentences in the humorous sentence lists use incongruity to challenge students' typical expectations or perceptions.

Numerous studies have explored the role of humour in enhancing language learning, and it has been shown to aid in the transmission of cultural knowledge (Davies, 2003; Muqun & Lu, 2006; Wagner & Urios-Aparisi, 2011), stimulating intrinsic learner motivation (Schmitz, 2002), and overall enjoyment of lessons (Garner, 2006). In terms of the role of humour in vocabulary learning, Ness (2009) noted that the deep processing associated with humorous wordplay can lead to better vocabulary acquisition and vocabulary recall. Furthermore, two recent studies have looked at the role of humour in both the learning and retention of English vocabulary. Zabidin (2015) used both humorous and non-humorous texts to teach (and later test) vocabulary acquisition. That study found that although both groups' scores increased from the pre-test to post-test stage, there was a small (non-significant) increase in the mean score of the group that used the humorous text. In a study of intermediate-level English language students in Iran, Mahdiloo & Izadpanah (2017) found that students who learned vocabulary items by watching humorous movie clips significantly outperformed students who learned the same vocabulary using non-humorous movie clips in post-testing. In addition, Mahdiloo & Izadpanah (2017) stated that their students reported increased motivation to learn vocabulary after watching the humorous movie clips.

Although the above-mentioned studies all reported some benefits from using humour to aid vocabulary acquisition, it is also important to note that other studies have found that humour may not always enhance learner motivation or interest. Fisher (1997) reported that students who watched a humorous version of a presentation performed significantly more poorly on a post-viewing vocabulary test than students who watched a non-humorous presentation. In addition, Fisher (1997) postulated that the humorous presentation may have even led to the students becoming distracted or confused about the task at hand.

With the mixed picture painted by previous studies that have looked at the connection between humour and vocabulary learning, there is clearly a need for other studies to explore this area further. In addition, the authors are not aware of any study that has examined the effectiveness of using humorous sentence lists to aid vocabulary acquisition. We predicted that the humorous sentence lists that formed the basis for this study would not have a statistically significant positive effect on vocabulary learning and acquisition. However, so long as there was no statistically significant *negative* effect, then (depending on the student evaluations of the effectiveness and usefulness of the humorous sentence lists) it may still be worthwhile to continue using them.

Methodology

Participants

The teaching and learning context for this study was a first-year medical English course at a public Japanese medical university. Students from four classes of approximately 25 students participated in the study. Two of those classes (the test group, n=50) received (1) the humorous sentence lists which we compiled for each of the 10 AWL sublists (HSLs) *and* (2) the non-humorous sentence lists for each of the 10 AWL sublists drawn from the 'Academic Word List in Use' textbook (NSLs). (Example HSL sentences are included in Appendix A and example NSL sentences are included in Appendix B.) The other two classes (the control group, n=55) received *only* the NSLs. In order to maintain the integrity of the test group and the control group, students in the test group classes were told that they were not allowed to share the HSLs with students in other classes, and that if they did (and they were caught) they would be penalised.

The Humorous Sentence Lists

It is also worth explaining how the HSLs were put together – and in particular, how the humorousness (or lack thereof) of the HSL items was evaluated. Prior to the start of this study, the HSLs were piloted with a small group (n=6) of second-year, third-year, and fourth-year medical students at our university. The rationale behind the pilot arrangement was not only to determine whether or not the HSLs were funny, but just as importantly to attempt to determine what sentences Japanese medical students deemed to be funny (or not funny). Of course, humour is, by its nature, a highly subjective phenomenon. However, provided that any purported study of humour uses

measurements of humour that are drawn from a representative sample of the population, they can be considered to be reliable (Kozbelt & Nishioka, 2010).

Accordingly, the pilot participants were asked to rate each HSL sentence on a scale of 1 ('not funny at all') to 4 ('very funny'). Any HSL sentences which received a 1 rating were immediately changed and re-piloted, and any sentences which received an average rating of less than 2 (not funny) were also changed and re-piloted. The result of this piloting process is that we ended up with HSLs which were, to the best of our knowledge, deemed to be funny for the average Japanese medical student (or at least, the average medical student at our institution).

Research Instruments

AWL tests

The participants in this study took a weekly AWL test that was administered during each Wednesday class (the course consisted of two classes per week – on Wednesday and Friday mornings). A sample AWL test is included in Appendix C. As can be seen in the sample, each AWL test consisted of 10 vocabulary items that were randomly chosen from the relevant AWL sublist (one sublist was covered per week, with each sublist consisting of approximately 60 vocabulary items). For each of the 10 vocabulary items in the AWL test, students were required to write grammatically correct English sentences which demonstrated that they understood the meaning of the word and the appropriate use of the word. One mark/point was given for each correct sentence, and the pass mark for each test was 7.5 out of 10. (Half-marks were given for minor errors that did not affect comprehension.)

The AWL tests comprised 20% of the students' final grade for the course, and for many students, performing well or performing poorly in the AWL tests could mean the difference between passing or failing the course. This was particularly so in relation to the four final AWL review tests that were given at the end of the course. In order to pass the course at all, students had to achieve a passing grade (7.5 or more out of 10) on one of the four final AWL review tests.

Accordingly, there were a total of 10 weekly AWL tests (one per AWL sublist), and four final AWL review tests. For the purposes of this study, test group learners' AWL test scores and control group learners' AWL test scores were compared at three stages of the course – the beginning of

the course (AWL test 1), the midway point of the course (AWL test 5), and the end of the course (the first of the final AWL review tests).

Student Questionnaire

A questionnaire was also distributed to the test group students at the end of the course. Students were asked to provide feedback about the HSLs and NSLs and also to indicate what methods they used to study for the weekly AWL tests. The questionnaire was administered in English, and while students were encouraged to answer in English, they were told that answering in Japanese was acceptable.

Results

The results of the study participants' AWL test scores at three milestone stages (AWL test 1, AWL test 5, and the first of the four final AWL review tests) are shown in Table 1. The results in Table 1 indicate that the mean test scores for both the test group and the control group decreased from test 1 to test 5, with a marginal difference between the mean scores of the two groups in test 1, and with the test group slightly outperforming the control group in test 5. This is perhaps evidence of the high levels of initial motivation (upon starting a new course) which then diminish somewhat by the middle of the course.

Table 1: Results of AWL Tests

Group	Test 1	Test 5	Review Test 1
HSL & NSL group (test group) n=50	8.92 (SD = 1.13)	8.73 (SD = 1.23)	8.38 (SD = 1.33)
NSL only group (control group) n=55	9.42 (SD = 0.68)	8.06 (SD = 1.60)	8.17 (SD = 1.19)

In order to establish whether there were any significant differences between the test group's test scores and the control group's test scores, two-tailed t-tests were conducted. The results of this analysis are reported in Table 2 below. The control group's mean score for test 1 (9.42) was higher than that of the test group's mean score (8.92) to a statistically significant degree, with a medium

effect size. Interestingly, for the mid-course test (test 5), there was a reasonably large drop in the control group's mean score (8.06). In addition, the difference between the control group's mean score and the test group's mean score also reached statistical significance and demonstrated a medium effect size. For the final review test, the two groups were not all that far apart, with the test group (8.38) achieving a slightly higher mean than the control group (8.17), although this difference did not reach a level of statistical significance.

Table 2: Significance Value and Effect Size of Test Group and Control Group AWL Test Scores

Test (Combined)	Significance (t-test, $p < 0.05$)	Effect Size (Cohen's d)
Test 1	0.007	0.59*
Test 5	0.019	0.33*
Review Test 1	0.402	0.13*

* 0.2 = small effect size; 0.5 = medium effect size; 0.8 = large effect size

In relation to RQ2 in this study, we collected questionnaire data about the various tools that students used to study for the AWL tests. The results of this data are shown in Figure 1 below.

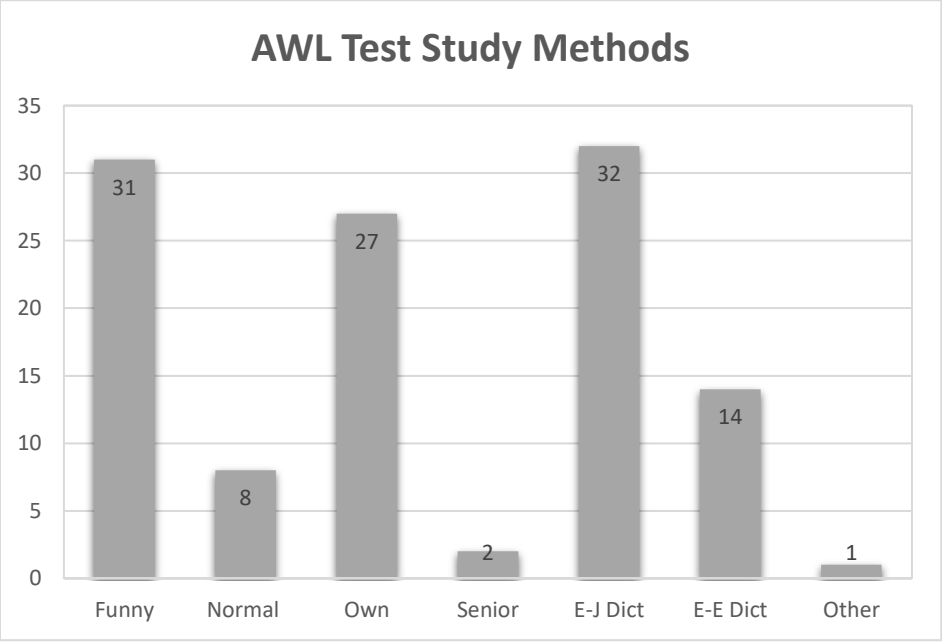

Figure 1. Study Methods Used by the Study Participants to Learn AWL items (n=44).

The data above shows that although the use of English-Japanese dictionaries (32 out of 44) is the most prevalent study method, the HSLs (31 out of 44) and students' own sentence lists (27 out of 44) were not far behind. Somewhat surprisingly, the NSLs appeared to be seldom used (8 out of 44), and perhaps even more surprisingly, senior-compiled sentence lists (2 out of 44) and other study methods (1 out of 44) were relied on even less.

Discussion and Questionnaire Analysis

RQ1: Does using the HSLs lead to higher AWL test scores?

The main thrust of this study was to determine whether using the HSLs would lead to better performance on AWL tests. Although the control group performed better than the test group in the initial AWL test, and the reverse was the case in AWL test 5, the performance of both groups in the final review AWL test were similar, with the test group slightly edging the control group. This led to the predicted finding that using the HSLs did not result in statistically significant higher AWL test scores.

However, the fact that using the HSLs did not lead to statistically significant poorer AWL test scores suggests that there is perhaps merit in their continued use. (And indeed, it is worth reiterating that the test group's mean score on the AWL review test (8.38) was slightly higher than that of the control group (8.17), although not to a degree of statistical significance.) Accordingly, if adding a little humour to an otherwise tiresome exercise (learning 570 AWL vocabulary items within one semester) does not have a negative impact, why would you willingly abandon it? In addition, the retention of the HSLs is clearly supported by the data in Figure 1 above, which showed that 31 of the 44 questionnaire participants (70%) used the HSLs to study for the AWL tests.

RQ2: What methods do our students use to learn AWL vocabulary items?

The finding that students predominantly relied on using a bilingual dictionary to learn the AWL vocabulary items should perhaps not be surprising. After all, bilingual dictionaries are, broadly speaking, one of the most widely-used and tried and tested vocabulary learning resources that are available to language learners (Atkins & Knowles, 1990; Laufer & Hadar, 1997; Loucky, 2003). Little could be gleaned from the questionnaire data about why so many students preferred this method of study for the AWL tests. However, students' continued reliance on dictionaries in place

of or in conjunction with other study methods could be worthy of further investigation, and should be considered by teachers when assigning vocabulary tasks.

The large difference between the number of students who reported using the HSLs (31 out of 44) and those who indicated that they used the NSLs (8 out of 44) is also noteworthy. Given that the NSLs are drawn from a recommended textbook for the course (*Academic Word List in Use*, 2015), it is somewhat surprising that so few students used them. However, the feedback from many of the students in the questionnaires revealed at least one plausible explanation for this. A number of students commented on the difficulty of the NSL sentences, and also the (at times) excessive length of some of the NSL items. Comments such as, "The [NSLs] has good sentences, but it is long and difficult, so I did not use the word lists", and "The [NSLs] are so difficult for me to remember the sentence and the meaning of the words", and even "I have never read them", or "I seldom use them" featured prominently. The HSLs were, by comparison, generally much shorter and simpler than the HSLs (see Appendices A and B for sample HSL and NSL sentences). Many students highlighted this fact as a reason why they preferred the HSLs over the NSLs. One student pointed out that the HSLs "have simple and easy sentences, so that I can understand and memorize words' meaning and usage", and this view was echoed by many other students. The difficulty and length of the NSL sentences may also explain why so many students (27 out of 44) chose to use sentences that they themselves had devised.

The final point of interest in relation to our learners' AWL study methods was the fact that only 1 out of 44 respondents indicated that they had used 'other' study methods to learn the AWL items. This was despite the fact that teachers in all of the classes devoted class time to addressing vocabulary learning strategies. For example, in one of the writers' classes, students were introduced to and practised using mnemonics, the word part technique (whereby words are broken down into their constituent parts (Wei, 2015)), and also concept of definition maps (Grabe & Stoller, 2011 – see Appendix D for an example of a concept of definition map). Learners were also encouraged to utilise extensive reading and extensive viewing (Webb & Nation, 2017) in order to support their vocabulary learning. Whether students tried these methods (or indeed any other methods) and found that they did not suit their learning style or whether they simply chose to stick with vocabulary learning methods that they were used to remains unclear. This is also an area that

could be explored further through more extensive student questionnaires or semi-structured interviews in the future.

RQ3: How do our students view the utility of the HSLs and the NSLs?

The learner comments in the previous section revealed that many students found the NSLs to be long and difficult, and in contrast, many learners stated that the HSLs were simpler to grasp and were better for memorising the AWL vocabulary items. Accordingly, it is clear that the ongoing use of the NSLs and also the recommendation that students purchase the textbook from which they are drawn need to be reconsidered. Going forward, it is perhaps worth exploring the possibility of using teacher-compiled NSLs that are similar to the HSLs (using shorter and less cognitively demanding sentences).

The large number of students (31 out of 44) who indicated that they had used the HSLs shows that there is clearly some viability in their continued use. Many students commented that the HSLs made studying for the AWL more enjoyable, and that the humorous sentences made AWL vocabulary items easier to remember. Opinions such as, "[HSLs] are very helpful for most of the students, so they should be kept", and "the [HSLs] made it easier and more enjoyable to remember the meanings of the words" captured these sentiments. However, it is important to point out that not all students were satisfied with the HSLs. A few students noted that they did not find the HSLs funny ("I'm sorry, but I didn't find the sentences funny but too abnormal"), and one student even said that he/she did not think that the HSLs were funny enough ("Please make the funny sentences more disgusting so that I could remember words more easily"). In addition, although 70% of the questionnaire respondents said that they used the HSLs, what is not clear from the data is how often and to what extent students relied on the HSLs to learn the AWL vocabulary items. This may also be worth following up further in order to provide a clearer picture of how the HSLs fit into students' overall AWL vocabulary study habits.

Conclusion and Limitations

Academic vocabulary learning can be a tiresome, mind-numbing process for many second language learners, and so exploring ways to make it a more enjoyable and efficient process are surely worth consideration. This study sought to determine whether using humorous sentence lists to help students to learn academic vocabulary would result in improved uptake of those vocabulary

items. Although the group who used the HSLs marginally outperformed the control group in the final review test, this difference was not statistically significant. Nevertheless, the fact that using the HSLs did not result in poorer overall AWL tests results, combined with the generally very positive feedback from the learners about the usefulness of the HSLS, suggests that there is merit in continuing to use and research the effectiveness of the HSLs in future courses.

The results of this study also provided valuable feedback about what methods our students employ to learn AWL vocabulary items. The use of bilingual dictionaries, HSLs, and students' own sentence lists were the most highly-favoured vocabulary study resources, with the NSLs, senior-compiled sentence lists, and 'other' vocabulary study methods being utilised by only a handful of students. The information gleaned from this study suggests that encouraging greater use of the NSLs may be as simple as creating a teacher-compiled list of 'normal' sentences to be given to the students along with the HSLs. However, as far as promoting other methods of vocabulary learning, the picture remains somewhat foggy. Clearly more information is needed about why and to what extent our learners appear to be shunning other vocabulary learning methods (such as flash cards, mnemonics, and so on). In the meantime, teachers could attempt to address this situation by devoting more class time (or maybe more follow-up time) to other vocabulary learning methods, and there could also be better coordination as to exactly what vocabulary learning techniques teachers are exposing their students to.

Finally, it is important to highlight that there are a number of limitations in relation to the veracity and generalisability of the findings in this study. First and foremost, the problems that emerged from the questionnaire data about the complexity of the NSLs (and the fact that so few students appeared to use the NSLs) casts some doubt on the reliability of the comparisons between the HSLs and the NSLs. It may be the case that what we were actually measuring was not the effectiveness of the HSLs as against the NSLs, but the effectiveness of the HSLs as against all other vocabulary learning methods. There are also some confounding variables that may limit the findings reported in this study, such as the extent of learners' prior exposure to the AWL items, varying degrees of language aptitude among the students, and so on. One key variable that we do not have measurements for is the extent to which students used one or more different vocabulary learning methods. Perhaps the next phase in this research project could devote more attention to precisely what vocabulary learning methods our students use, and to what extent and for how long

they use them. This could perhaps be achieved by asking our students to keep an AWL vocabulary learning diary. Clearly, the final word on the subject matter of this study is yet to be uttered.

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Appendix A

Sample sentences from the humorous sentence lists*

AWL item	*Sample HSL sentence*
contract	Tom signed the new **contract** and then used it as toilet paper.
secure	Wearing samurai armour to bed helps Tom feel **secure**.
remove	Tom **removed** his liver, ate it, and then died.
impose	The government **imposed** a new tax on elderly ladies with purple hair.
orient	It took a while for Kate to become **oriented** to living in a cardboard box.
intelligence	Tom has about the same level of **intelligence** as his pet rat.
dispose	Kate **disposed** of the uranium by feeding it to the birds in the park.
infrastructure	Tokyo's **infrastructure** was damaged when Godzilla farted.
passive	Tom's favourite hobby is **passive** smoking.
undergo	Kate will **undergo** an operation to remove the horns on her head.

* A sample sentence was provided for one vocabulary item from each of the 10 AWL sublists.

Appendix B

Sample sentences from the non-humorous sentence lists*

AWL item	*Sample NSL sentence*
contract	A **contract** is seen as a legal agreement between two parties.
secure	Please ensure all your belongings are **secure** when in any crowded place in order to avoid any loss of your items.
remove	A Ryanair flight was forced to do a u-turn just 20 minutes after departure after the crew realised that they had forgotten to **remove** luggage from a previous flight.
impose	We shall **impose** a penalty for those not able to settle their dues by the date shown in the contract.
orient	Networking is about helping other people and to do this you have to **orient** yourself toward thinking of other people before thinking of yourself.
intelligence	Undoubtedly some will be unable to cope with this emphasis on self-management because they lack either the **intelligence** or perhaps, more importantly, the motivation to do so.
dispose	That means we are looking at having to **dispose** of around two and a half million tons of wet sewage every year by the end of the century.
infrastructure	We support the location of new industrial and commercial developments in areas already well-served by good transport and **infrastructure** and public transport.
passive	They may also feel that they have no right to put their children at risk by making them **passive** smokers.
undergo	Rather than increasing the sentence, three appeal court judges substituted a three-year probation order requiring him to **undergo** treatment or counselling.

* A sample sentence was provided for one vocabulary item from each of the 10 AWL sublists. (These sentences were reproduced from the IELTSedits (2015) 'Academic Word List in Use' textbook.)

Appendix C

Sample AWL test

Group 5

Name: Student number:

Academic Word List section (10 minutes)

Make a sentence using each of the following words. Your sentences should:

1) Use the word with its correct academic meaning.
2) Make the meaning of the word clear.
3) Be grammatically correct.

Bad example: “I like analyzing.”

Good example: “I analyzed the data from my experiment.”

1) pursue:

_____

_____

2) version:

_____

_____

3) sustain:

_____

_____

(4) style:

_____

_____

(5) trend:

_____

_____

(6) whereas:

(7) alter:

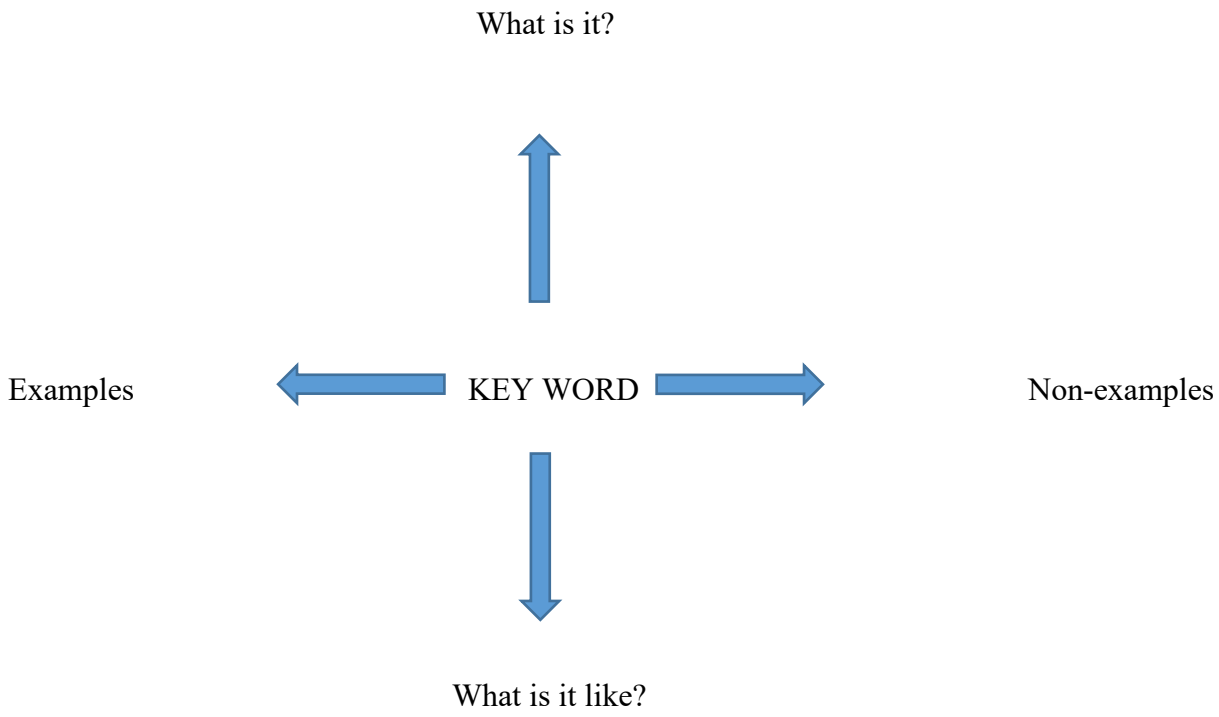
(8) discrete:

(9) expand:

(10) evolve:

Appendix D

Concept of definition map*



* Taken from Grabe & Stoller (2011), p. 139.

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Teaching Style Preferences in EFL and EAP Teachers: Matches and Mismatches

Masoomeh Estaji

Associate Professor of Applied Linguistics, Allameh Tabataba'i University, Iran

Mojtaba Esfandyari

M.A. in TEFL, Allameh Tabataba'i University, Iran

Biodata

Masoomeh Estaji is Associate professor of Applied Linguistics at Allameh Tabataba'i University. She holds a Ph.D. in TEFL from Allameh Tabataba'i University. She has participated, presented, and published numerous papers on methodology, testing, English for Specific Purposes, and teacher education. Her research interests include language testing and assessment, teacher education, and ESP.

Email: mestaji74@gmail.com

Mojtaba Esfadyari is a PhD Candidate of TEFL at the University of Tehran. He holds an MA in TEFL from Allameh Tabataba'i University. His areas of interest are teacher education, ESP, and second language acquisition.

Email: m.esfandyari@hotmail.com

Abstract

Teachers' beliefs, knowledge, and practices have gained momentum in the studies conducted in mainstream education. Teaching style, in particular, has received considerable attention; however, it has not been examined in English for Academic Purposes (EAP) contexts, nor has it been

compared with EFL. Hence, the present study attempted to examine the similarities and differences between EFL and EAP teachers considering their teaching styles. To collect quantitative data, the Teaching Style Inventory (Grasha, 1994) was distributed among 101 EFL and EAP teachers. As for the qualitative data, a semi-structured interview was conducted with 15 participants of each group. The results of Multivariate Analysis of Variance (MANOVA) revealed that there were significant differences between the two groups in that EFL teachers showed preference for the Facilitator, Personal Model, and Expert styles and EAP teachers for Expert, Personal Model, and Delegator styles. Furthermore, the interview results revealed that EAP teachers preferred the Expert and Delegator styles whereas EFL teachers were in favor of Facilitator and Personal Model. Particularly, EAP teachers were interested in sharing personal discipline-related experiences and practices. The findings of this study offer implications for teacher educators who collaboratively work with teachers, assisting them in swapping their teaching styles through pedagogical training.

Keywords: teacher education, teaching style, EFL, EAP, teacher practice

Introduction

With the rise of the post-method era, the particularities of the educational milieu require principled and well-trained teachers to adopt and implement policies and strategies, which are most likely to serve their particular purposes (Kumaravadivelu, 2001). When it comes to language teaching in general, and language teaching for specific purposes, in particular, the role of teachers becomes more prominent. In the domain of English for Specific Purposes (ESP), many teachers' roles and responsibilities such as "needs assessor, specialized syllabus designer, authentic materials developer, and content knowledge instructor" (Belcher, 2006, p. 139) are very likely to witness certain changes. For instance, course design and materials selection in EAP may also vary based on the practitioners' role as a facilitator/consultant or a provider (Dudley-Evans & St John, 1998). Hence, the nature of the teacher-learner relationship and teachers' teaching styles in pedagogical contexts can unravel certain mysteries, and awareness of these factors helps tackle some pedagogical problems in the classroom.

Teaching style is the representation of the totality of one's philosophy, beliefs, values, and behaviors in teaching (Jarvis, 2004). Grasha (2002) defines teaching style as "enduring personal qualities and behaviors that appear in how we conduct our classes" (p. 1). Thus, it not only reflects

the teachers' deep-rooted assumptions, but also leads their instructional practices. As Fischer and Fischer (1979) put it: Style is a pervasive quality residing within the teacher no matter what the content is. Teacher cognition and the way a teacher views learners and the learning process can play a role in both adopting and adapting the teaching styles shaping classroom practices (Borg, 2015). In other words, there is some sort of psychological behavior behind every type of style a teacher adopts (McCourt, as cited in Sugrue, 2005).

Examination of the previous research studies reveals that researchers have developed various categorizations of teaching styles and have used different terminologies to describe different styles of teaching. The categorization of teaching styles into visual, auditory, group, kinesthetic, individual and tactile styles (Salem, 2001), Formal-Informal (Bennett et al., as cited in Akbari, Kiany, Imani Naeeni, & Karimi Allvar, 2008), Open –Traditional (Solomon & Kendall, as cited in Akbari et al., 2008), Intellectual Excitement – Interpersonal Rapport (Lowman, 1995), expert, formal authority, personal model, facilitator, and delegator (Grasha, 2002), are only some of the attempts made to elucidate the construct.

Even though the importance of style in teaching is widely accepted, the underlying components of our styles as teachers still remains to be identified (Grasha, 2002). Teaching style has been investigated in several studies in certain contexts (Akbari et al., 2008; Baradaran & Hosseinzadeh, 2015; Ghanizadeh & Jahedizadeh, 2016; Grasha, 1994, 2002; Lowman, 1994, 1995). However, such concerns have not been scrutinized in Iranian EAP context where traditional classes are still dominant. The other problem arises from the potential similarities and differences between EFL and EAP teachers, which might pose challenges, lead to aberrations, and leave the teachers bewildered barring an awareness of the peculiarities of each. In addition, empirical studies of ESP teachers or teaching seem to be limited in scope (Basturkmen, 2006; Kuzborska, 2011; Richards, 1997; Wu & Badger, 2009).

Considering the mentioned problems, the present study has addressed the pedagogical styles of EAP teachers in state universities in Iran and the concomitant modes of behavior required in such courses in comparison with those preferred by EFL teachers.

Literature Review

Knowledge transmission has been known as a feature typical of a traditional view of teaching. In this teaching-centered view, teachers are seen to be responsible for transmitting what they know to their students. Freire (1970, p. 72) has used "banking metaphor" to describe the knowledge transmission nature of this traditional view: The teacher "makes deposits" of information into students who are to receive, memorize, and repeat it. This knowledge transmission, in decline for some time, does not seem to have fallen out of favor completely, neither in EFL nor in EAP classes.

A skilled teacher's organization of knowledge can help students understand and remember what has been transmitted. As reported by Rachamim and Orland-Barak (2018), in their study through video-recorded meetings and semi-structured interviews, styles and patterns of mentor talk were found to play a pivotal role in the development of a specific learning environment in a student teacher community. Richards and Rodgers (2014) have adopted a more pervasive position which gives credit to an amalgamation of approaches and bears the hallmarks of more humanistic and holistic orientations. The teacher's role there is to facilitate communication among learners during the set activities, provide learners with insights into how to become a successful and autonomous language learner by sharing his/her own personal experiences of language learning, and to organize resources.

However, student-led negotiations and discussions in teacher silence do not necessarily lead to the students' active participation (Reynolds & Townsend, 2018). This notion can be supported through a balanced approach, reinforcing the fact that student-led dialogues without teachers' mediation cannot lead to disciplinary depth, and thus all voices should be heard (Reynolds & Townsend, 2018). This concern can be more accentuated in particular contexts. Butler (2011) and Littlewood (2013) have reported a number of challenges which communicative language teachers, with a focus on autonomy support, encounter in Asian contexts. These challenges might arise at the level of classroom or society or due to teachers' and learners' mismatches in their perceptions and expectations. As Conti (as cited in Lucas, 2005) contends, teachers are constantly under the influence of their life experiences, beliefs, and expectations behind. Teachers do not randomly select their teaching style, and they do not constantly change it. Instead, "their style is linked to their educational philosophy, which in turn is a subset of their overall life philosophy" (p. 80).

A low reflective teacher might find himself comfortable with a specific style, oblivious to the well-being of their students. Further, they might find themselves non-plussed while trying to adopt the most appropriate style, without resorting to their sense of reflectivity. With reflection comes a feeling of relativism, requiring the teacher to scrutinize their preferred styles and thus eschew their parochial view of clinging to only a certain style. Regarding the influence of teaching styles, Ghanizadeh and Jahedizadeh (2016) revealed that three teaching styles (Model, Facilitator, and Delegator) appeared to contribute to burnout prevention whereas the other two teaching styles (Expert and Authority) had no significant role. Therefore, cognizance of the predominant styles and practices in classroom contexts can offer invaluable insights and then raise the teachers' awareness.

While many researchers have argued that style is important in teaching, identifying the underlying components of teachers' styles has proved to be difficult. Various classifications of teaching style have been presented in the extant literature. Among the already-established frameworks and categorizations of teaching style, Grasha's (1994) model proposes 5 major categories as explained below:

- **Expert:** By displaying detailed knowledge and by challenging students to enhance their competence, an expert style teacher is concerned with transmitting information.

- **Formal authority:** These teachers are different from those with expert style since they are considered not only to be knowledgeable but also to provide students with feedback, whether negative or positive, and set their goals, codes of conduct and expectations.

- **Personal model**: Teachers teach by personal example and provide a role model or frame of reference for structuring the way of thinking and behaving. They oversee, guide, and draw students' attention to the ways things should be done by asking them to notice their (teachers') manners.

- **Facilitator**: Teachers guide and direct students by asking questions, exploring options, and suggesting alternatives to develop in students the capacity for

independent action, initiative, and responsibility. Such teachers work with students on projects

- **Delegator**: Teachers are concerned with developing the students' capacity to function autonomously. Students work independently on projects or as part of autonomous teams. The teacher is available at the request of students.

It can be posited that placing teachers into one of these styles is a premature decision since teachers possess at least a scintilla of all these characteristics. In practice, as Grasha (2002) put it, "each individual style was like a different color on an artist's palette. Like those colors, they could be blended together" (p. 153). This point is further supported in a study with 110 teachers of Queensland Senior Physical Education. A range of styles were found to be used in teachers' self-reports (SueSee, Edwards, Pill, & Cuddihy, 2018).

In all, four combinations of styles were more ubiquitous in Grasha's categorization. Each of these four clusters is presented in Table 1.

Table 1: Method Associated with Each Teaching Style Cluster (Grasha, 2002)

CLUSTER 1	CLUSTER 3
Primary styles:	*Primary styles:*
Expert/formal authority	Expert/facilitator/personal model
Secondary styles:	*Secondary styles:*
Personal model/facilitator/delegator	Formal authority/ delegator
Lectures	Small group discussion
Term papers	Laboratory projects
Tutorials	Instructor-designed group project
Guest Presentations	Student teacher of the day
Video/audio presentations of content	Self-discovery activities
Guest speakers	Learning pairs/debates
Teacher-centered class discussions	Case studies
Strict standards/requirements	Role plays/simulations
Grades/tests emphasized	Problem-based learning
	Practicum/guided readings
CLUSTER 2	CLUSTER 4
Primary styles:	*Primary styles:*
Expert/ personal model/formal authority	Expert/facilitator/delegator
Secondary styles:	*Secondary styles:*
Facilitator/delegator	Formal authority/personal model
Demonstrating ways of thinking/doing things	Student-designed group projects
Coaching/guiding students	Independent study
Illustrating alternatives	Independent research projects
Sharing personal viewpoints	Position papers

Sharing thought processes involved in obtaining answers	Student journals
	Modular instruction
Using personal examples to illustrate content points	Self-discovery learning projects
Having students emulate the teacher's example	Contract teaching
	Cooperative learning activities

Many of these teacher qualities have been the focus of a plethora of research studies in mainstream education. In particular, several research studies have already been conducted on the relationship between teaching styles and some other variables. Seevers and Clark (as cited in Liu, Qiao, & Liu, 2006) investigated 13 independent variables such as major, current professional position, number of years employed, highest educational degree, number of adult education classes taken, teaching experience outside of the present employment, gender, and age. It was found that none of the variables in the study were related to the others.

As for gender differences in the selection of teaching styles, Wilkesmann and Lauer (2015) showed that female professors at research universities prefer a more student-focused approach to teaching. In another study by Amini, Samani, and Lotfi (2012), female faculty members' favorite teaching style was Expert, while for male faculty members, Expert and Delegator were the dominant teaching styles. No significant difference was found in comparing the faculty members' preferred teaching method in terms of education level.

Content of the course and level of education have also been found to be a major factor, though showing contradictory results. Grasha's (2002) report shows the instructors' tendency to use Expert and Personal model methods in undergraduate levels and Facilitator and Delegator in postgraduate levels. The expert style was used more frequently in the fields of mathematics, computer science, arts, music, and theater. The facilitator and delegator teaching styles occurred to a lesser extent in the mathematics and computer science courses than in other academic areas. These styles were observed more often among teachers in education and arts, music, and theater. McCollin (2000) found a significant relationship between the instructors' teaching style, their educational level, and the type of courses they teach. Liu et al.'s (2006) study, however, does not confirm that variables such as level of education, and type of courses significantly influence the teaching styles of the teachers.

Teaching style seems to be related to the learner, teacher, situation, discipline, and the content of the curriculum. Wilkesmann and Lauer (2015) in their study with two representative surveys

among German professors in the years 2009 and 2011 revealed the potential influences on two different teaching approaches: Student-focused and teacher-focused. The research results indicated that the disciplines seem to exert a considerable impact. In addition, continuing pedagogical training (only for professors at research universities) and interaction among professors regarding teaching are identified as influential factors fostering a student-focused teaching approach.

Such disciplinary variations were also reported by Kassaian and Ayatollahi (2010). They found that college teachers at the department of English in Islamic Azad University in Shiraz strongly favored Formal Authority and Expert styles of teaching for teaching EAP courses, while Personal Model and Facilitator teaching styles were strongly favored for teaching proficiency-oriented (general language) courses. Additionally, they showed that the teachers' opinions with respect to their favorite teaching styles are situational and context-dependent. In another study, however, it was claimed that teaching styles are constant even though the content that is being taught may change (Bautista, 2007).

As for EFL classrooms, Kazemi and Soleimani (2013) examined the most prominent styles EFL teachers employed. They revealed that the teachers dominantly preferred the formal teaching styles in official settings of language teaching in Iran. Karimi Moonaghi et al. (2010) also reported that teachers adopt relatively different styles in their teaching context. They believed, in clinical education settings, teachers have to use diverse styles to achieve different goals and cover the content. In another study, Benson (2010) explored teachers' preference for their styles. The findings of the interview with teachers revealed that the majority of the teachers evinced a shared penchant for more student-centered classes which are more responsive to the abilities and interests of the students. Thus, the teachers' practices in the classroom should undergo alterations to commensurate with their wants and needs.

In the extant studies, teaching style has also been examined in various disciplines such as physical education (Morgan, Kingston, & Sproule, 2005), as well as medicinal chemistry, and engineering (Alsharif & Qi, 2014; Chowdhury, 2015) or in connection with teachers' attitude toward Facebook and web technology as educational tools (Prescott, 2014; Kale & Goh, 2014). In terms of achievement, teaching style was also studied as perceived by learners and teachers. The findings revealed that the magnitude of the coefficient differed depending on the students' or teachers'

perceptions with the former reporting a larger effect of style on achievement (Hidalgo-Cabrillana & Lopez-Mayan, 2018).

Additionally, Papanagnou et al. (2016) reported that orientating teaching styles toward the students' self-perceived learning style in medical education did not necessarily lead to a more favorable learning atmosphere, thus attaching importance to multiple learning and instructional styles. Another study by Flunger, Mayer, and Umbach (2018) provided some evidence in support of autonomy-supportive intervention in physics, augmenting need satisfaction, positive achievement emotions, and learning behaviors while negative emotions were reported to decline. González et al. (2018) called for various interventions to boost instructors' teaching styles and contended that professional competencies, initial self-efficacy, and commitment should be developed in pre-service teachers.

EFL Teachers' teaching styles have also been found to have a relationship with their content knowledge (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998), their behavior in the class (Zhang, 2007), their management skills (Yilmaz & Cavaş, 2008), teaching thinking skills (Dilekli & Tezci, 2016), the context of teaching (Rahimi & Nabilou, 2011), and self-efficacy (Tschannen-Moran & Hoy, 2001). Nevertheless, it has received little attention in the realm of second language pedagogy (Akbari et al., 2008; Baradaran & Hosseinzadeh, 2015; Ghanizadeh & Jahedizadeh, 2016; Razak, Ahmad, & Shah, 2007). Hence, the present study attempted to examine the teaching style preferences of EFL and EAP teachers and relied on Grasha's (1994) framework to lay the foundation for the analyses. The following research questions were addressed in this study.

1. Is there any statistically significant difference between Iranian EFL and EAP teachers regarding their teaching style preferences?
2. What are the preferred teaching styles among Iranian EAP and EFL teachers?

Methodology

Participants

The participants of this study consisted of 101 Iranian teachers (49 EAP and 52 EFL teachers), with university education (MA, or Ph.D. degree), who have been working in universities across the country. Both EFL and EAP practitioners teaching in such fields as English Teaching (TEFL)

and engineering and humanities courses (EAP) were included from the state universities. The age range varied from 24 to 52. There were 55 male (54%) and 46 female (45%) teachers in total. Table 2 presents the field of study, frequency, and percentage of the participants of this study.

Table 2: Demographic Information of the Participants

	Participants' Major	Frequency	Percent
EAP	Civil Engineering	3	3.0
	Computer Sciences	16	15.8
	Electronics Engineering	6	6.0
	Industrial Engineering	11	10.9
	ICT	4	4.0
	Mechanical Engineering	5	5.0
	Robotics Engineering	3	3.0
	Urban and Regional Planning	1	1.0
TEFL	English Teaching	52	51.5
Total		101	100

It is noteworthy that the participants were selected through snowball sampling. To do so, the researcher consulted with the supervisor, then meet teachers from different universities in person and obtained their permission and collected the filled questionnaires after a week. Although several university teachers had received the hard copy of the questionnaire, only a few managed to fill in after at least two weeks. Since the number of EAP teachers was limited, with the assistance of the first group of participants, emails were also sent to teachers teaching in different universities, such as: Tehran, Isfahan, Shiraz, Tabriz, Qazvin, Mashad, Babol, Babolsar, hoping that an adequate number of respondents would come forward at their will. Decision was then made to collect data through snowball sampling.

Additionally, based on convenience sampling, 30 (15 EAP and 15 EFL) participants were selected for a follow-up interview. The criterion for choosing the interviewees was the availability of the teachers for the interview in Tehran, provided that the selected instructors gave their consent for further cooperation.

Instruments

Teaching Style Inventory

For the purpose of this study, Grasha-Riechmann's Teaching Style Inventory (1994) which consists of 40 items was selected and distributed to gain insight into the teachers' teaching styles. The questionnaire itself starts with an unfinished sentence: "When teaching my class, I would most be likely to…" Each item is scored using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The five teaching styles (Grasha, 1994) considered in this questionnaire are Expert (measured by eight items: Items: 1,6,11,16,21,26,31,36, Formal Authority (Items: 2,7,12,17,22,27,32,37), Personal Model (Items: 3,8,13,18,23,28,33,38), Delegator (Items: 5,10,15,20,25,30,35,40) and Facilitator (Items: 4,9,14,19,24,29,34,39). The reliability of the Questionnaire as calculated was .81, which is a high reliability index. Since the teaching style questionnaire had 5 subscales measuring 5 styles, Cronbach's alpha as a measure of internal consistency was run separately for each subscale. The results indicated that the Expert subscale (α= .56), the Formal Authority subscale (α= .69), and the Delegator subscale have a mediocre internal consistency reliability, whereas the Personal Model subscale (α= .81), and the Facilitator subscale (α= .79) have a high internal consistency reliability.

Interview

After administering the two questionnaires and conducting data analysis, for the qualitative phase of the study, 30 instructors were selected for an in-depth semi-structured interview lasting about 15 to 20 minutes. An equal number of EAP and EFL teachers (15 EAP and 15 EFL) took part in the interviews. After reviewing the literature and perusing the questionnaire items, several themes were extracted, which were used to develop the interview questions. The questions required for the interview phase were developed by the researchers and the items were reexamined by two language experts and two content teachers to ensure the appropriateness of their content and language.

Data Collection Procedure

In order to carry out this study, the teaching style questionnaire was first piloted on around 30 participants to ensure its reliability. Then the questionnaire was distributed, using snowball

sampling, among 49 EAP teachers in various universities where EAP classes were being held as well as 52 university EFL teachers (teaching general English). The instructions on how to fill out the questionnaires were provided along with the email address of the researchers for further clarification with regard to the online questionnaire. The teachers were requested to complete the questionnaire during non-instructional time at their convenience, enclose, and return them to the researchers within one week of its receipt. The respondents were guaranteed that their identity as well as their responses would be kept confidential.

For the qualitative phase of the study, based on the consent of the participants, 15 instructors from each group (i.e., EAP and EFL) were selected for an in-depth semi-structured interview about their perceptions of and preferred teaching styles. The interviews were recorded on a Digital Voice Recorder and were transcribed, categorized, and analyzed for the purpose of the study.

Results

The first research question focused on the differences in the teaching styles of EAP and EFL teachers. To analyze the data and respond to this research question, first, descriptive statistics were calculated. Table 3 reveals the results of descriptive statistics. As regards Expert, the descriptive statistics for EFL and EAP groups were found to be different (*M = 3.63, SD = .33* and *M = 4.07, SD = .36*), suggesting that EAP teachers were more inclined to expert style of teaching. For the second element, Formal Authority, the descriptive statistics also showed differences (*M = 3.18, SD = .28* and *M = 2.87, SD = .29*) for EFL and EAP teachers.

With respect to Personal Model style, the descriptive statistics for EFL and EAP teachers were found (*M = 4.17, SD = .53* and *M = 3.94, SD = .18*) respectively, showing a strong penchant for this style of teaching on the side of EFL teachers. The main difference was found in the Facilitator style of teaching, between the two groups (*M = 4.18, SD = .39* and *M = 3.68, SD = .51*), meaning that EFL teachers tend to adopt this style more than their counterparts in EAP contexts. As for Delegator style, there was only a slight difference with EFL teachers being less oriented to this teaching style (*M = 3.51, SD = .34* and *M = 3.77, SD = .46*). Table 3 presents the details of all the above descriptive statistics.

Table 3: Descriptive Statistics for Pedagogical Style

	Group	Mean	Std. Deviation	N
Average.expert	General English	3.63	.33	52
	Specialized English	4.07	.36	49
	Total	3.84	.41	101
Average.formal authority	General English	3.18	.28	52
	Specialized English	2.87	.29	49
	Total	3.03	.32	101
Average.personal model	General English	4.17	.53	52
	Specialized English	3.94	.18	49
	Total	4.05	.42	101
Average.delegator	General English	3.51	.34	52
	Specialized English	3.77	.46	49
	Total	3.63	.42	101
Average.facilitator	General English	4.18	.39	52
	Specialized English	3.68	.51	49
	Total	3.94	.52	101

In order to check the statistical significance of these differences, Multivariate Analysis of Variance (MANOVA) was run as follows. First, the normality assumptions were tested using univariate normality (via skewness & kurtosis ratios), linearity (by scatterplot), univariate and multivariate outliers (by calculating Mahalanobis distances), homogeneity of variance (by running the Leven test), covariance matrices (by running Box's test), and multicollinearity (by checking correlation between the dependent variables), with no serious violations noted. Afterward, MANOVA was run and the results (Table 4) showed that there was a statistically significant difference between the two groups on the combined dependent variables in adopting their styles of teaching (*Wilks' Lambda = .32 F = 39.09 p < .01 d = .67*).

Table 4: Multivariate Tests (Dependent Variable: Teaching Styles)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.998	7998.58[b]	5.00	95.00	.000	.99
	Wilks' Lambda	.002	7998.58[b]	5.00	95.00	.000	.99
	Hotelling's Trace	420.97	7998.58[b]	5.00	95.00	.000	.99
	Roy's Largest Root	420.97	7998.58[b]	5.00	95.00	.000	.99
Group	Pillai's Trace	.67	39.09[b]	5.00	95.00	.000	.67
	Wilks' Lambda	.32	39.09[b]	5.00	95.00	.000	.67
	Hotelling's Trace	2.05	39.09[b]	5.00	95.00	.000	.67
	Roy's Largest Root	2.05	39.09[b]	5.00	95.00	.000	.67

a. Design: Intercept + group
b. Exact statistic

Likewise, as can be seen in Table 5, when looking at the five factors separately, there were significant differences in all five factors. The obtained results for each style, i.e., Expert (*F = 40.36 p < .01*), Formal Authority (*F = 29.28 d = .22*), Personal Model, Facilitator, and Delegator factors (*F = 8.02 d = .07, F = 30.36 d = .23*, and *F = 9.84 d = .09*, respectively), revealed that each group was more inclined to certain styles, although they applied all the styles to varying degrees. Thus, there were statistically significant differences between EAP and EFL teachers in terms of their perceived teaching styles.

An inspection of the mean scores also indicated that the order of priority for EAP teachers is Expert (4.07), Personal Model (3.94), Delegator (3.77), Facilitator (3.68), and Formal Authority (2.87), while EFL teachers' preferences are for Facilitator (4.18), Personal Model (4.17), Expert (3.63), Delegator (3.51), and Formal authority (3.18), reflecting EFL teachers' tendency to adopt personal model and facilitator styles.

Table 5: Tests of Between-Subjects Effects (Dependent Variable: Teaching Styles)

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Average.expert	4.92[a]	1	4.92	40.36	.00	.29
	Average.formal authority	2.46[b]	1	2.46	29.28	.00	.22
	Average.personal model	1.32[c]	1	1.32	8.02	.00	.07
	Average.delegator	1.65[d]	1	1.65	9.84	.00	.09
	Average.facilitator	6.46[e]	1	6.46	30.36	.00	.23
Intercept	Average.expert	1500.08	1	1500.08	12290.48	.00	.99
	Average.formal authority	927.21	1	927.21	11022.23	.00	.99
	Average.personal model	1660.09	1	1660.09	10034.12	.00	.99
	Average.delegator	1338.80	1	1338.80	7972.41	.00	.98
	Average.facilitator	1563.94	1	1563.94	7344.56	.00	.98
Group	Average.expert	4.92	1	4.92	40.36	.00	.29
	Average.formal authority	2.46	1	2.46	29.28	.00	.22
	Average.personal model	1.32	1	1.32	8.02	.00	.07
	Average.delegator	1.65	1	1.65	9.84	.00	.09
	Average.facilitator	6.46	1	6.46	30.36	.00	.23
Error	Average.expert	12.08	99	.12			
	Average.formal authority	8.32	99	.08			

	Average.personal model	16.37	99	.16
	Average.delegator	16.62	99	.16
	Average.facilitator	21.08	99	.21
Total	Average.expert	1513.31	101	
	Average.formal authority	941.67	101	
	Average.personal model	1682.06	101	
	Average.delegator	1355.46	101	
	Average.facilitator	1598.85	101	
Corrected Total	Average.expert	17.01	100	
	Average.formal authority	10.79	100	
	Average.personal model	17.70	100	
	Average.delegator	18.27	100	
	Average.facilitator	27.54	100	

a. R Squared = .290 (Adjusted R Squared = .282)

b. R Squared = .228 (Adjusted R Squared = .220)

c. R Squared = .075 (Adjusted R Squared = .066)

In responding to the second research question, regarding the preferred teaching styles of EFL and EAP teachers, the analysis of interview data revealed the findings shown in Figure 1.

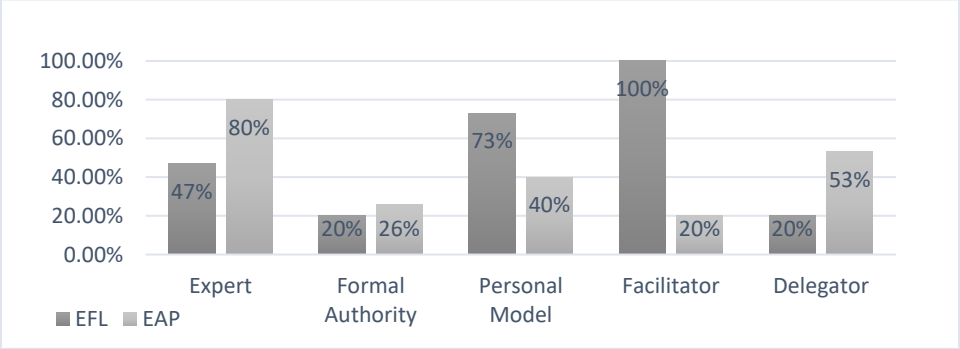

Figure 1: Preferences for Each Teaching Style by EAP and EFL Teachers

The data showed that the teaching styles of Facilitator and Personal Model found favor highest (100% and 73%, respectively) by EFL teachers. On the contrary, the Delegator and Formal Authority styles were found to be the least preferred ones (20% each) among the EFL teachers. However, Expert style was moderately adopted (47%) by a few. As for the Facilitator style, all the teachers showed preference and several themes were identified. Pointing at the particular needs and learning styles of the students, an EFL teacher remarked that:

> *I ask them to participate in projects to broaden their view on a subject. I also treat them and expect them based on their individual talents and styles. The classes I teach are extremely heterogeneous in terms of students' language proficiency, I have to change my teaching style. Some are at too low level of proficiency. Before I provide the answer for any problem in the class, I always ask their opinion, let them fight with each other, discuss, and prove each other that the other group is wrong.* (Teacher 7)

The second preferred teaching style, adopted by EFL teachers (66%), was Personal Model. Throughout the interview, references were made to their role which was consistent with pre-conceived theories and categories existing in the literature. EFL teachers were not found to be interested in such a style of teaching unless they were led toward this style (such as time constraints, final test contents, etc.). For the other two teaching styles; (i.e., Formal Authority and Delegator), EFL teachers did not show much preference (20% for each). They stated that they were facilitators and role models; thus, they reportedly did not arrogate to themselves the right to set strict goals and predetermine the process of learning by themselves.

On the other hand, as can be seen in Figure 1, EAP teachers preferred to adopt the teaching styles of Expert and Delegator and, to a lesser extent, Personal Model (80%, 53%, and 40%, respectively). To them, the Facilitator and Formal Authority styles were less of a concern. However, an inconsistency was found in their responses of the questionnaires and their comments in the interview data regarding the Personal Model style.

Regarding the Personal Model style, following a closer analysis of these codes related to Personal model and those raised by EFL teachers, it was revealed that EFL teachers placed their emphasis more on linguistic aspects, and more specifically, language beyond the word or sentence level, such as collocation, phrases, connectors, and intonation, which can prove beneficial in writing or speaking task. However, EAP teachers, as a role model, placed more emphasis on content matters and the practical aspects of their career, which were related to the topics in the passages. Further, their concern about linguistic aspects were confined to the components of language as building blocks, i.e., words, grammar structures, translation, and pronunciation of the words. The two

excerpts below can indicate the concerns and practices of each group of the teachers. For instance, an EAP teacher commented that:

> *As an instructor of English in Urban Planning & Design, I ask the students to read and be ready for the article chosen to work on in the next session. Although I give them the option to choose English passages about their interest, the selection of most articles is carried out by me. I provide them with the knowledge necessary for them as planners and designers. In the class sessions, it is the student's duty to read the articles and translate them. As an expert, I'm responsible to correct their incorrect pronunciation and translation. Furthermore, I use my theoretical and practical knowledge of the field to explain the matters stated in the articles.* (Teacher 11)

An EFL teacher, on the other hand, remarked that:

> *On and off, they look for the most efficient ways of vocabulary learning, fluency development, listening improvement, etc. On such occasions, teachers' personal experiences of language learning might be a great help to students. When it comes to general English, I always try to use the words and collocations and chunks from the reading texts in my speaking and writing tasks, so students can see how they are used. Sometimes, when they are busy writing, I also try to write my own example on the board and underline certain words such as connectors and phrases and not just single words. I also talk about context and different genres, if needed and if time allows.* (Teacher 4)

Overall, there were differences in the preferred teaching styles of EFL and EAP teachers, with EFL teachers being in favor of the Facilitator and Personal Model styles whereas EAP teachers showed more tendency for the Expert and Delegator styles.

Discussion

In this study, the teachers in both groups showed their willingness to change their roles and use different types of styles in so far as they were able to address the students' needs. No single teacher was found to be in favor of only one particular style. This finding is in accord with those of Wise (1996), Vaughn and Baker (2001), Reynolds and Townsend (2018), and SueSee et al. (2018) who

emphasized the importance of applying different strategies, methods, and styles. However, teachers should strike a balance and focus more on the styles with which they are more comfortable; otherwise, they would become "schizophrenic" (Thompson, 1997). In particular, the EFL teachers expressed their preferences for the Facilitator and Personal Model styles on the grounds of the students' communicative needs and learner autonomy so that the teachers and students would enter a negotiation or interaction from which learners would benefit considerably. This is in compliance with Benson (2010) in which teachers strongly advocated student-centered classes and were critical of those who did not take into consideration the students' decision-making power and autonomy. This is probably under the influence of more modern trends in teaching with which EFL teachers are familiar, and thus consider these trends in their classes.

This finding is also in line with that of Kassaian and Ayatollahi (2010), which revealed that teachers in proficiency-based courses (grammar and vocabulary) use personal model and facilitator styles which are typical of modern communicative classes. EFL teachers' styles were also partially in contrast with Kazemi and Soleimani's (2013) findings, saying that formal teaching styles are more commonly-used in official settings such as universities. Emphasizing the importance of a friendly and collaborative atmosphere, an EFL teacher, however, remarked that "*in certain cases where students misconstrue my facilitative role or do not take the course seriously, I try to remind them of certain rules which prevent the class from spiraling out of control*." As inferred from his/her response, this is partly due to the fact that familiarity with the requirements of learning, which conforms closely to the humanistic principles, can inform his/her decisions with regard to the appropriate style in specific moments.

Further, in the present study, it was revealed that teachers in different contexts opt for certain styles, suggesting the situatedness or context-bound nature of the styles changing with the type of the courses, context, and content of teaching (Karimi Moonaghi et al., 2010; McCollin, 2000; Rahimi & Nabilou, 2011; Wilkesmann & Lauer, 2015). Quite contrary, the findings are in conflict with findings from studies conducted by Bautista (2007) and Liu et al. (2006). Characterized by discussion and collaboration, facilitator style was the first priority for the EFL teachers, which is somehow inconsistent with the findings of McCollin (2000), reporting that collaboration is less observed in universities and other educational institutions.

The garnered data indicated that the delegator style was not frequently adopted by the EFL teachers. It may be for the reason that students do not expect their teachers to leave them alone, or the nature of the activities EFL teachers practice in their classes require them to be more in close contact with their students. These findings are in line with those of Zhang (2007) and Kassaian and Ayatollahi (2010), in which teachers found their students uninterested in being left on their own. Similarly, this finding is corroborated by the conclusions of Butler (2011) and Littlewood (2013), saying that certain challenges originating from conceptual misconceptions and mismatches between teachers' and learners' expectations in Asian contexts require teachers to take care of learners' and their parents' obsessions. Awareness of the latest trends in teaching may have kept EFL teachers alert and open to the wants of their learners, as could be seen in the teacher's comments. Another reason can be the fact that EFL teachers, in pursuit of fostering learner autonomy, play facilitative roles to scaffold their learners through two-way discussion and communication, which is corroborated by Richards and Rodgers (2014) as well.

On the other hand, EAP teachers were more associated with Expert and Delegator styles. One reason inferred from the interview findings can be the assumption that these teachers may prioritize content over language-related knowledge. Another factor in choosing such styles can be the point that they may take language elements for granted. This finding is in line with the notion that many subject specialists appear to believe that academic discourse conventions are largely self-evident and universal (Lea & Street, 1999) and are often content to simply assign grades to products without worrying too much about how the product was arrived at (Braine, 1988). Even, it might be because of their own lack of mastery of linguistic elements or lack of knowledge about the best methodology to present them or the most appropriate form of corrective feedback to provide their students with, leading them to take a more sedentary position so that the students take more responsibilities in their own learning. Yet, the possible reasons should be observed in classroom practices of the teachers.

However, with regard to EAP teachers' preference for Expert style, it can be argued that these teachers give the same amount of credence, if not more, to content as much as language elements. This finding is compatible with that of Grasha (2002) in that faculty teaching in the areas of mathematics and computer science were found to be more inclined toward Expert style. In the quantitative phase, EAP teachers also favored personal model, somewhat similar to EFL teachers.

However, in the qualitative phase, it was seen in the responses that even when they wanted to share their personal experience, it was germane to their content and specialized expertise, which was closer to the Expert style in the form of detailed knowledge rather than a personal model.

All in all, it cannot be claimed that teachers and their theoretical knowledge make all the differences. Variations can also be attributed to the teachers' prior learning experiences, personality traits, transfer of their own learning styles, or the teaching styles they were exposed to as learners. What is still unclear is that the differences in choosing styles or making other decisions might be due to the nature of the courses and even the students, not the teachers per se.

Conclusion and Implications

Considering the hallmarks of effective teaching, the present study aimed to delve deeper into a crucial factor, i.e. teaching style, which can mediate between learners' styles and teachers' practices as a result of an awareness of the current status and perceptions of the most appropriate styles. The findings of this study revealed that teachers' knowledge base can inform their decisions with regard to the styles they adopt. In particular, the distinction between EFL teachers who studied TEFL and EAP instructors who were content teachers may reignite a long-simmering debate about who should teach the EAP courses. However, this has not been the focus of the present study.

In countries where EAP has a narrower scope and is primarily focusing on the core study skills, in general, and reading skill, in particular, the importance of the teaching style becomes more accentuated. Lack of awareness of or concern about the teachers' pedagogical style might allow certain teachers to haphazardly choose their styles and rule the roost, while attempts to develop more monolithic plans may be an impressive stride in ensuring quality teaching. As a result, familiarity with the principles of teaching and the cognizance of learners' standing, needs, and process-related concerns are as important as the value EFL teachers in the present study attached to macrolinguistic (such as genre and discourse) as well as microlinguistic features (like vocabulary and grammar). Therefore, foundations and enlightenment they provide come to the central stage, no matter which field of study the practicing teachers belong to. It can be concluded that the teachers' awareness of teaching styles and teaching-related courses provide golden opportunities for them to keep abreast of the most insightful education-related contributions.

Teacher educators may benefit from the findings of this research by incorporating such constructs into their materials, tailored specifically to the needs of EAP and EFL teachers separately since each might have their own idiosyncrasies. Likewise, learners might find teacher's teaching style in line with their preferred view of learning and a compromise can be made between learning and teaching styles in light of the results, which shed light on the untrodden path. Furthermore, the teachers may find it advantageous to have more room for maneuver so that they can meet the pedagogical demands of their classrooms, relying on various teaching styles. Syllabus designers and materials developers can also benefit from the results of the study and incorporate materials tailored to the needs and styles of the teachers and in a way that those involved can find enough space to focus on the autonomy-support and facilitative tasks.

Some limitations were imposed in the present study due to a lack of a uniform education system in different universities and criteria for the teachers' employment. The data for the quantitative phase were collected from several universities across the country to have an adequate number of participants. However, the interviewees were selected only from the universities in Tehran since the teachers from other cities were not able to participate in the interview. In addition, faculty members with tenure showed less preference for taking part in the qualitative phase of the study. Thus, care should be practiced in generalizing the results of the present study. Further studies employing other methodological approaches or triangulation can shed light on the potential gaps between EFL and EAP teachers' teaching styles and their self-reported responses in the interview, survey, and their actual practices in real time classroom contexts.

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THE ASIAN ESP JOURNAL

A Description and an Implementation of an Eclectic Approach to ESP and EAP Teaching at Non-English Universities: A Greek Case Study

Ekaterini Nikolarea

University of the Aegean, Lesvos, Greece

Biodata

Ekaterini Nikolarea is an appointed ESP/EAP teacher in the School of Social Sciences at the University of the Aegean, Lesvos, Greece. Since 2000, she has been teaching ESP and EAP in the Departments of: Geography, Social Anthropology and History, Cultural Technology and Communication, Sociology and Marine Sciences at the same University. Her major research interests are: (1) Teaching ESP and EAP in a *glocalised* world; and (2) Translation and Interpreting. She has published articles on: (1) the development of academic discourse in a *glocalised* environment, discussing the interconnectedness between the concepts of interdisciplinarity and *interscientificity*; and (2) on theatre translation, the most acclaimed being "*Performability* versus *Readability*: A Historical Overview of a Theoretical Polarization in Theatre Translation" (http://translationjournal.net/journal/22theater.htm). Moreover, she was awarded major Canadian Fellowships, Prizes and a Post-Doctoral Fellowship for her contribution to Translation Studies, and has published articles on reviewed books and articles and authored two Studies Programmes for Applied Linguistics.

Email: anikolarea@geo.aegean.gr

Abstract

In a world where the global overlaps and interacts with the local, students of Social and Marine Sciences at non-English universities (which use bibliographical references written primarily in English) should be able to transfer knowledge from English into the language of instruction for

local (national) purposes and from the language of instruction into English for global (international) communication.

To respond to these new local and global demands, students of Social and Marine Sciences must develop and enhance such skills that will make them move with ease between two or more different linguistic, scientific, professional and cultural contexts. This paper describes how an eclectic approach to a two-step integrated ESP and EAP methodology has been implemented, discussing at the same time about: (1) what cognitive processes in teaching and learning ESP & EAP are involved; and (2) some underlying philosophies of teaching and learning ESP and EAP at non-English universities.

Furthermore, this paper highlights what challenges the interface of concepts such as *interdisciplinarity* and *inter-scientificity* raises for ESP/EAP instructors and students alike, who work and study in a non-English academic environment, and, finally, what learning gains the past undergraduate and post-graduate students involved in this methodology have got.

As this methodology has been used and successfully implemented at a Greek public University for nineteen years now, the writer of this paper states that this methodology can be applied to ESP and EAP courses at non-English universities and to two or more pairs of languages, scientific discourses and cultures.

Key words: eclectic approach, two-step integrated ESP and EAP methodology, interdisciplinarity, inter-scientificity

1. Present Situation – A Critical Approach

1.1. Greek Universities and ELT Programmes

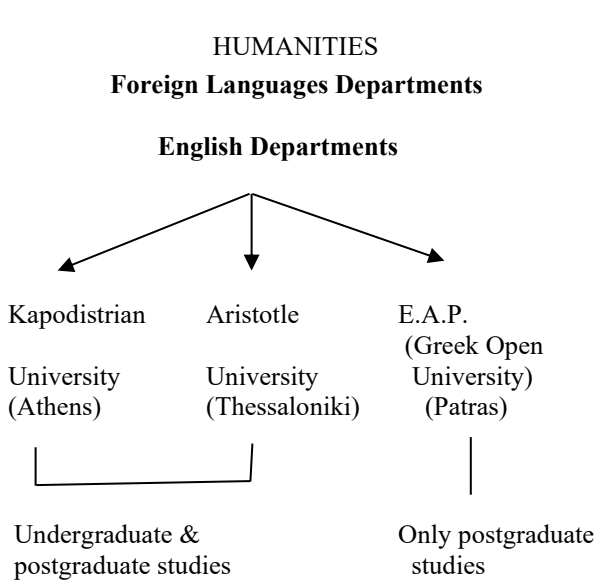
In Greece there are 19 Universities and 16-18 Technological Educational Institutions (TEI) that teach English as a **required** or **elected** subject.

Table 1: Greek Public Higher Education Institutions[1]

		Departments
Universities	19	224
TEI	18	179[2]
Total	**37**	**403**

Of all these institutions only three train ELT teachers, some of whom would pursue to become ESP/EAP instructors at one of the Greek public universities and TEIs: the National and Kapodistrian University in Athens, Aristotle University in Thessaloniki and the Hellenic Open University in Patras, as shown in Schema 1. The first two offer ELT and ESP courses in their undergraduate and postgraduate studies programmes, whereas the last has got an ELT programme in its postgraduate programme, where ESP is an option. All ELT programmes are oriented primarily towards Primary and Secondary Education, since these Education sectors are thought to be the main ELT markets in Greece.

Schema 1: INFRASTRUCTURE OF THE GREEK UNIVERSITIES
(Free Education System)



[1] These numbers are currently being changed because major mergers between Greek public universities and TEIs are under way.
[2] Eighteen (18) and 179 are the optimum numbers. The **Total** number does not include the English Departments and ELT programmes. This information is taken from *OGG* (*Official Government Gazette*) (1 April 2002; sheet No 392).

Nevertheless, there has been another ELT market in Greece that has not been addressed by the English Departments: teaching and training instructors to teach ESP/EAP so to cater for ESP/EAP needs of various Departments at other Greek public universities and TEIs.

1.2 ELT in Other Departments

If we observe what and how is taught for ELT in all Departments at Greek public Universities (Departments of Foreign Languages are exempted) and TEIs, we will surprised not by the diversity of the ELT/ESP materials but rather by the lack of homogeneity, which is due to the lack of common state policy towards ELT. As a result, each Department has developed its own policy towards ELT that has been shaped by the various attitudes institutional heads and academic staff, students and ELT instructors have towards ELT. The differing policies are reflected in recruitment requirements for ELT instructors, the time allotted on the timetable for English, classroom conditions, provision of ELT teaching materials, and the use of current ELT methodologies that we discuss 1.2.7. of the present study.

1.2.1. Attitudes towards ELT by Institutional Heads and Academic Staff

There are three attitudes towards ELT.

1. *No ELT for students who either hold a Certificate of Proficiency in English (CPE) or studied in an English university for one or two years*. The underlying assumption is that these students have "excellent" knowledge of English (*OGG*, 18 December 2002).

2. *One or two semesters of ELT (or ESP and EAP) in an eight-semester undergraduate studies programme*.

3. *Four semesters of ELT (or ESP and EAP) in an eight-semester undergraduate studies programme*.

1.2.2. Recruitment Policy

The relatively low institutional status of ELT and sometimes the lack of proper funding have fostered three different strategies of recruiting an ELT or an ESP/EAP instructor.

1. *Transferring an English teacher from the Secondary Public Education System*. In this case, the Department - through the University – explores the possibility whether a public secondary school English teacher can teach ELT to its students for one- to three-year period. The main advantage of this transfer for the Department (and, eventually, for the University) is its **cost-effectiveness**, since the salary of this English teacher is paid by the Secondary Education System, thus allowing the Department to make use of the money for other purposes.

2. *Recruiting an adjunct ELT instructor for a one-year renewable contractual position*.

3. *Selecting an ELT instructor for a public service position in a Department or a School of the respective University*.

The assumption or common practice underlying these kinds of recruitment policy is that the recruited person is either a Greek citizen or s/he knows Greek very well (C2 level of the Greek language; that is, proficiency in Greek). Therefore, it should be taken into consideration that ELT (or ESP/EAP) instructors in Greece are primarily Greek citizens and, thus, bilingual.

1.2.3. Time Allotted on the Timetable for ELT

The time allotted on the timetable for ELT is 39 hours a semester, 78 hours in a two-semester period or 156 hours in a four-semester period. The time has been estimated on the assumption that English is taught 3 hours a week for a 13-week semester.

1.2.4. Classroom Conditions

Considering the number of high school students entering Greek Universities (*OGG*, 1 April 2002) and the average student population being registered in the respective Departments, then the size of an average English class may vary between 35 and 250, thus making the ratio between an ELT instructor and students 1: 35-250. If students attended their ELT regularly, then ELT would be impossible. Nevertheless, experience at Greek public universities has shown that undergraduate students do <u>not</u> attend their classes regularly. The situation in ELT classes is far worse, since, for example, of 150 students registered in the ELT (or ESP and EAP) programme of a Department

like Social Anthropology and History only 15-20 students attend ELT systematically. Students' attendance of English classes touches upon students' attitudes towards ELT, an issue that is discussed in the next sub-section.

1.2.5. Students' Attitudes towards ELT

By this, we mean students' attitudes towards ELT that have been shaped by false assumptions and generated by institutional and personal malpractices of ELT or existing perceptions in the Greek market and society.

- "*You can't learn English at the University*." This statement is based on students' experience of being taught English only as ESP and/or EAP.

- "*I know English, so I don't need to attend the English classes*." Students who have got a First Certificate (FCE) and/or Proficiency in English (CAE or CPE) have got this kind of attitude because they believe that learning English at Greek Universities is simply learning general English.

- "*I will got the notes of the lectures from other students, I will memorise them verbatim and pass the exams in English*." This statement is a *topos* of three dynamics: (1) Students' habit of memorising verbatim extensive passages and reproducing the knowledge acquired so to pass the General Entry Exams. (2) English instructors' teaching scientific discourse through reading extensive passages and requiring their students to memorise verbatim and reproduce uncritically the knowledge they acquire; and (3) a close-ended question exam usually requires students to memorise verbatim and reproduce long passages in English without exercising their critical thinking.

1.2.6. ELT Materials

At an institutional level, ELT materials can be found in university libraries. Nevertheless, although an ELT instructor can find a very good collection of books on EFL/ELT and ESP (which can

improve students' reading strategies and study skills), s/he rarely find ESP teaching materials adapted to the needs of his/her students.[3]

Despite the fact that ELT has been taught for years now, no teaching materials (i.e. there are no reference materials used by various ELT instructors in different Departments, no University notes, terminological data bank(s) and examination(s) prepared by previous ELT instructors) are available to ELT instructors. This lack is due to: (1) the institutional infrastructure that does not make provisions for compilation, organisation of ELT teaching materials; and (2) the reluctance of ELT instructors to share their knowledge and teaching experience with other colleagues or to make their teaching materials available to other ELT instructors of the same or different University.

Although the preceding two factors offer different standpoints (an institutional and a personal), they both impede the compilation, organisation and maintainance of an ELT Data Bank in printed and/or electronic form, thus preventing ELT instructors from networking, exchanging ideas and information about their ELT/ESP teaching and, eventually, depriving the respective University of advancing ELT/ESP methodologies and improving its students' level of English (i.e. general, specialist and academic English).

1.2.7. Current ELT (ESP and EAP) Methodologies in Greece

Wherever English is taught, that is, in Departments other than those of English Studies, three main ELT Methodologies can be observed.

1. *Teaching General English*. This methodology:

   - *disregards scientific discourse written in English (ESP) and academic English (EAP)*, thus disjointing them from students' academic life;

[3] The ELT instructor in Departments like Economics and Computer Science will find plenty of monolingual (English) [Alvarez de Mon et al, 1993; Bates & Dudley-Evans, 1990; Brieger et al, 1987; Remacha Estevas, 1996] or bilingual (English and Greek) teaching materials in the Greek market [Georgatsou et al, 1987a; Georgatsou et al, 1987b; Georgatsou et al, 1988; Panourgia, 1998]. However, the ELT instructor who is recruited to teach English in Departments whose specialties are very new in the Greek academia and market (e.g. Geography, Cultural Technology and Communication, Social Anthropology and History, Sociology and Marine Sciences) has not got the same advantage.

- *gives the false impression to students* that they can excel in establishing themselves in their specialty and communicate globally when they have just FCE or CPE; and
- *reproduces Greek societal models* that rest on the assumption that a CPE is a proof of "excellent knowledge of English" (*OGG*, 18 December 2002).

2. *Teaching Scientific Discourse through Reading and Specialist Terminology*.[4]

This methodology has grown out of the need of Departments and Universities to make English more functional and relevant to their students' studies, since a great part of their working bibliography is written in English and not translated in Greek, as it is translated in Farsi in Iran (Akbarian, 2010).[5] Thus, most ELT instructors teach English by selecting and compiling excerpts or adapting 'authentic' materials written in English.

The primary tools of this methodology are two. First, students are given 'authentic' or adapted materials to read, try to comprehend and then have to respond to various text- and specialty-related questions (or as they are better known "Reading Comprehension" Questions) in writing (Bojović, 2006; González, 2012). Second, students, with the aid of their ELT instructor, try and construct a monolingual terminology (English: English) using sometimes Modern Greek equivalent terms.

What is very problematic in this ELT methodology, however, is that ELT instructors avoid incorporating general English (EFL) under the pretext of their job being <u>not</u> to teach English <u>but</u> English Terminology! The result of this approach to ELT is that, although this methodology seems to develop students' reading skills in relation to their specialty and helps them overcome the problem of terminology (at least in short terms), it does have certain serious drawbacks.

- *It <u>decontextualises</u> the scientific language and discourse from the wider linguistic, socio-political and cultural context(s) of the English language*. By focusing only on scientific texts without exploring their relation with other aspects of human life, scientific language and discourse become barren of socio-political or cultural

[4] In the present paper and context we do not use "vocabulary" – as it is usually used in the international literature (Akbanian, 2010; Bell, 2006) - but rather the more appropriate and accurate "terminology", according to Translation Studies and Terminology/Lexicography Studies (Hatim, 2001; Sager, 1990; Snell-Hornby & Pöhl, 1989).
[5] Of course, this does not mean that there are no Greek translations of international literature written in English; it rather signifies that there is a very limited number of Greek translations, especially in fields such as Geography and Marine Sciences, where 80-95% of international literature is available only in English.

significance, at a time that interrelatedness among issues as well as interdisciplinary and multidisciplinary approaches to socio-political and environmental issues are of first priority.

- *It is reading biased*, despite the fact that students have to respond to questions in writing. No effort to develop the other three skills (i.e. listening, speaking, writing) is made. Here, there is another aspect which is counterproductive. The ELT instructors who use this methodology tend to forget that they address University students who need to develop Study Skills directly related to Research Methodology and to Advanced Reading Skills (part of EAP).
- *It changes the ELT instructor into a subject specialist (or rather into a substitute of the latter*). Most of the times, the expectations that Departments and institutional heads have from an ELT instructor - that is, that s/he must be able to teach part of their specialty and scientific terminology in English - may make the ELT (or ESP/EAP) instructor assume the role of the respective subject specialist, something that never will s/he be! (Belcher, 2004).

3. *Teaching Scientific Discourse (ESP) and Academic English (EAP)*. Although this methodology seems holistic and better than the previous one, it does have two serious disadvantages.

    - *It expects from students with low or intermediate level of English to write essays or scientific reports* without offering students any alternative solution or remedy (i.e. how to develop and/or enhance their level of English).
    - *It is reading and writing biased*. No effort to develop students' listening and speaking skills is made. The ELT instructors using this sort of methodology forget that University students will need to use general and scientific English in a variety of situations and contexts and, eventually, they will have to listen to, comprehend and respond to their interlocutors in English in international conferences and other globalized contexts.

2. Paradigm Shift Observed

2.1. New Market Demands

If we now consider that the requirements set by the Heads of the Departments of the Greek public Universities are primarily how their students' *advanced reading skills* will be developed and enhanced and how their students *use English bibliographical references*, then we can also infer that all these specialists expect their students to be able to transfer the knowledge they acquire from English texts into Greek.[6] And these expectations are well founded, since there are new demands in local and global markets because of *globalisation*.

These demands presuppose that local population(s) and market(s) will be able to interact actively with other markets and different populations around the globe. Nevertheless, in order for local population(s) and market(s) to achieve that, they have to be able to communicate the knowledge they acquire from the globe to their local market(s) in their local language. At the same token, if the local market(s) and population(s) wish to understand and participate in global changes, they have to communicate their knowledge and promote their products in a global language (*lingua franca*) that nowadays is **English** (Benesch, 2001).

In other words, globalization is slowly but steadily and surely is transformed into ***glocalisation*** and the **global** into ***glocal***, where the global ("out there") and the local ("just here") coalesce and create new ways of communication and new market demands. More specifically and within the present context, ***glocalisation*** is understood as diverse types of interrelationship and interdependency between local and global linguistic and cultural processes, which reveal the impact of the global (English as *lingua franca*) upon the local (Greek, in the present paper). For the notion of ***glocal*** and ***glocalisation***, see Robertson (1994, 1995, 2004, 2006, 2013).

[6] The present local context can be generalized, should we think in the following terms: (1) wherever **Greek** denotes the language, it can be substituted by **another language of instruction** (i.e. French, German, Serbian, Russian, Arabic Chinese); (2) wherever **Greek** shows nationality, it can refer to another nationality; and (3) whenever **Greek Universities** and **Greek University students** are mentioned, they can also be taken as **Non-English Universities** and **Non-English University students**.

2.2. Students' Needs and Practices

Considering specialists' expectations and the new market demands, we must reconsider the way we teach English, if we want Greek University students fulfill these expectations and be able to function and excel in these markets.

During our ELT (i.e. ESP and EAP) classes, we have noticed that undergraduate Greek students usually transfer their knowledge acquired from English bibliographical references into Greek through a highly complex and demanding learning processes. They first *read* short or extensive specialist texts composed in English, *comprehend* them and then *transfer their acquired knowledge* in spoken and/or written Greek. Students usually transfer their acquired knowledge in two forms: (1) either as a *summary* in Greek (2) and/or as a *direct translated quotation* of an English passage into Greek. In this way, they are able to use their acquired knowledge in oral presentations and/or term papers that they do and write for their parallel subject classes. This transfer is *unidirectional* as illustrated in Figure 1.

ENGLISH → LANGUAGE OF INSTRUCTION (e.g. GREEK)

Figure 1: *Unidirectional* Move and Transfer *g: l.*

In Figure 1, English represents global scientific communication and the articulation of international goals (*g*) that are transferred into Greek – their language of instruction, which is the means of local communication and the articulation of national purposes (*l*).

During their undergraduate and postgraduate studies as well as during their career, Greek students and prospective professionals (or academics) will encounter a challenge of opposite directionality; that is, they will have to transfer their knowledge from Greek into English in order to communicate local (national) situations (*l*) to global (international) contexts (*g*). In this case, the directionality of this transfer is reversed as shown below:

LANGUAGE OF INSTRUCTION (e.g. GREEK) → ENGLISH

Figure 2: *Reverse unidirectional* Move and Transfer *l: g.*

Of course, students, if forced by circumstances, may have to move back and forth between two, at least, different linguistic, scientific and cultural systems, thus in a ***glocalised*** academic and/or business environment. Then, we talk about a *bi-directional* move and transfer as presented in Figure 3.

ENGLISH ↔ LANGUAGE OF INSTRUCTION (e.g. GREEK)

Figure 3: *Bi-directional* Move and Transfer *g: l: g*.

In all students' real and potential interactive situations – that is, within parallel subject and ELT classes and during their move between local and global (scientific) situations as presented in Figures 1-3 - *English* encounters *the language of instruction* forcing students to develop an ***evolving bilingualism*** (Nikolarea, 2014). This kind of bilingualism has been very conspicuous in a union of states like the European Union (EU), and needs to be dealt with by member-states, institutions, teachers and learners, if they want to communicate, interact and thrive in an ever increasing globalised world. Fortunately, the Council of Europe deals with this ***evolving bilingualism*** in that it has recognised that European citizens should develop and be examined upon their 'mediation' skills, because the latter allow the former to *mediate* and *move* between their own language, scientific domain and culture and those of other European citizens'; see *Common European Framework* (2001), especially Chapter 8.

3. Towards an Eclectic Approach to ELT or ESP/EAP Teaching

If we are correct in our observations about the appearance and the need of an 'evolving bilingualism' in the ever growing ***glocalised*** world of the EU, then ELT or ESP and EAP teaching at non-English universities that use bibliographical references in English should be reconsidered and new methodologies should be used, putting *very good knowledge of English and the language of instruction* (and the scientific discourse in *both languages*) in *equal footing*. Such an ELT or ESP and EAP methodology must be *eclectic* and should combine:

1. *ELT materials (proper);*

2. *Good comprehension of and proper response to 'authentic' materials written in English that EFL university students can attain by learning and practising items 3, 4, and 5 below;*

3. *Construction and maintenance of a personal bilingual (or multilingual) Terminological Data Bank (TDB) – a translator's tool that combines the use of IT and discriminatory (or contrastive) skills (Nikolarea, 2003);*

4. *Ability to summarize short and/or long English scientific passages in English and in the language of instruction (i.e. Greek);*

5. *development and enhancement of communication skills in English and in the language of instruction (i.e. Greek); and*

6. *Development of the respective academic discourse both in English and in the language of instruction (i.e. Greek), by writing essays using international bibliography written in English and/or in other languages with different writing systems from the Latin alphabet (e.g. Greek, Serbian, Russian, Arabic and Chinese),*[7] *and thus how to use mixed bibliographical references; for example, see Figures 11-13 in the present study.*

More analytically, this eclectic approach to ESP and EAP teaching is a part of a wider two-step integrated ELT methodology, which we have adjusted to the requirements of a non-English (i.e. Greek) university and caters students' needs, since we have implemented it *successfully* in Departments of the School of Social Sciences - such as Geography, Social Anthropology and History, Cultural Technology and Communication and Sociology - and in the Department of Marine Sciences – which belongs to the School of the Environment at the University of the Aegean (Lesvos, Greece), for nineteen years now.

[7] We are referring to these languages because we have had undergraduate students whose mother tongue is one of the aforementioned languages.

Furthermore, each Step can be implemented in two courses (thus in two semesters) depending on the student's prior knowledge of EFL and his/her linguistic performance in a Placement Test, as shown in Table 2.

Table 2: The Proposed Methodology, Duration of Studies and International Equivalencies

Steps	**Semesters**	**The Proposed Methodology**	**CEF (Council of Europe, E.U.)**	**CAMBRIDGE EXAMS (British Council)**	**US EXAMS**	**EDEXCEL**
One	1	Beginners 1 (ENG 1) Zero or very little knowledge of General English (EFL) & ESP	Breakthrough (A1)	Young Learners English Tests	---	---
One	2	Beginners 2 (ENG 2) Zero or very little knowledge of General English (EFL) & ESP	Waystage (A2)	KET	---	London Tests of English Level 1 (NVQ 1)
Two	3	Non-Beginners 1 (ENG 3) Intermediate knowldedge of General English (EFL) & ESP	Threshold (B1)	PET	BCCE	London Tests of English Level 2 (NVQ 2)
Two	4	Non-Beginners 2 (ENG 4) Intermediate knowldedge of General English (EFL) & ESP	Vantage (B2)	FCE (Lower)	ECCE (Lower)	London Tests of English Level 3 (NVQ 3)
Three	5	Advanced 1 (ENG 5) Good, very good knowledge of General English (EFL) & ESP	Independent (C1)	CAE (Advanced)	ALCE (Advanced)	London Tests of English Level 4 (NVQ 4)

Three	6	Advanced 2 (ENG 6) Good, very good knowledge of General English (EFL) & ESP	Good (C2)	CPE (Proficiency) IELTS	ECPE (Proficiency) TOEIC, TOEFL	London Tests of English Level 5 (NVQ 5)
Four	7	Advanced 3 (ENG 7) Excellent knowledge of General English (EFL), ESP and *EAP & Beyond I*	---	EAP	University English (ESL)	---
Four	8	Advanced 4 (ENG 8) Excellent knowledge of General English (EFL), ESP and *EAP & Beyond II*	---	EAP	Market / Business Commun-ication	---

Legend: ALCE: Advanced Level Certificate in English; **BCCE:** Basic Communication Certificate in English; **CAE:** Certificate of Advanced English (or Advanced); **CEF:** Common European Framework; **CPE:** Certificate of Proficiency in English; **EAP:** English for Academic Purposes; **ECCE:** Examination for the Certificate of Competency in English; **ECPE:** Examination for the Certificate of Proficiency in English; **EFC:** First Certificate of Cambridge; **EFL:** English as a Foreign Language; **ELT:** English Language Teaching; **ESP:** English for Specific (Special) Purposes; **IELTS:** International English Language Testing System; **KET:** Key English Test; **NVQ:** National Vocational Qualifications; **PET:** Preliminary English Test; **TOEFL:** Test of English as a Foreign Language; **TOEIC:** Test of English for International Communication.

In a nutshell, the aims and objectives of the two steps of the proposed Methodology are delineated in Section 4 below.

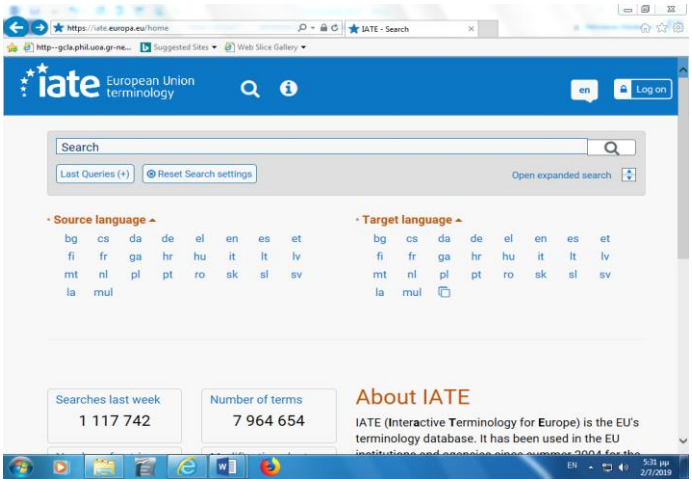
4. A Two-Levelled Eclectic Approach to ESP/EAP Teaching

4.1. Level one - ESP (or English I): knowledge management by learning how to overcome difficult terminology and by constructing a bilingual (or multilingual) domain specific terminology

Through a variety of teaching materials, in-class activities and pair/group works, this level seeks to help students acquire a sense of academic and domain specific discourse in English by:

- developing their reading and writing skills in general and domain specific English;
- helping them blend EFL and ESP with relative ease;
- showing them how to handle short and/or long and difficult passages written in scientific English (this happens progressively);
- teaching students basic research principles on their domain in English in printed and/or electronic form, by using the university library and the Internet;
- showing them how to find and use general monolingual and specialist bilingual (or multilingual) dictionaries in printed and electronic form, such as IATE, as shown is Icon 1;

Icon 1: IATE: InterActive Terminology for Europe (https://iate.europa.eu/home)



- showing them how to construct and maintain a personal bilingual (or multilingual) Terminological Data Bank (TDB) (Nikolarea, 2003 and 2005) so to be able to slowly handle difficult terminology. Figures 4, 5 and 6 below are examples from the assignments written by three students from different Departments, which were done during different academic years.

Translation of Words Related to Oceanography

English - Greek - Serbian (Cyrillic / Latin)

Barracuda (n.) (Syhyraena barracuda) - μπαρακούντα - баракуда / barakuda
Bio-cultural diversity (n.) - Βιοποικιλότητα - биолошка разноврсност / biološka raznovrsnost
Diving (n.) - κατάδυση - роњење / ronjenje
Dolphin (n.) (SCI: Delphinus) - δελφίνι - делфин / delfin
fish (n.) - ψάρι - риба / riba
Fisherman (n.) - ψαράς - риболовац / ribolovac
Gulf (n.) - κόλπος - залив / zaliv
Manta ray (n.) (lat. Mobula birostris) - σαλάχι μπάντα - манта ражa / manta raža
Marine animal (n.) - θαλάσσιο ζώο - морска животиња / morska životinja
Marine biologist (n.) - θαλάσσιος βιολόγος - поморски биолог / pomorski biolog
Mobula ray (n.) (lat. Mobula) - σαλάχι οικογενείας μοβουλιδών - мобула / mobula
Ocean (n.) - ωκεανός - океан / okean
Orca (n.) - όρκα - орка (кит убица) / orka (kit ubica)
Pelagic creatures (n.) - πλάσματα του πελάγους - морска створења / morska stvorenja
Peninsula (n.) - χερσόνησος - полуострво / poluostrvo
Scalloped hammerhead (n.) (SCI: Sphyrna lewini) - Κτενοζύγαινα (είδος σφυροκέφαλου καρχαρία) - чекићоглава ајкула / čekićoglava ajkula
Sea (n.) - θάλασσα - море / more
Sea lion (n.) (lat. Otariinae) - θαλάσσιος λέοντας - морски лав / morski lav
Shark (n.) - καρχαρίας - ајкула / ajkula
Snorkeling (n.) - κατάδυση με αναπνευσίρα - роњење са дихалицом / ronjenje sa dihalicom
Underwater (adj.) - υποθαλάσσιος/α/ο - podvodni/a/o
Waterfront (n.) - προκυμαία - изграђена обала / izgrađena obala
Whale shark (n.) (lat. Rhincodon typus) - φαλαινοκαρχαρίας - кит ајкула / kit ajkula

Figure 4: Part of a *Trilingual (English: Greek: Serbian) TDB* that was organised by Sasă Illić, a first-semester student of in the Department of Marine Sciences (2018-2019); it is illustrated with the student's consent.

ΑΓΓΛΙΚΑ	**ΕΛΛΗΝΙΚΑ**	**ΡΩΣΙΚΑ**
Gametes/Reproductive cell	Γαμέτες	Гаметы
Glow	Λάμψη	Свечение
Harbour seals (*Phoca vitulina)*	Φώκια των λιμανιών	Обыкновенный тюлень
Ingenious way	Έξυπνος τρόπος	Гениальный способ
Intensity of light	Φωτεινή ένταση	Интенсивность света
Landmarks	Σημάδι ξηράς/Παράκτιος ορισμός	Ориентир/Береговой знак
Lantern fish	Λυχναρόψαρο	Миктофовые/Светящиеся анчоусы
Life sciences	Βιοεπιστήμες/Βιολογικές επιστήμες	Науки о жизни
Lodestar	Βόρειος πολικός αστέρας/Αστέρι του Βορρά	Путеводная (Полярная) звезда

Lunar illumination	Σεληνιακός φωτισμός	Лунное освещение
Main food item	Κύριο στοιχείο διατροφής	Основной пищевой продукт
Mantel cavity		
Marine animals	Θαλάσσια ζώα	Морские животные
Marine life	Θαλάσσια ζωή	Морская жизнь
Migrate	Μεταναστεύω	Мигрирую
Milky seas (effect)	Φωταυγές δράση	Биолюминесцентный эффект
Moonlight	Σεληνόφωτο	Лунный свет
Muscular shutters		
Mutually beneficial relationship	Αμοιβαία επωφελή σχέση	Взаимовыгодные отношения

Figure 5: Part of a *Trilingual (English: Greek: Russian) TDB* that was organised by Daria Patouchova, a first-semester student of in the Department of Marine Sciences (2016-2017); it is illustrated with the student's consent.

Apocalypse	-->αποκάλυψη	-->Apokalypse
apprehension	-->προκαταβολικός φόβος	-->Furchtsamkeit
approximately	-->περίπου	-->ca.(circa)
areas	-->περιοχές	-->Bereiche
articles	-->άρθρα	-->Artikel
auxiliary system	-->βοηθητικό σύστημα	-->Hilfssystem
billed	-->τιμολογείται	-->Rechnung
binary-coded decimal	-->δυαδικά κωδικοποιημένος δεκαδικός	-->Binärcode für Dezimalziffern
bit	-->δυαδικό ψηφίο	-->Dualziffer
blinded briefly	-->τυφλή εν συντομία	--> kurzzeitig geblendet
boundary	-->όριο	-->Grenzfläche
breakdowns	-->βλάβες	-->Pannen
byte	-->ψηφιολέξη	-->Byte
cascading failures	-->αλληλοδιαδοχικές αστοχίες	-->sequentielle Ausfälle
cash register	–->ταμειακή μηχανή	-->Registrierkasse

Figure 6: Part of a *Trilingual* (English: Greek: German) TDB that was organised by Vassilis Samatidis, a first-semester student of the Department of Cultural Technology and Communication (2012-2013); it is illustrated with the student's consent.

- enhancing their research and IT skills (Nikolarea, 2005);

- showing students how to give briefings (short oral presentations) on the research they carry out in English on given (by the instructor) or pre-selected (by the students) texts;

- helping them become interlinguistic, '**inter-scientifically**' and intercultural competent (Nikolarea 2004a, 2004b and 2006);

- giving students the opportunity to summarise both in English and in Greek (as well as in one of any other languages they know well) short and long domain specific

texts with relative ease that are originally written in English and chosen by students themselves;[8] and thus

- helping them gradually develop domain specific discourse both in English and in Greek, since, when reading English references, our students need to transfer the knowledge they acquire to their respective parallel classes that are conducted in Greek.

At this level, we encourage students to find and propose their own ESP materials for their final assignments in order to become *active in their own learning* and, eventually, *independent learners* or *self-directed learners* (Bojović, 2006). In other words, we assign our students to find a specialist text written in English either in a book or onto the Internet, summarize it in English and in Greek, make an oral presentation of it in English, and organize a bilingual (English: Greek) TDB based of the proposed text.[9]

4.1.1. Inter-Scientificity and Reverse Inter-Scientificity Elaborated, and Their Methodological NOVELTY Explained

We shall now examine some specific cases of polysemy in order to illustrate that the interdisciplinarity of fields such as: Geography, Social Anthropology and History, Cultural Technology and Communication, Sociology and Marine Sciences requires that both ESP/EAP teachers and Greek undergraduate students develop 'inter-scientificity' (or 'inter-scientific competence'). At this point, we should point out that the terms 'inter-scientificity' or 'inter-scientific competence' are neologisms, which were coined and introduced by the writer of the present article, first, in 2004 (Nikolarea, 2004a) and then were discussed more thoroughly in Nikolarea (2006).

[8] The students who constructed the TDBs shown in Figures 4, 5 and 6 also wrote summaries of the text in English, Greek and their mother tongue; that is, in Serbian, Russian and German respectively.

[9] We usually give students the opportunity to pass the ESP and/or EAP class *either* by participating in in-class activities and homeworks (40% of the total grade) as well as in the final assignment (60% of the total grade) that they achieve during the semester *or* by taking the final exam *or* by doing both. Regarding the last case, it works as follows: depending on students' performance during the semester, we allow them to participate in both the semester's activities and the final exam *either* when they have not got enough points to pass the class *or* when they wish to improve their final grade.

Although the second compound of the term is 'scientificity', this term is not used in a positivistic way but rather to indicate the application of linguistic methods and principles *either* to overcome problems of 'untranslatability' of scientific or domain-specific terms *or* to solve the problem of linguistic asymmetries between a pair of different linguistically scientific fields – for example, English: Greek, English: French, Arabic: Greek etc. The problems of 'untranslatability' or linguistic asymmetries are usually created by the *polysemy* of scientific discourse in a ***glocalised*** context – that is, when the global meets and interacts with the local. They are also common issues in Translation Studies that should be dealt with by translation scholars and practitioners (Maginot, 2015), and solution should be found if 'scientific' communication between two different linguistically scientific discourses (thus, '**inter-**scientific') can be achieved. Nevertheless, what is common practice in Translation Studies is almost totally unknown in ESP/EAP teaching at non-English (and Greek) universities, due to the fact that ESP/EAP teachers are not trained (as translation practitioners are) to recognise these issues.

Therefore, in an ESP/EAP non-English teaching context, 'inter-scientificity' is the ability shown by scientists, teachers and students to move *with ease* between at least two different linguistically scientific contexts and comprehend 'inter-scientific' differences not only across a variety of disciplines but also across different linguistic systems and cultures. This indicates that (social) scientists *do not decontextualise* the scientific discourse from its respective linguistic, socio-political and cultural context(s). On the contrary, *they can explore* the interrelation of scientific language and discourse with other aspects of human life, at a time that interrelatedness among issues as well as interdisciplinary and multidisciplinary approaches to socio-political and environmental issues are of first priority for Social, Environmental and Marine Scientists. In the same token, *inter-scientifically competent is the student, the ESP/EAP instructor and the scientist alike who can distinguish between various readings of a polysemous terminological entity*.

To illustrate what 'inter-scientific' competence or 'inter-scientificity' means in actual use and how complex and challenging it is in ESP and EAP teaching at Greek universities – and in any non-English university that uses authentic teaching materials written in English, we offer two examples of 'inter-scientificity' in Figures 7 and 8 and three examples of 'reverse 'inter-scientificity' 'in Figures 9 and 10 and their explication.

4.1.1.1. Examples of 'Inter-Scientificity' [English: Greek]

In Figure 7 we see that, whereas in English one single word or the lexeme 'Fieldwork' denotes field research being conducted outside of a laboratory, library or workplace setting, in Greek two different words, lexemes or polysemes are used; that is: (1) *Επιτόπια έρευνα*, which literally means "Research *in situ*" and denotes social scientists' field research (human geographers included), such as informal interviews, direct observation, participation in the life of a group etc; and (2) *Έρευνα πεδίου*, which literaly means "Research in the field, out in the environment" and denotes environmental and marine scientists, biologists and other scientists (physical geographers included).

Fieldwork: (1) *Επιτόπια έρευνα* (lit. Research *in situ* that is used in fields of social sciences such as (*human) geography*, anthropology and sociology). (2) *Έρευνα πεδίου* (lit. research in the field, out in the environment] (used in *physical geography*, environmental sciences, biology, marine sciences).

Figure 7: Greek Polysemes of Fieldwork

So, students of social sciences and environmental and marine sciences alike should, first, know that 'fieldwork', when used in different linguistic and domain specific environments, has two equivalents in Greek (Figure 7, (1) and (2)) and, second, they should identify which meaning this term acquires in the given scientific environment; that is, if 'fieldwork' is used either in social sciences (Figure 7 (1)) or in environmental and marine sciences (Figure 7 (2)). Greek students' (or other non-English readers') ability to distinguish the difference and then choose the right lexeme and transfer it to their language of instruction (i.e. Greek) appropriately is an issue of inter-scientific competence or inter-scientificity. At this point, we should mention that this issue becomes more poignant in the discipline of Geography because when Geography students deal with English texts related to Human Geography, 'fieldwork' acquires the meaning of Figure 7, (1), whereas, when they deal with English specialist texts related to Physical Geography and the Environment, 'fieldwork' acquires the meaning of Figure 7, (2). If Greek geography students (or Greek geographers, in general) render 'fieldwork' wrongly in Greek, then they could be totally misunderstood by their Greek audience or their readership!

In Figure 8 we see that, whereas in English one single word or the lexeme 'Graphic representation' is used in a variety of subject fields, such as Computer Science, Cartography, Mathematics, and Statistics, in Greek it is rendered in two different ways according to the scientific field it refers to. One expression is used in Computer Science (ΠΛΗΡΟΦ) and Cartography (ΧΑΡΤ) (Figure 8, 1), and another in Mathematics (ΜΑΘ) and Statistics (ΣΤΑΤ) (Figure 8, 2). So if Greek students of domains such as Geography, Mathematics, Computer Science, Informatics, Statistics and Cultural Technology and Communication are unaware of these differences, there may be a breakdown in communication with their instructors who will either misunderstand or fail to understand what the student mean. The issue of inter-scientific competence or inter-scientificity becomes even more poignant if we consider that Geography, Cartography, Informatics and Statistics are some of the core subjects in the Undergraduate Studies Programme in the Departments of Geography in Greece.

Graphic representation: (1) *Γραφική απεικόνιση, αναπαράσταση.* (ΠΛΗΡΟΦ, ΧΑΡΤ). (2) *Γραφική παράσταση.* (ΜΑΘ, ΣΤΑΤ).

Figure 8: Polysemes of Graphic Representation.

4.1.1.2. Examples of 'Reverse Inter-Scientificity' [Greek: English]

Having discussed that, we should mention three examples of 'reverse inter-scientificity' or 'reverse inter-scientific competence', that is, Greek terms whose English equivalents confuse Greek students, when using them in essays they either write for our EAP classes,[10] different Erasmus schemes, post-graduate classes in an English-speaking country, or when they present their research in an international conference whose working language is English.

Όργανο: (1) *Organ* (a) an organ of a human body (general meaning and a medical term); (b) 'a means of enforcement' in the sentence "the police force is an organ of the government; and (c) a big church musical instrument. (2) *Instrument*: an apparatus, an appliance (general meaning and a scientific term).

Figure 9: English Polysemes of Όργανο.

[10] For further discussion of this issue, see 4.2.1.1.

In contrast with Figures 7 and 8, we see that Figure 9 presents one single Greek word or lexeme 'όργανο' which can be rendered in at least two different English lexemes or polysemes, depending on the linguistic, domain specific and cultural context. When writing a paper in English either to present it in an international conference or to have it published, our students and Greek colleagues[11] respectively usually use the lexeme 'organ' instead of 'instrument'; that is, they write 'measurement organs' [sic] instead of 'measurement instruments', with the consequence of a total breakdown of communication.

Another notorious example of 'reverse inter-scientificity' is when Greek university students, ESP/EAP instructors or scientists use the polyseme 'theme' for θέμα instead of the polyseme 'topic', as shown in Figure 10. When Greek students, ESP/EAP instructors and scientists alike are not aware of the existence of the three different English terms for the single Greek term θέμα or, even worse, they know that there are three different English terms for each of them but they do not know how and where to use them, they are led to serious problems of scientific misunderstanding and breakdown of communication due to the fact that the three English polysemes of θέμα are not interchangeable. A linguistic explanation of this pitfall may lay in the fact that they translate literally the Greek term θέμα into the English term 'theme', since the latter cognates from the former. In Translation Studies, these similar but not interchangeable terms are called *faux amis* or *false friends*[12] (Mounin, 1974, p. 139; Bell, 2006).

Θέμα: (1) *Topic* of an essay. (2) *Theme*, as in 'thematic units'. (3) *Issue*, as in "there is an issue here".

Figure 10: English Polysemes of Θέμα.

Thus, during our ESP and EAP classes we try to make our students aware of the difference in scientific use of certain English terms in Greek or of certain Greek terms in English, which is *a novel approach to ESP and EAP teaching*, so that they become *independent learners* or *self-directed learners* (Bojović, 2006) and incorporate this knowledge in papers they present in

[11] This assessment comes from our English language editing of some of our Greek colleagues' papers for international publication.

[12] *Faux amis* or *false friends* are considered to be a word or expression in one language that, because it resembles one in another language, is often wrongly taken to have the same meaning.

international conferences or when they want to follow an academic/professional career in an English-speaking country.

4.1.1.3. Knowledge Management and Independent Learning Combined

In order to help our students become 'inter-scientific' competent and thus *independent learners*, we show them not only how to find terms in bilingual or multilingual scientific dictionaries (i.e. IATE, Icon 1) but also how to decide which term (lexeme/polyseme) is the most appropriate for the given domain specific (con)text by using monolingual (in this case English) dictionaries (e.g. printed, electronic and/or on-line English dictionaries). After our students have done their own research on monolingual dictionaries and have chosen the most appropriate term, then we show them how to retain this knowledge by storing it electronically; that is, they learn how to construct their own bilingual TDB (Figures 4, 5 and 6; see also Nikolarea 2003, 2004 a and b, 2005) and manage their knowledge of domain specific terminology. It is exactly this kind of knowledge management combined with the development of inter-scientificcompetence or inter-scientificity that helps our students become *independent learners* and develop domain specific scientific discourse both in English and in Greek, an issue we are to discuss about in 4.2. of this study.

4.1.2. Inter-Scientificity and Independent Learning

At this point, we should mention that, although there are references to this issue (Akbarian, 2010; Reguzzoni, 2006, 13-16; Nikolarea 2004a and b, 2006) in the international literature and the need of non-English university students to participate in international conference using English as a medium of communication (Belcher, 2004; Benesch, 2001), there has been discussion about <u>neither</u> how non-English university students (both undergraduate and post-graduate) can deal with the use of highly advanced terminology and how they can incorporate it in their own academic discourse <u>nor</u> how an ESP/EAP instructor can handle this terminology and teach it to his/her students. The false assumption for the former case is that students always use a translator (Akbarian, 2010), something that may be partly true but hinders students from becoming *independent learners*. In the latter case, the assumption is that the ESP/EAP instructor will ask for a specialist's help and solves his/her learning problem (González, 2012; Belcher, 2004). How false this assumption is we elaborated in our most recent publication (Nikolarea 2017), where we discuss what we did when a specialist colleague in the Department of Marine Sciences claimed totally

IGNORANT as to how "waves of translation" can be rendered in Greek. Consequently, we had to take action, carried out a thorough research and find the Greek equivalent. Through this experience, we came to realise, first, that our previous specialisation in Translation Studies came to our help, and, second, despite the fact that we are supposedly ESP/EAP instructors, we ourselves should become learners (i.e. put ourselves in our students' shoes) and become *independent learners* or *self-directed learners*, as Bojović (2006) claims.

4.2. Level Two - EAP (or English II): Knowledge Management by Developing Advanced Listening, Speaking, Reading and Writing Skills through Essay Writing

Through a variety of teaching materials, in-class activities, pair/group works and seminars, this course seeks to help our students develop advanced academic skills, as described in the sub-sections below, in two languages: English and Greek, since our students need them if they want to advance their studies or progress in their own career in the field of studies they have chosen.

4.2.1. Development of Advanced Listening, Speaking, Reading and Writing Skills

During our EAP classes, we let our students listen to short university lectures delivered by a variety of English nationals after we have kindly asked them to take notes (the way they feel more comfortable with) in English. We then ask them to speak about what they have listened to, and, finally, we give them some time to write a summary of what they have listened to in English, as an in-class activity. We repeat this in-class activity at least twice or three times a semester.

Furthermore, in order to help our students acquire and develop their academic discourse in English orally and in writing, we encourage them to find materials in the library and/or onto the Internet, propose the topic of their own essay and then write an academic essay together with a CV and a Cover Letter, thus, showing their academic independence.

At this point we should clarify that writing an academic essay and a CV together with a Cover Letter is part of the final assignment and one of the assessment criteria for students' exception from the final exams. This final assignment includes: (1) a fully developed essay in English; the topic of this essay is selected (with the instructor's aid, when needed) and searched for by the students; (2) an oral presentation of the essay in English; and (3) writing a Cover Letter and a CV also in English, whose teaching methodologies we are elaborating in the following sub-sections.

4.2.1.1. Essay Writing

When we start teaching the thematic unit 'Essay Writing', we provide our students with some general guidelines for essay writing in electronic – and sometimes in printed - form and discuss thoroughly in the classroom what steps they should take, especially if they decide to write an essay as a final assignment, with which they can be exempted from the final exams.

Since we expect our students to choose their own topic, we advise them to jot down their initial thoughts of their topic as brainstorm. Then we discuss in the classroom whether the various topics are manageable or not and how our students can proceed with their own research.

We first make clear to our students that they should make advanced search in the library and onto the Internet for bibliographical references in the languages they can use (e.g. English, Greek, Russian, Arabic, Chinese etc.). Then they should read widely and critically the materials they find in order to assess them. We also teach them two of the most effective techniques for reading for academic purposes: skimming and scanning (Wallace, 2004; Kneele, 2003) On the one hand, skimming makes use of the paragraph as the basic unit underlying the structure of argument. On the other hand, scanning makes them focus and work on the specific issues of their paper. While teaching our students how to skim a book and/or an electronic article, we show them (1) how skimming 'The Table of Contents' and the 'Index' of a book can help them find the material they search for; and (2) how the command 'search and find' in the PC menu can help them skim an electronic article and understand whether it is appropriate for their essay writing.

However, during this kind of search our students usually come across with difficult scientific texts that raise issues of terminology, general understanding and inter-scientificity, as discussed in 4.1.1 of the present paper. In order for our students to overcome the aforementioned issues, we discuss with them once more where to find and how to use electronic and/or printed monolingual and bilingual (multilingual) electronic and/or on line dictionaries (e.g. Cambridge dictionary on line, IATE; Icon 1), engines of machine translation (e.g. Google translate).

Once our students have found the appropriate materials, they bring them to the classroom. Then, we all discuss how they can plan and draft their essay and use the bibliographical references. During these discussions the following issues are usually raised as how our students can:

(1) distinguish between personal writing style and technical styles (e.g. Harvard Style, Chicago Style, APA Style, MLA Style);

(2) find one of the technical styles, decode it and then recode it into their essay;

(3) avoid plagiarism by paraphrasing, rephrasing and summarising important parts of bibliographical references (that is the reason why we train our students how to summarise short and/or long passages in our ESP classes; see 4.1. above);

(4) cite short and long passages from international references (i.e. from English, Greek, French, German, Russian, Ukrainian, Arabic, Chinese etc.); and how to

(5) compile international references, especially when these references are written in writing systems different from that of Latin one (e.g. Greek, Cyrillic, Arabic and Chinese writing systems).

4.2.1.1. (1) Personal Writing Style and Technical Styles

When our students are ready to start writing their own essay, we make sure that they know that there is a fundamental distinction between **personal writing style** and **technical style** that they may use while citing and writing their bibliographical references.

During our lectures, we usually become aware that our students do not know the difference between personal writing style and technical style, and usually confuse the terms - despite the fact that they may have written essays in many of their parallel classes. Therefore, we find it necessary to draw this distinction and discuss with them about the variety of technical styles, such as Chicago, APA, MLA, Harvard, how to find them onto the Internet, how to decode them and recode them in their essays.

Furthermore, we organize some in-class activities during which we give them some actual bibliographical references and ask them to write the bibliographical references based on one of the aforementioned technical styles. Initially, our students find the process insidious, but only when they start writing their own bibliographical references for their essay, they understand the importance of this in-class activity.

4.2.1.1. (2) Avoiding Plagiarism

During our classes, we define what plagiarism is, what issues it raises when practised and how destructive it is for students (and writers in general) due to the fact that it deprives them from developing their own creative and academic writing skills. We then mention how our students can avoid plagiarizing; that is, by paraphrasing, rephrasing and/or summarising in their own words important parts of bibliographical references. At this point, our students fully realize how important it is for them to know how to summarize an English scientific text in the English language, something that they practised during our ESP classes, as discussed in 4.1. in the present study.

Of course, following all these steps, our students come across once again with issues of terminology and inter-scientificity but, because they are aware of these issues and know how to overcome them (as discussed in 4.1.1.), they are not so afraid of expressing themselves in their own words in English, thus developing their domain-specific discourse in English and, most importantly, avoiding plagiarism.

4.2.1.1. (3) Citing Short and Long Passages Written in Languages other than English – A NOVELTY

Within this teaching and learning context, we present to our students when and/or why they cite short and/or long passages in their own essay. Because we allow students to use international bibliographical references - that is, texts written not only in English but also in other languages and other writing systems (e.g. Greek, German, Russian, Arabic, Chinese), we discuss thoroughly how they can do that.

According to the international Translation Studies (and Comparative Literature) standards, there are at least two different ways to make a citation when the text is written in a different language from that the essay is. The **first way** is to insert the sentence or the text in the original language and then to insert a footnote or an endnote with the English translation. If there is an official translation of the text in English, we insert the bibliographical references as in-text references beside the translation of the citation in our essay; these in-text references can be a footnote, an endnote or a (bracketed in-text reference), according to the technical style we follow. Nevertheless,

if the original text is not translated into English and we are the translators of the passage, we write as a footnote or as an endnote: "*this translation is mine unless otherwise indicated*".

The second way to cite from a text written in different language is to insert the translated sentence or the text, and we then insert a footnote, an endnote or a (bracketed in-text reference) where we indicate whether the translation we provide in the main body of our essay is part of an existing English translation of the text or it is our own translation. In the latter case, we should indicate that: "*this translation is ours unless otherwise indicated*".

4.2.1.1. (4) Compiling Mixed International References (i.e. written in different writing systems) – A NOVELTY

As we mentioned earlier, in a ***glocalized*** world where the local (e.g. Greek) meets and interacts with the global (English), it is impossible for our students not to use mixed bibliographical references; that is, references written not only in English but also in another language (Greek or other languages, such as Russian and Arabic, in their case) they know and can handle.

There would not have been any issue, if all the bibliographical references that our students use had been written in English or in any writing system that uses the Latin alphabet (e.g. French, German etc.). Nevertheless, because our students live in a Greek scientific environment and, consequently, use Greek bibliographical references (and some of them Serbian, Russian, Arabic and Chinese, because of their origins), we show them how to organize mixed bibliographical references when they are addressed to an international readership.

According to the international Translation Studies (and Comparative Literature) standards, there are at least three different ways to mixed bibliographical references when addressed to international readership.

Example of the first two ways are shown in Figures 11 and 12, when our students have Greek bibliographical references. On the one hand, in Figure 11 the names of the authors and publishing houses are transliterated in Latin, while the rest of information is translated into English. The original Greek publication is presented in [brackets].

Appendix 1: Examples of Literature on the EMU and Euro

Chrysolora, E. EMU: The path is opening. Ta Nea. [Χρυσολωρά, Ε. ΟΝΕ: Ανοίγει ο δρόμος. Τα Νέα] [30/09/99] at http://ta-nea.dolnet.gr/

Chrysolora, E. They spread the carpet for us In Ta Nea. [Χρυσολωρά, Ε. Μας έστρωσαν το χαλί. Στα Νέα] [31/03/99] at http://ta-nea.dolnet.gr/

Chrysolora, E., & Antonakos, K. European obstacles for the convergence. Ta Nea. [Χρυσολωρά, Ε, & Αντωνάκος, Κ. Ευρωπαϊκά εμπόδια για τη σύγκλιση. Στα Νέα] [29/05/99] at http://ta-nea.dolnet.gr/

Consistency and perspective. The traces of a year – by the Observer In Ekfrasi 21 (December 1999) [Συνέπεια και προοπτική: Τα αποτυπώματα μιας χρονιάς του Παρατηρητή] (pp. 4-5).

Figure 11: Greek Bibliographical References for an International Readership (cited from Nikolarea, 2007, p. 149)

On the other hand, in Figure 12 bibliographical references are arranged alphabetically based on the Greek and English alphabet. What is shown in Figure 12 was established for the 1st International Conference: "Language in a Changing World" that was organized by the Language Center of University of Athens and its proceedings were published in 2008 (Nikolarea, 2008). Since then, all the international conferences organized by Greek Universities follow these guidelines to arrange mixed bibliographical references in English and Greek.

Α, Β, Γ/C, Δ/D, Ε, Ζζ, F, G, Η, Θ, I, J, Κ, Λ/L, Μ, Ν, Ξ, Ο, Π/P, Q, P/R, Σ/S, Τ, Υ, Φ, U, V, W, X, Y, Zz, Ψ, Ω.

Figure 12: Greek Bibliographical References for an International Readership

An example of the third way is shown in Figure 13, when our students have Russian and/or Ukrainian bibliographical references, thus references written in the Cyrillic alphabet - a different writing system from the Latin one. The original version appears first in Russian and Ukrainian, then there is a total transliteration of the names, publication and publishing houses in Latin and, finally, there is an English version of the original publication.

Анна Павловская, 2005, *Англия и Англичане,* Издательство МГУ, Москва. [anna pavlovskaya, anglia i anglichane, izdatelstvo MGY, Moskva]

- Anna Pavlovskaya, 2005 England and the English, Moscow University Press.

Марина Абрютина, 2010, *Экономический анализ товарного рынка и торговой деятельности ,* Дело и Сервис, Москва. [marina abrutina, ekonomicheskiy analiz tovarnogo rinka i torgovoi deyatelnosti, delo i servis, moskva]

(Marina Abrutina, *Economic analysis of the commodity market and trade activities,* Moscow) Володимир Голобуцький, 1994, *Запорозьке козацтво,* Київ.[volodimir golobutskiy, zaporozke kozatstvo, kiev]

(Volodimir Golobutskiy*, Zaporizhzhya Cossacks,* Kiev) [A book written in Ukrainian].

Figure 13: Russian and Ukrainian Bibliographical References for an International Readership (by Polina Chereshko, a Ukrainian student in the Department of Social Anthropology and History; the present material is illustrated with the student's consent)

During our classes, we emphasize that students - who can use bibliographical references in languages that do not use the Latin alphabet – should use either one of the above Figures for Greek bibliographical references or Figures 11 or 13 for Russian, Serbian or Chinese bibliographical references as a sample for the bibliographical references of their essay that may write for our EAP class. They may also use the aforementioned Figures when they find themselves in an Erasmus scheme or further their studies in an English-speaking country and they wish to use bibliographical references written in a different writing system from that of the Latin alphabet.

Knowledge of how to compile and organize **mixed** bibliographical references is *a novelty* in our EAP teaching *because it helps Greek (or other non-English) students present sources that are written in a different writing system in such a way that, first, the original language in which the sources are written is of an equal footing with international references written in English and, second, foreign bibliographical references can be understood by and communicated to a wider international readership that may not know the original language in which the sources are written*.

4.2.1.2. Oral Presentation of the Essay in English

In our EAP classes – as in our ESP ones (see 4.1.), we prepare our students how to make a 5-7 minute oral presentation of the essay they have chosen to write about. We explain to them that they may use any audio-visual materials they wish or they may speak from their notes, as long as they have an eye contact with their audience. We also show them how to plan, structure, prepare and present their oral presentations, and refer to the *dos* and *don'ts* of oral presentations.

In the beginning of their presentation, our students usually feel nervous – especially because they deliver a short oral presentation in English. Nevertheless, they gradually calm down, get focused on what they do and, finally, are able to answer questions posed by their audience (fellow-students and the instructor included). *The novelty of this part of the eclectic approach to our EAP classes lies in the fact that for the first time our students are made to use domain specific discourse in English orally and make themselves understood.*

4.2.1.3. Writing a CV and a Cover Letter for Erasmus Schemes or Job Hunting: Discussing about Cultural Differences in CV and Cover Letter Writing – A NOVELTY

Because our students will need to write CV in English when applying for the Erasmus exchange programme, we have decided to integrate a thematic unit of "Writing a CV and a Cover Letter" in our EAP classes. *The novelty of this thematic unit lies in the fact cultural differences in writing a CV and a Cover Letter between Greek and English are discussed thoroughly*, since some of our students are going to follow one of the Erasmus schemes or post-graduate studies in an English-speaking country.

We first start with the underlying philosophy in writing a CV; that is, (1) they should select the right CV to highlight their skills and experiences - we give them a variety of samples of CVs: a Traditional, an Academic, a Skills-based and a Teaching CV as well as a Technical CV for IT jobs. We then discuss with our students how important it is to create a 'Master copy of CV' and then customize it according to the requirements posed by the employer or the institution they apply to.

Furthermore, we try to make our students aware of the existing *cultural differences* between writing a CV for English and Greek readership (i.e. prospective employers, prospective departments for an Erasmus scheme or Master's or Ph.D. programmes). Despite the fact that our

students are aware of how Greeks write and present a CV – for example, the Greeks write their CVs as very long letters, they have hard time – at least, in the beginning of this thematic unit – to understand how and why the English-speaking people write and present their CV as they do. At this point, we discuss *basic cultural differences* thoroughly.

During our classes, we ask our students to write a CV in English as homework and bring it to the classroom during the next class, when we discuss in detail students' queries and give them some advice of how to improve their CV.

After we have discussed with our students how to write and present a CV, we get into how to write a Cover Letter. We emphasize that a cover letter should always accompany their CV unless they are told otherwise. Nevertheless, at this point we emphasize the existing *basic cultural differences* between the English and Greek lay out of a cover letter; that is, the Greek lay out of a letter is the exact opposite to its English counterpart. Even the position of (personal) signature differs. Whereas in Greek it appears in the centre or on the right side of the page, in English it should appear on the left side of the page.

Having made sure that our students understand the cultural differences in laying out a cover letter between English and Greek, we go back to the issue of how important a cover letter is. We stress that a cover letter allows them to personalize their application and highlight key areas of their CV in more depth. We then advise them to keep their cover letter short; while they make sure that it emphasizes their suitability for the specific post or programme they apply for. We then show them how to write a cover letter, by providing them with a great variety of samples and discuss with them how a cover letter can be communicable.

During these classes, we ask our students to write a cover letter as homework and bring it to the classroom in the next class, when we discuss in detail students' queries and give them some advice of how to improve their cover letter.

At this point, we should mention that writing a CV and a Cover Letter in English is part of the final assignment (together with writing and presenting an essay) for those students who participate in our classes systematically and want to be exempted from the final exams, as mentioned earlier (for assessment criteria see footnote 10 of the present study).

5. Discussion: Student Community Learning Gains from this Approach

In order to find out whether and how our eclectic approach to ESP/EAP teaching has been helpful for our former undergraduate students over time, we carried a three-year survey (March 2015-February 2018) by sending them a Questionnaire (see APPENDIX), asking them: (1) whether they found ESP and EAP classes helpful and why; (2) whether they are still using the knowledge acquired in those classes and in what scheme; (3) whether they follow a post-graduate degree and where; and (4) whether they follow an academic and/or professional career abroad.

Of 8,800 former undergraduate students of ours, 4,500 students responded to the survey. They all claimed that our ESP and EAP classes were very helpful, especially how to search, find and store electronically difficult terminology (TDB; see 4.1) and how to write a CV both in English and in Greek (see 4.2.1.3).

Of these students,

(1) 75 (50 women and 25 men) followed an Erasmus exchange programme;

(2) 50 (20 women and 30 men) followed an Erasmus placement and a work placement abroad;

(3) 320 (140 women and 180 men) followed a Master's and/or Ph.D. degree in Greece;

(4) 340 (190 women and 150 men) followed a Master's and/or Ph.D. degree in an English-speaking country (i.e. the U.K., the U.S.A., Canada and Australia); and

(5) 15 (5 women and 10 men) are following an academic or professional abroad.

More specifically, all former undergraduate students who followed the **Erasmus exchange programme** in other European countries (e.g. the U.K., German, Spain, Portugal etc.) successfully completed that programme, and claimed that the knowledge of how to summarize a text in English (i.e. part of our ESP classes) helped them avoid plagiarism when writing the required essay in English (i.e. part of our EAP teaching). Furthermore, having made oral presentations in English in our ESP and EAP classes helped them present their research material with success in those Erasmus programmes.

All our undergraduate students who followed an **Erasmus placement** or **one-year work placement**, they did it in the UK, Germany and other European countries, such as Norway, France, Spain, where scientific English was the working language. They finished their placement successfully, asserting that what they had learned in our ESP and EAP classes – that is, how to understand difficult terminology, how to write an essay in English, how to compile mixed bibliography, how to make oral presentations in English and how to present themselves in English through CVs – helped them greatly.

All our students who followed a **Master's and/or Ph.D. degree in Greece** found our ESP and EAP classes, helpful one way or the other. More specifically, they are thankful of how to: (1) deal with and find difficult terminology and thus understanding bibliographical references written in English; (2) write essays in general; and how to (3) compile and organize mixed bibliography.

All our students who followed **a Master's or a Ph.D. degree in an English-speaking country** (i.e. the UK, the USA, Canada and Australia), and those who are now following **academic and/or professional careers** claimed that what they learned in our ESP and EAP classes - especially how to handle difficult terminology, how to handle reverse inter-scientificity (see 4.1.1., especially Figures 7-9) when writing papers for international conferences, and how to compile mixed bibliographies for international publications (see 4.2.1.1.(4), especially Figures 11 and 13) - have been "*nuggets of gold*" for them, since they used (and are still using) the knowledge they acquired in those classes in their academic and/or professional life.

6. General Remarks and Conclusions

6.1. Applicability, Learning Outcomes and Usability by a Wider Non-English Student Community

From our experience in having implemented this Methodology to different Departments and Programmes for eithteen years now, we can claim that it can be successfully implemented in *any pair or set of languages* (i.e. English: Modern Greek; English: German; English: Russian; English: Serbian, English: Arabic etc.) and can be of a wider scope and application.

6.1.1. Summarising in English and in the Language of Instruction (in Greek or in any Other Language)

When ESP/EAP is taught in Departments at non-English Universities that use international bibliographical references written primarily in English and the language of instruction is different from English, it is a good idea that students summarise 'authentic' texts (written in English) both in English and the language of instruction. The usability of this methodology is two-fold.

First, by summarising an English 'authentic' scientific text in English, non-English university students have the opportunity to develop their domain-specific discourse by using the appropriate terminology in the appropriate (con)text and by imitating (thus internalizing) some structures of the specific discourse (Belcher, 2004; Bojović, 2006). This method helps students not only develop but also enhance domain-specific discourse which they can use in different scientific contexts, such as international conferences, various Erasmus schemes, international Master's and Ph.D. programmes using English as medium of instruction, or following professional or academic career abroad, as we have discussed in Section 5 of this study.

Second, by summarising an English 'authentic' scientific text in the language of instruction, students become aware of 'inter-scientificity' issues, as discussed in 4.1.1. of this study, learn how to render difficult English scientific terms into their language of instruction and, eventually, they use these terms in their essays they have to write for their parallel classes, which are done in a language different from English. In this way, students become *independent learners* or *self-directed learners* (Bojović, 2006) who can use the knowledge they acquire appropriately, enhance their scientific discourse in the language of instruction and, eventually, can be successful in following a Master's or a Ph.D. programme and/or a professional/academic career where the language of instruction is used.

6.1.2. Constructing and Managing a Bilingual or Multilingual Terminological Data Bank (a TDB)

As we discussed in Nikolarea 2003, 2004b, the functionality of this translation method is multileveled and the gains the students get are both short- and long-term ones. In a nutshell, in constructing and maintaining a TDB in an electronic form, students get a *mnemonic device* and/or a *knowledge management* tool which helps them: (1) develop and enhance their research skills and another kind of computer literacy; (2) become 'inter-scientific' and intercultural competent; and (3) acquire a *research tool for life* and become *independent learners* or *self-directed learners*

(Bojović, (2006) in a ***glocalized*** academic environment, who know how to handle difficult terminology and domain-specific discourse in between two or more different linguistic contexts. They feel and move *with ease* between two linguistic, scientific and cultural systems, as we have tried to elaborate and show in the present study and as our past undergraduate students claimed in our three-year survey we conducted, as shown in Section 5 of this study.

6.1.3. Writing Essays, CVs and Cover Letters in English

How important for non-English university students – who do not use English as a medium of communication and instruction – to write essays, CVs and Cover Letters in English not only in short- but also in long-terms is shown primarily by the three-year survey we conducted.

When taking EAP classes, our undergraduate students are not so happy with acquiring so much knowledge and being made to write their "own" essays (i.e. without plagiarizing) and CVs, due to the fact that they are mostly second-semester students and thus inexperienced in academic discourse and writing – so they cannot realise the learning gains and benefits of the methodology immediately. Only when they apply for Erasmus Exchange Schemes, and they have to submit a CV and a Cover Letter in English, they fully realise the knowledge they have acquired. Furthermore, when they go to different EU countries as Erasmus exchange students, they have to use what they have learned in our EAP classes, since they have to present and write essays in English in order to obtain ECTS.

As our three-year survey has shown in Section 5, 700 of our former undergraduate students - when pursuing any of the Erasmus Exchange Schemes, a post-graduate degree in Greek or in an English-speaking country or even a professional/academic career - found that our EAP programme (combined with the ESP programme) is a beneficial "knowledge tool" for life that helps them become *independent learners* who are not afraid of difficult linguistically and culturally scientific contexts.

6.2. Factors of Success

Nevertheless, the *success* of this ELT or ESP/EAP Methodology depends on three factors, which are all of equal importance: the educational institution (i.e. the respective University), the EFL/ESP/EAP instructor and the non-English University students.

On the one hand, the ability of an *educational institution* to provide teaching facilities (i.e. properly equipped classrooms, computer laboratories) is extremely crucial for ESP/EAP instructors' teaching and the development of students' research skills and their academic independence. On the other hand, *English instructors'* training, knowledge (computer literacy included), linguistic competence in two languages (e.g. in English and in Modern Greek), 'inter-scientific' and intercultural competence and organisation skills are quintessential for this ELT or ESP/EAP Methodology. Contemporary non-English university instructors living and working in a non-English (e.g. Greek) environment should be trained in such a way so that they will be able to respond to the new demands and realities of non-English (e.g. Greek) Universities, something that is not done holistically in Greece, as we mentioned at the beginning of the present study. Furthermore, ESP/EAP instructors at English and non-English Universities should be brought together with specialists of a variety of specific scientific domains, translation scholars and lexicographers so that issues such as the interweaving of interdisciplinarity and inter-scientificity that give birth to semantic differences and nuances of the same terms in different disciplines and cultures can be examined thoroughly. In this way, ESP/EAP teachers: (1) become better informed about terminological and discursive issues involved in their teaching; and (2) develop an network ESP/EAP teachers and specialists who can exchange information and knowledge so that the former do not get frustrated when encountering difficult and perplexing terms and discursive behaviours and practices. An early example of such good practice of this recommendation can be seen in team-teaching for students of Economics in Colombia in de Escorcia, B.A. (1984).

Last but not least, *students* and their attendance of and participation in the English classes are very important for this ELT or ESP/EAP Methodology, because it is their questions, difficulties, comments and observations that made us explore 'new' ways of implementation of 'traditional' EFL, ESP, EAP methods combined with translation methodologies in our ELT classes (Nikolarea, 2004b) and, in so doing, brought this four-step ELT Methodology into being.

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APPENDIX

QUESTIONNAIRE

1. Did you find ESP and EAP classes helpful? YES □ NO □
2. Which part of your ESP and / or EAP classes did you find most helpful and why?
3. Did you use / Are you still using ESP and EAP and in what scheme?
    - Erasmus exchange programme □
    - Erasmus placement □
    - Work placement abroad □
        - Which country? _____
    - Following a Master's □ or/and Ph.D. degree in Greece □
    - Following a Master's □ or/and Ph.D. degree in an English-speaking country or/and international programme
        - The U.K. □
        - The U.S.A. □
        - Canada □
        - The Netherlands □
        - Denmark □
        - Norway □
        - Other country □ – name it _____
4. Following an academic or professional career abroad? □
        - Which country? _____

The Questionnaire that was distributed to our former undergraduate students.

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Teachers' Perception of Content Knowledge and Language Knowledge in EAP Assessment: A Case of Argument-Based Approach toward EAP Validity

Mohammad Reza Anani Sarab

Shahid Beheshti University, Tehran, Iran

Rasool Najjarbaghseyah

IRI Amin Police University, Tehran, Iran

Muhammad Nasser Vaezi

Ph.D. in TEFL, Freelance Researcher, Qom, Iran

Biodata

Mohammad Reza Anani Sarab is Associate Professor of TESOL in the Department of English Language and Literature at Shahid Beheshti University. He holds a PhD in TESOL from the University of Leeds in the United Kingdom, an M.A. in TEFL and a B.A. in English Literature both from Allameh Tabataba'i University. He has authored several articles in his areas of interest in local and international journals and a number of textbooks for teaching English as a Foreign Language. He is currently the chief editor of Roshd Foreign Language Teaching Journal. His major areas of interest are: language curriculum, classroom-centered research, classroom discourse, and language testing & assessment.

Email: reza_ananisarab@yahoo.co.uk

Rasool Najjarbaghseyah is an Assistant Professor of TEFL in the Department of English Language at Amin Police University, Tehran, Iran. He holds a PhD in TESOL from Allameh Tabataba'i University, Iran. He has more than 10 years of English teaching experience in the academic context. He has also published articles in local and international journals and some

textbooks for ESP. His major areas of interest are: assessment literacy, teacher professional identity and development, critical pedagogy, classroom discourse, and ESP/EAP.

Email: rasool.najjar@police.ir (corresponding author)

Muhammad Nasser Vaezi holds a PhD in TEFL from Allameh Tabataba'i University in Tehran, Iran. As a freelance lecturer and translator, he has 25 years of English teaching experience in Iranian and international language schools and universities, and more than 22 years of translation experience. His research interest areas are language assessment, corrective feedback, critical pedagogy, critical discourse analysis, and materials development.

Email: nasser.vaezi@gmail.com

Abstract

The current study was an attempt to provide further evidence for the validity argument of English for Academic Purposes (EAP) assessment according to EAP teachers' experiences of language teaching and learning. To this end, 12 EAP teachers (6 content specialist teachers and 6 language specialist teachers) took part in a semi-structured interview aimed at eliciting the participants' perceptions of their practices in assessing EAP learners. The interviews were analyzed through qualitative content analysis to find out how the participants targeted subject-specific knowledge and language knowledge and how they perceived the 'specific purpose language ability' as a construct. To this end, Messick's facets of validity were adopted as the framework for data analysis. The findings suggest that in the context of the study, both groups of EAP teachers view 'specific purpose language ability' as a construct of test design. Both groups linked this construct to the ability to read content-specific texts. However, the distinguishing factor was the fact that language specialist teachers (LSTs) put emphasis on language and content specialist teachers (CSTs) on content. The results showed that their views tended to disagree on the integration of language knowledge and content knowledge in the assessment process. The study results contribute to the validity arguments that EAP/ESP teachers could provide for their assessment practices in and out of the classroom.

Key words: assessment literacy, EAP test and assessment, ESP testing, language knowledge, content knowledge

1. Introduction

English for Academic Purposes (EAP) assessment is theoretically considered as a branch of English for specific purposes (ESP) testing (Charles, 2013). According to Fulcher (1999), EAP assessment may have three functions including proficiency testing, placement testing, and achievement testing. Traditionally, EAP testing has paid more attention to proficiency function to determine whether students are proficient enough to be allowed to enter universities. Nowadays, it is the function of achievement and attainment after language learners have entered academic courses during their ongoing learning process that is on its agenda (Douglas, 2013). Because EAP assessment for achievement purposes is conducted under EAP teachers' supervision and such tests are mainly small-scale, teacher-made tests within a specific context rather than standardized tests, it is more likely that the construct (language specific ability) and its validation process would be viewed differently by EAP language teachers.

ESP/EAP measurement tool validity is one of the most important properties of an assessment process. EAP test developers try to provide validity evidence through different names including content, criterion, predictive, and construct validity types. However, there is a new approach to validity that is called argument-based approach (Kane, 1992, 2001, 2002, 2004, 2006; Messick, 1995). According to Kane (2006), argument-based approach to validity is a two-phase process: an interpretive argument and a validity argument. The former means giving the chain of reasoning for the inferences and assumptions someone makes from assessment results. In other words, interpretive argument provides connections between "an observation of performance and a claim based on that performance" (Becker, 2018, p. 2). Meanwhile, in the second phase, the proposed interpretive argument is evaluated through validity argument. In the validity argument, the claim that a proposed interpretation or assessment is valid is evaluated through evaluation of "the extent to which the interpretive argument is coherent, that its inferences are reasonable, and that its assumptions are plausible" (Kane, 2006, p. 13). In general, the validity argument approach tries to create the structure of the arguments for the proposed assessment claims (i.e., interpretive argument), and to evaluate the credibility and comprehensiveness of the structure (i.e., the validity argument).

The current study is, therefore, an attempt to provide some evidence on the role of subject-specific knowledge, or content knowledge (referred to also as background knowledge) and language knowledge in EAP assessment drawing on ideas and insights elicited from EAP teachers. The

study tries to explore validity arguments of EAP teachers' assessment activities through argument-based approach to validity. It aims to explore the perception of language/content specialist teachers toward EAP language assessment practices (interpretive argument). It also aims to explore how their perceptions may imply the validation of EAP language assessment practices.

2. Research Questions

The study intends to provide answers to the following research questions.

1. What are the perceptions of language specialist teachers of EAP language assessment practices?
2. What are the perceptions of content specialist teachers of EAP language assessment practices?
3. How do approaches of language specialist teachers in their practice of EAP assessment contribute to the validity argument of EAP assessment?
4. How do approaches of content specialist teachers in their practice of EAP assessment contribute to the validity argument of EAP assessment?

3. Literature Review

Assessment is mostly concerned with making inferences about competence from learners' performance. Transitionally, the validity of inferences was bound to a three-partite validity concept including content, criterion and construct validity types. Messick (1995) integrated score meaning to its social value implications in a comprehensive framework of construct validity with six different but interrelated aspects that he described as content, substantive, structural, generalizability, external, and consequential aspects of construct validity. Under this framework, the validation process rests on both empirical value and argumentation. The point is that test validity need not rely on one source of validity evidence or include all as long as the evidence provided can support the score meaning. Messick argued against prioritization of validity evidence by making the point that prioritization, by ignoring some sources of evidence and in some cases discounting an alternative, may lead to multiple priorities. Kane (1992) addressed the priority problem by proposing a framework which includes the whole process of assessment. The process starts with scoring observations, followed by the generation of an overall score. The overall score meaning is then extrapolated to the real situation of use. This information is interpreted and a decision is made on its basis. In each phase, a number of hypotheses are implied which are made

explicit as a basis for drawing the validity argument. Kane's model then specifies the evidence for each phase of the process that can be collected to confirm/refute the hypotheses. In this way, the evidence collected would strengthen or weaken the hypotheses and ultimately lead to the overall validity argument. In the context of the present study, Messick's framework is preferred as prioritization is not an issue when validity arguments are elicited from two groups of teachers with different background experiences of test construction and use.

The content aspect of validity of EAP assessment is controversial as different views are expressed with regards to the boundaries of the construct domain. On the one hand EAP assessment is a type of measurement in a specific context aiming at assessing the ability of using the language as a construct. On the other hand background knowledge in EAP assessment cannot be regarded as a source of construct-irrelevant variance (Douglas, 2000; Fulcher, 2000; Messick, 1989). In other words, a connection between language ability and background knowledge can be postulated on the grounds that the latter provides a supporting argument for language ability, i.e. the construct (Fulcher & Davidson, 2012). Douglas (2013) assumes that there is an interaction between specific purpose language and specific purpose content knowledge. He recommended that in addition to linguistic knowledge, background knowledge has to be a part of the construct in specific purpose tests. Accordingly, content knowledge can be considered a contextual factor in EAP assessment that language learners might use even when they have little language knowledge. Distinguishing language knowledge from content knowledge is very difficult in practice (Alderson & Urquhart, 1985). Accordingly, they are inseparably connected to language performance in the content fields (Chapelle, 1998; Douglas 2000, 2005; Fulcher, 2000).

The above controversy gains more importance in ESP/EAP courses in which assessment is brought sharply into focus by the fact that such courses normally have specified objectives (Hutchinson & Waters, 1987) whose achievement needs to be checked through assessment. The implication is that through formulating goals for a particular EAP course, a teacher can create a clear picture of what the course is going to achieve (see Graves, 1996; Nunan, 1988). Clarity about course content and objectives enables them to develop their own assessment scales (Cai, 2013) consistent with the processes underlying performance. Hyland (2006) proposed five main reasons for assessing learners' attainment: diagnosis, achievement, performance, proficiency, and accountability.

Current studies on EAP assessment and testing show that achievement (Douglas, 2013) and diagnostic purposes are the two major types of assessment in EAP contexts.

Davies (2008) attended to the context of EAP assessment through discussing authenticity. He appropriately argued that tests might only pretend authenticity. Seemingly, he views authenticity as a unified whole, in the sense that tests might be either authentic or not: "… tests simply cannot be authentic: what they can (all they can) do is to simulate authenticity" (pp. 69-70). Others (e.g., Aryadoust, 2009; Bachman, 1990, 1991; Douglas, 2000; Li, 2013) believe that the degree of authenticity is bound to the degree the features of the specific purpose context are simulated in assessment tasks. Douglas (2005) offers a continuum of specificity with less authentic general tests on one side and the more authentic specific ones, on the other. Authenticity is also relevant to the question of validity. Bachman and Palmer (1996) lists authenticity as one of the six key qualities of language tests alongside reliability, construct validity, interactiveness, impact and practicality.

Theoretically, there have been some practical evaluations of EAP assessment process. For example, Banerjee and Wall (2006) developed and validated an assessment checklist in order to assess academic English courses. Brooks (2009) explored the discourse construction process in EAP speaking tests and found that interaction with other learners co-constructed a more complex discourse than interaction with an examiner. Davidson and Cho (2001) suggested that EAP learners need specific tests rather than general tests, and EAP examiners have to orient themselves toward assessing academic units in the assessment process.

Furthermore, some EAP scholars have shown interest in the use of standardized large-scale tests such as IELTS or TOEFL in the EAP assessment process. According to Biber et al. (2004), for example, it is possible to conclude that TOEFL, as a large-scale test, has the potential for assessing university language use. The literature shows that there are also some other local EAP tests such as the College English Test in China (Zheng & Cheng, 2008), the Canadian English Language Assessment (Turner, 2005), and the British Test of English for Educational Purposes (Ashton & Khalifa, 2005; Slaght & Howell, cited in Douglas, 2013).

In general, review of the research literature on EAP assessment shows that a great deal of issues such as the nature of EAP assessment, reasons, characteristics, and principals of EAP assessment, EAP teacher assessment, and so forth have been the major concerns of researchers. Findings of the above-mentioned studies could also help EAP language teachers to shed light on the argument-

based approach toward EAP validity (Becker, 2018) when designing language assessment practices. This approach has been followed in some language assessment programs, although there have been few studies in language assessment in general (Mendoza & Knoch, 2018) and EAP in particular. Knoch and Chapelle (2017), for example, showed that how inferences and assumptions associated with the rating of test takers' linguistic performance can be included in a validity argument. The Michigan English Language Assessment Battery (MELAB) speaking task was analyzed from argument-based approach using the extrapolation inference (LaFlair & Staples, 2017). In terms of academic purposes and drawing on an argument-based approach to validation, Mendoza and Knoch (2018) developed an analytic rating scale for a Spanish test for academic purposes.

As mentioned, this approach is followed through two phases including interpretive argument and validity argument. In the context of EAP assessment, argument-based approach could link observation of learners' behaviors and the observed score (interpretive argument) to a valid judgment (validity argument). Although this approach could be neatly defined and followed in an English language assessment context (see Wools, Eggen & Béguin, 2016), an EAP language teacher might combine these simultaneous processes while assessing learners. A representation of such an approach in EAP could be identified from exploring EAP teachers' assessment practices in the classroom focusing specifically on the role of specific purpose language ability as a construct in assessment practices.

Because this construct (language knowledge and subject-specific knowledge) has remained implied for EAP teachers and by nature it is still vague and unidentifiable, it is of utmost importance to explore teachers' approaches toward this phenomenon. This clarification may contribute to assessment validity arguments that language EAP teachers use while assessing students. To this end, the present study is an attempt to explore EAP teachers' views of the validity argument process that they go through in the EAP context following the principals of argument-based approach to validation.

4. Methodology

4.1 Participants

This study was conducted among 12 ESP teachers as participants of the study selected through purposive sampling because the respondents should have specific characteristics (Dörnyei, 2007). These participants with more than 7 years of teaching experience were 6 (2 females and 4 males) language specialist teachers and 6 (3 females and 3 males) content specialist teachers, hereafter called LSTs and CSTs respectively. CSTs who came from the fields of law enforcement and theology and LSTs both taught the course of English for the Students of Theology. All of the participants were PhD holders and worked as faculty members in the EAP context. Their background experiences in this context made them aware of the EAP learners' learning experiences and needs.

4.2 Data Collection

This study used an interview schedule as the main instrument of data collection. Semi-structured interviews were conducted drawing on the aims, content, forms, and score interpretations of EAP assessment. Accordingly, teachers were asked to talk about their opinions and values (to collect data on aims of EAP assessment) as well as experience and behaviors (to collect data on contents, forms, and score interpretation of EAP assessment) while assessing EAP learners. There were 4 interview questions which were validated through expert judgments and presented to every participant individually in a 30-minute interview session. Participants' stories about EAP assessment were recorded and then transcribed to be prepared for analysis.

4.3 Data Analysis

Teachers' recorded interviews were analyzed using in-depth qualitative content analysis procedures in order to explore themes in the data. Initial coding started with reading transcribed interviews several times highlighting relevant topics to validity arguments of EAP assessment. The second-level coding method followed 'template organizing style' (Dörnyei, 2007) in that the highlighted texts were coded using predetermined template, i.e. Messick's framework (1989). Accordingly, the identified topics from interviewees' profiles were evaluated and discussed in terms of predetermined codes adopted from Messick's framework using a reiterative process.

Furthermore, validity of the codes was judged by 5 EAP teachers. Finally, the identified codes from LSTs and CSTs were compared to find how these two groups of teachers represented the language specific ability as a construct in EAP assessment.

5. Data Interpretation and Results

Research Question 1: What are the perceptions of language specialist teachers of EAP language assessment approaches?

LSTs reported that they assess language specific ability by means of assessing reading comprehension. In other words, they assumed that 'communicative competence' was realized through 'reading comprehension' in the ESP/EAP context. Accordingly, most of EAP teachers in the context of this study used 'reading comprehension' test items while designing tests.

LSTs assessed learners in a two-step process i.e. mid- and final-term test. For this group of teachers, 'language structure' had to be assessed to the extent possible through subject matter content.

> I'm not a specialist and just teaching English to language learners. I try to pick out the language points from the content specific texts. I do assessment in the classroom in two phases: mid-term and final exams.

These teachers used assessment primarily for 'summative purposes' but they also used the results to inform their teaching practice. The latter function of assessment seems to be diagnostic complementing the achievement function of assessment.

> Through assessment, I want to identify the main problems that language learner might have… I give them some texts that they have not seen in the classroom.

Research Question 2: What are the perceptions of content specialist teachers of EAP language assessment practices?

With one exception, CSTs also reported that they assess language specific ability by means of reading comprehension tests. They assumed that 'communicative competence' was realized through 'reading comprehension' in the ESP/EAP context. Accordingly, most of EAP teachers in the context of this study used 'reading comprehension' test items.

CSTs tended to use a content-specific text as the source of comprehension and translation items. They tried to link all items to the same text.

> In test papers, I provide learners with two types of questions: reading comprehension and translation from L1 to L2 and vice versa. To this end, I select a specific text and design various test items based on this text.

Findings showed that although CSTs focus on the measurement of the construct of reading comprehension, they link it to the level of technical and semi-technical vocabulary knowledge as well as the ability to translate the text from L1 to L2 and vice versa.

> In the mid-term exam, I ask learners to read specific texts so that I can test their reading skills. I check learners' knowledge of specific vocabulary as an ongoing process from the beginning of the course.

Moreover, findings of the study showed that CSTs believed that, as the ESP course is intended to prepare learners for communication in the EAP community of practice, the content knowledge is of greater importance compared with language knowledge.

> The aim in EAP is content knowledge. They have to know how to communicate content through language. Since participants of an EAP course have already been equipped with general language knowledge, they are required to know how to acquire content knowledge in EAP classes.

CSTs perceived assessment and teaching as a unified whole in the sense that they saw no distinction between classroom instructional activities and the items included in the final exam. In other words, for them, assessment was an extension of classroom instruction. The major instructional and assessment activity for CSTs was the use of content-specific texts to be read for their content. The students were supposed to show their comprehension through their word knowledge and their ability to express what they have understood from the text in their L1.

> Since EAP learners should comprehend the main ideas of the texts, I teach and assess this ability by giving them short texts or paragraphs and ask them to say or write what they perceive from these texts in Persian.

This group of participants tended to expose the students to the same materials they used for teaching, in the final exam. They assumed that whatever content the students had learned through English should be available to them in the final exam.

> We assess what we had before and what we presented to the language learner in the classroom.

Research Question 3: How do approaches of language specialist teachers in their practice of EAP assessment contribute to the validity argument of EAP assessment?

Although LSTs believed in the 'ability to read' as the construct of language specific ability (construct validity), they stressed that they could not base their judgments solely on the test score gained from learners' ability to answer test items designed based on content-specific texts. Their argument was that an EAP learner might answer an item correctly in spite of having difficulties with the language used. In a case like this, the students use their content knowledge to compensate for linguistic deficiencies.

> LST: sometimes an ESP/EAP learner doesn't know the structure but, because of familiarity with the content, he/she can get the item correct.

Furthermore, LSTs pointed out that the process of assessment could not be limited to the end-of-the-term tests since justifications for EAP learners' scores had to be also gained from various bits of information about learners' performance accumulated during the whole semester (i.e. a formative assessment is also needed).

> LST: I assess students in multiple steps over the semester and the final test score comes from averaging the scores collected throughout the semester.

These teachers identified the role of the language knowledge as superior to content knowledge although they considered both of them to play a role in the students' test scores. The LSTs' views implied that there were some distinctions between ESP and EAP; while the latter required more language knowledge, the former mostly focused on content knowledge.

> LST: If the subject is the language itself (English) - and this includes EAP, then the language is more important than content knowledge. The content knowledge is of

> importance in so far as the student is studying English in order to do studies or work within the content area field. However, the EAP/ESL teacher is often not an expert in the content area, and so he/she cannot make a judgment on the content area. The immediate task for the teacher is teaching English not teaching the subject.

As it is evident from the language excerpt above, LSTs see their role as a language expert whose job is to attend to the language of the text on the grounds that they lack the content-specific knowledge available to CSTs, and even if they had they would think that what makes the text accessible to learners at this level is their language related ability and not their content-related one.

Although LSTs gave priority to language in text comprehension, they acknowledged that the level of specificity of the carrier content had a role to play in text difficulty. The texts used for general English and to some extent EAP texts include very few general references to text-external context. This very feature makes them good candidates for language learning. On the other hand, more specialized texts with their abundant specific references to text-external context are less accessible to the learners who lack relevant cultural and professional background experiences.

> LST: I would say that assessment of beginners should focus on learning the language in general and it should introduce the students to specific contexts. At higher levels, assessment should focus more on specialized language with content selected according to their cultural competence and professional experience.

Research Question 4: How do approaches of content specialist teachers in their practice of EAP assessment contribute to the validity argument of EAP assessment?

CSTs perceived the 'ability to read' as the construct of language specific ability in EAP assessment. In other words, they considered the ability to read content-specific texts as synonymous with the construct of specific purpose language ability. For them, the test scores being achieved based on reading content-specific texts provided evidence for the validity of assessment.

> CST: I give vocabulary activities, multiple-choice items, and translation tasks to check reading comprehension.

CSTs believed that test scores were directly related to the learners' *reading specific ability* and thus they supported construct validity. CSTs interpreted these scores as evidence for language learners' comprehension of content-related texts which are considered distinct from general texts. For them, the text used for instruction and assessment were relevant to the content domain and as a result could be utilized as a link between the test context and the target context. They explicitly stipulated that their test items referred to the specific context for which the test was designed.

> CST: … for example, when an ESP learner gets full mark, I understand that he is able to read texts similar to the ones he was supposed to use in developing term papers for his content courses.

> CST: …I always use specialized texts in the test papers.

Test utility can be inferred from the practice of CSTs in using the total scores of the test papers as a source of deciding whether the students were eligible to pass the course or not.

> CST: when the test takers get less than 50% of the total score, it means that they are not able to read a content specific text and they have to take the course again in the next semester.

To put it in a nutshell, the results showed that the two groups believed in almost various facets of validity (Table 1).

Table 1: Messick's Facets of Validity (Messick, 1995)

	Test interpretation	Test use
Evidential basis	Construct validity	Construct validity + relevance/ utility
Consequential basis	Value implications	Social consequences

The two facets of validity are the basis upon which validity is interpreted (evidence for score meaning and consequences contributing to social validation) on one axis and the object of interpretation (test function and use) on the other. The combination of the two facets provides a four-fold classification of evidence types necessary for the validation process. Accordingly, evidence for Messick's facets of validity in the EAP context of the current study can be presented

in terms of construct validity, utility, value implications, and social consequences. In the following table (Table 2) the validity argument extracted from EAP CST and LST is presented.

Table 2: Messick's Facets of Validity in EAP context

Evidence	argument
Construct	Test items should measure reading specific ability of EAP learners. (CST)
	It is the language specific ability that test papers are designed to assess. I also design test items for checking reading comprehension. (LST)
Utility	Many EAP language teachers design the assessment process according to language knowledge. (LST)
	My experience shows that EAP test papers should focus on content knowledge. (CST)
Value implications	Through content knowledge, EAP learners can develop. They can use content knowledge as a tool for self-direction, autonomy, and achievement. (CST)
	EAP learners who are proficient at *language knowledge* can use international sources and improve themselves irrespective of content knowledge. (LST)
Social consequences	EAP learners whose success is confirmed by the assessment process of the EAP course have the proficiency to participate in the target community. (LST)
	Successful students, I mean those who pass the test, are supposed to read related journals, books, and search the internet … (CST)
Interpretation and real world action (Interpretation and real-world action relate to outcomes of testing)	EAP practices could facilitate theory-building concerning the nature of EAP assessment. (LST)
	My testing actions during the course show students how to participate in the international community of practice. (CST)

According to the results (table 2), teachers' views reflect the elements of validity argument based on their assessment practices. In other words, these two groups of teachers tend to establish the validity of EAP assessment on the same lines drawn by Messick's framework. The results can be summarized as follows:

- The two groups see the construct of specific language ability in different ways. CSTs portray the construct in terms of content knowledge, while LSTs portray it in terms of language knowledge.

- In utility terms, CSTs put emphasis on content knowledge in test construction, while LSTs prefer to design their assessment with a focus on language.

- CSTs value content as a vehicle for student development and autonomy, while LSTs value language as they assume it helps the students in their efforts to become independent readers of English texts.

- For both groups, the consequence of EAP assessment is the students' success in becoming active members of the target community of practice.

- Both groups interpret the EAP assessment as an incubation period during which the students practice participation in the target community.

6. Major Findings and Discussion

As far as the EAP language teachers' perceptions of assessment practices are concerned, there are two general understandings of EAP assessment which may contribute to validity arguments of such tests. One is that EAP teachers link assessment to the reading ability and the other is that they link it to background knowledge. In other words, EAP teachers see either reading comprehension or content knowledge as a channel through which the construct of specific purpose language ability is realized.

The study, however, accurately recognizes and emphasizes the effect of background (content) knowledge on EAP test scores. This interaction between specific purpose language knowledge and specific purpose background knowledge (Douglas, 2013) has been the main distinction between test in EAP and test in general English courses. Notably, the findings of the present study confirmed the two different bodies of knowledge but each group stuck to one body of knowledge ignoring the other one. This is problematic as the interaction of the two bodies of knowledge is ignored in the context of EAP.

In terms of the validation process, according to Messick (1989), validity is the degree to which a test score can be related to the construct. Therefore, it is the interpretation made of test scores rather than the test itself that would be the criterion for test validation. Drawing on Messick's framework, the findings suggest that both LSTs and CSTs interpret the construct of specific purpose language ability as synonymous with the ESP learners' reading comprehension ability.

The EAP teachers, for example, interpret the maximum score (20) on a reading test as the ability of students to read subject-specific texts. The implication is that they view test scores as evidence for the degree the construct is available to the testees. This might seem less reasonable from the mainstream perspective in EAP, as from this perspective EAP is not just limited to the ability of reading. This might be an instance of construct under-representation (Messick, 1995). However, from the perspective of variations in EAP context of use (Davies, 2001), and the fact that, in the context of Iran wherein English is not the medium of instruction, reading specific-content-related sources is the need predominant in higher education. On this basis, it might be admissible to limit the content domain to content-related texts and to limit communication to interaction with texts. This might be the reason why some figures have suggested 'face validity' as the only justification for developing specific purpose language tests (Davies, 2001). The choice of a test method depends on the method's potential to elicit the type of response or performance that will allow us to make score-based inferences from the test to the construct. However, as it has frequently been pointed out in the literature (Bachman, 2007; Spolsky, 2008), the choice of test method has also been directly related to how we define the language itself.

The evidential basis of test use (relevance/utility) for EAP test and assessment in the context of this study can be interpreted in terms of authenticity in the sense that the tests included texts taken from the content domain, and test method was similar to what is expected from the students to do with texts in the target domain. So, in general, the EAP teachers from both groups utilized authentic texts to gauge learners' ability to read sources in English in their content subjects. These teachers valued the tests (value implications) in terms of the capability they have in developing reading comprehension ability. Finally, they also valued test scores as they enabled them to make judgments about the eligibility of the students to pass the course or the lack of such eligibility in the case the students were supposed to repeat the course.

In general, this study found that in an academic context the evidence for interpretive argument (Becker, 2018) could come from arguments (i.e., inferences and assumptions) that EAP teachers provide for the construct (both language and content specific ability), utility, implications and social consequences. In terms of validity argument, EAP teachers evaluated their inferences in terms of test interpretation and use in the academic context. Their validity argument could be their emphasis on having various forms of EAP assessment in contrast with having high-stake tests such as competency tests (LaFlair & Staples, 2017; Wools, Eggen & Béguin, 2016).

7. Conclusion

Consistent with the argument-based approach to validity, the study concluded that EAP assessment practitioners could consider the construct of 'language specific ability' and 'reading specific ability' as interpretive argument for designing assessment practices. Accordingly, each assessment practice could combine these two constructs as the framework for providing assumptions and inferences for developing test items. Then, for validity argument, the Messick's model could be followed to create a chain of links of interpretations which totally prove the appropriateness and adequacy of inferences and assumptions due to the construct of 'specific purpose language ability'. Both groups linked this construct to the ability to read language-specific texts. However, the distinguishing factor was the fact that LSTs focused on language and CSTs on content. The results suggests that the framework of argument-based approach for investigating validity in EAP assessment demands more varied and robust evidence for its effectiveness in various EAP contexts.

In general, as mentioned by Douglas (2013), there is ample evidence for the psychological reality of the construct of specific purpose language ability, though one can find varying degrees of authenticity and specificity across different contexts of ESP/EAP testing and assessment. The extensive variation in the context of use and its implications for the validity of EAP/ESP testing and assessment is the issue highlighted in the present research. The results provided evidence for the way assessment is validated by LSTs and CSTs.

The results have implications for the practice of EAP in the context of the study. One implication is that language specialists and content specialists should collaborate to provide the right conditions for the interaction between specific purpose language knowledge and specific purpose content knowledge. The second implication is that EAP teachers should become aware of the impact of their views on the validity of EAP assessment. In the context of the present study teachers' views reflected the construct of specific purpose language ability in a limited way. The results, though significant, should be interpreted cautiously due to a number of limitations. First the study had very few participants and there was only one source of data. It is recommended that the study is replicated with a larger sample and with more sources of data.

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Informality in Academic Discourse: A Cross-Cultural and Cross-Disciplinary Investigation

Davud Kuhi

English Language Department, Maragheh Branch, Islamic Azad University, Maragheh, Iran

Behnaz Sharghinezhad

Shahid Madani University of Azarbaijan, Azarshahr, Iran

Shirin Rezaei

English Language Department, Tabriz Branch, Islamic Azad University, Tabriz, Iran

Biodata

Davud Kuhi is an assistant professor at Islamic Azad University, Maragheh Branch in Iran. He obtained his PhD in Applied linguistics from Islamic Azad University, Tabriz Branch. His main research interests include academic discourse and genre analysis.

Email: Davudkuhi@yahoo.com

Behnaz Sharghinezhad holds an M.A. in English language teaching from Shahid Madani University of Azarbaijan. Her major area of research interest includes discourse analysis and genre analysis.

Email: Behnaz_shargineghad@yahoo.com

Shirin Rezaei is a PhD candidate in English language teaching at Islamic Azad University, Tabriz Branch. Her major area of research interest includes discourse analysis and genre analysis.

Email: Shirinrezaee89@gmail.com

Abstract

Intercultural rhetorics suggests that an individual can simultaneously be a member of several small cultures (e.g. professional, academic, disciplinary, institutional, etc.) and big (e.g. national, ethnic) cultures, the former with their particular norms, values and conventions overlapping with the latter (Atkinson 2004, Holliday, 1999). Adopting this theoretical framework, the present study aimed to examine the use of informality elements in 320 papers (2,085,012 words) written by native English and non-native Iranian authors in ten disciplines representing the so-called soft and hard sciences. Based on the results, the use of informality elements among Iranian and English authors was considerably different. Surprisingly, the biggest difference was in their use of first person pronouns, with Iranian being more impersonal than English counterparts. However, some similarities were found in distributing these features between two cultures, occurring most frequently in the soft disciplines than in the hard sciences and being employed far more frequently in the disciplines of philosophy and physics. Furthermore, a close analysis of the individual features also revealed very similar patterns of frequency: first person pronouns, unattended anaphoric pronouns and sentences beginning with conjunctions were the three most frequent informal features used by two cultures. The theoretical lens of intercultural rhetorics allowed us to discuss these differences and similarities in terms of big (national) culture and two small (institutional and disciplinary) cultures. The paper is concluded by offering suggestions for EAP courses in the Iranian context.

Key words: intercultural rhetoric; informality features; soft fields; hard sciences; discipline

1. Introduction

Intercultural rhetorics (IR) is regarded as the study of written discourse between and among individuals with different cultural backgrounds, which examines the positive and negative effects of the first language, culture, and education on producing text in order to inform teachers and learners (Connor & Rozycki, 2013). The origins of IR can be traced to Kaplan's (1966) seminal work on contrastive rhetorics (CR), which initiated the systematic analysis of the influence the first language and culture have on the writing of ESL/EFL students. Although groundbreaking at the time, contrastive rhetorics (CR) was criticized for relying solely on a questionable understanding of culture as an all-encompassing, monolithic system of rules and patterns of behavior shared by geographically and nationally distinct groups of individuals (e.g., Atkinson,

2004; Kubota & Lehner, 2004; Matsuda & Atkinson, 2008; Pennycook, 2001; Spack, 1997). In response to these criticisms, Connor (2002) presented a series of advances in CR inspired by Atkinson's (1999) call for a dynamic view of culture leading to a conceptual shift from the oversimplified account of cultural influences in old contrastive rhetoric studies to intercultural rhetorics.

This evolution of IR established three basic tenets for studying academic writing (Connor, 2008): (1) texts should be understood as a part of the social contexts in which they are written; (2) culture is complex and dynamic; and (3) written discourse encounters necessitate negotiation and accommodation. Changing the definitions of written discourse analysis—from text-based to context sensitive—and of culture—from static to dynamic— has contributed to the developments in methods of conducting intercultural rhetoric studies. In fact, intercultural rhetorics research is conducted by using a variety of research tools to determine base line comparisons with appropriate "tertia comparationes" in order to explain the differences and similarities in written products, as well as in the activity of writing through a number of qualitative approaches (Connor, 2004).

By adjusting its approaches and adopting a situated and dynamic view of culture while asserting the need for the comparability of genres across languages, IR has made valuable contributions to EAP/ESP writing studies by emphasizing the students' needs, teachers' preparation, and curriculum design in particular contexts (e.g., Petri, 2005; LoCastro, 2008; Xing, Wang, & Spencer, 2008; Akbari, 2009). The findings of these studies lend support to the view that IR helps to expand our understanding of EFL by identifying the preferred writing styles and structures in comparable genres across languages and varieties, as well as providing social, cultural, and historical explanations for such preferences (Connor, 2011). In this regard, a large number of cross-cultural rhetorical analyses were conducted over the last few decades to compare native and Iranian articles written in English: e.g. research on metadiscourse (e.g., Adel, 2006; Abdi, 2009; Keshavarz & Kheirich, 2011; Zarei & Mansoori, 2011; Fatemi & Mirshojaee , 2012; Taki & Jafarpour , 2012; Attaran, 2014), research on personal pronouns (Kuhi, Tofigh, & Babaei, 2012), and research on hedges and boosters (Mirzapour & Mahand, 2012). However, except Alipour and Nooreddinmoosa (2018), no study has focused on informality elements in research papers in different disciplines written by native and Iranian authors yet.

According to Hyland and Jiang (2017), informality has become an integral quality of academic writing and effective communication of academic ideas would become possible through manipulation of informal elements. This increase in the use of informal features in academic writing may be related to discursive adjustment of academic/scientific discourses to the sociocultural demands of scientific/academic communication (Hyland & Jiang, 2017). However, it seems that the inevitable realization of discursive changes in the process of academic/scientific communication is not that much easily welcomed particularly in non-English dominant contexts. It is believed that, this dynamic and unpredictable discursive practice results in a feeling of uneasiness among those accustomed to teaching and learning fixed conventions of communication in academic/scientific English.

However, these changes are taking place, and both expert and novice members of academic discourse communities should be able to adopt their rhetorical practices to them. This position probably necessitates developing an understanding (among the practitioners, learners, writers, etc.) of how communicative behavior should be adjusted to unpredictable sociocultural variables. In other words, even though the educational and social issues surrounding EAP classrooms are complex and often hostile to innovation and critique, they can be places of awareness of changes. Following this tradition, through analyzing informality elements employed in Iranian and native speakers of English research articles, this study makes an attempt to find out whether Iranian writers take the norms and conventions of the discourse community in writing or preserve the cultural identity and norms of their native language.

1.2. The Concept of Informality

Informality has generally been contrasted to what is seen to constitute formality. In other words, the very concept of informality presupposes the existence of formality and a recognized, distinguished set of conventions and practices (Hyland & Jiang,2016). A short glance at the existing literature indicates that informality has normally been treated as the deviation from a set of norms and conventions (Kuhi & Babapour, 2019). This approach is clear in definitions like the ones suggested by Collins Cobuild Dictionary: formal speech is one which is “very correct and serious rather than relaxed and friendly”. The theory of pragmatics, similarly, defines formality as something associated with ‘negative politeness’ and the use of distancing behavior to respect the others’ face and their wish not to be imposed on (Brown & Levinson, 1978). A large number of

definitions also link informality to the features found in spoken language (see for instance Longman Dictionary of Applied Linguistics) and see its use in writing as a deviation from the standards of written communication.

However, this concept of deviation (form norms, conventions, etc.) can be replaced by a more discursive characterization of the term, a characterization which recognizes the sociocultural origins and processes of this textual practice. Halliday's (1985) approach provides such a framework; in Halliday's systemic functional approach, the question of formality relates to tenor, or the grammatical choices that enable speakers/writers to enact their complex and diverse interpersonal relations by selecting language options which project an appropriate persona and a suitable connection with readers. In their influential work on informality in academic writing, Hyland and Jiang (2017) follow a Hallidayan approach when they relate informality in academic writing to the expression of a more personal tenor which implies a more intimate relationship to readers, a willingness to negotiate claims and a positive attitude towards subjectivity. In this approach, informality is not seen as a reluctance to attend to norms and convention. Nor is it seen as an inappropriate colloquial use of language. It is instead seen as a discursive adjustment to the sociocultural demands of academic/scientific communication. This is how we have approached informality in the current research.

Interestingly, as Hyland and Jiang (2017) argue, informality has invaded a large range of written and oral areas of discourse, and academic texts have also pursued this trend. Of course, approaching the issue form a pedagogical requires some caution. Chang and Swales (1999) and Hyland and Jiang (2017), as two influential works on informal aspects of academic writing, have dealt with the pedagogical challenges of the issue in detail. On several occasions throughout their project, Chang and Swales asked a group of L2 graduate students whether the informal features identified in academic texts make academic writing easier or more difficult. A clear majority of the respondents were concerned about the greater flexibility that greater informality could offer. Some respondents believed that the penetration of greater informality makes academic English more complicated. Further, some believed that learning the conventions of formal academic English was already a challenging task and should not be made more complicated by mixing formal and informal elements together. These challenges have attracted the attention of Hyland and Jiang (2017), who are similarly concerned with the potential difficulties created by this rhetorical change for students and novice writers, particularly in ESL context. They argue that

more informality in academic writing can create additional complexities in the relationships the writer is seeking to build with readers, leading to an increase in the compositional burden of novice writers.

The number of studies on informality in academic writing seems to be relatively small in the existing literature (e.g., Chang & Swales, 1999; Leedham, 2015; Hyland & Jiang, 2017; Chen, 2017; Alipour & Nooreddinmoosa, 2018). In the first influential work on informal aspects of academic writing, Chang and Swales' (1999) findings showed that three of the four most often mentioned features in their manuals survey – first person pronoun, unattended 'this' and sentence-initial conjunctions – were the most pervasive. From authors' point of view, this finding seems to reflect the tension between linguistic prescriptivism and authorial practice.

In another study, Leedham (2015) analyzed informality in a corpus including 146 (Chinese) and 611 (English) undergraduate assignments in Biology, Economics and Engineering. The results indicated high use of special connectors, the tendency for some informal lexical chunks, and the preference for the first-person plural among the Chinese undergraduate students in English writing. In fact, this tendency can be partially attributed to the way texts are used within secondary schools in China. Since students spend a great deal of time memorizing model answers for high stakes examination questions, which constitutes the majority of their writing in English before attending university, they are likely primed to believe that these chunks are acceptable in academic writing, and can use them in their longer undergraduate assignments in the UK.

In another study, Hyland and Jiang (2017) conducted a diachronic study on a corpus of 2.2 million words from papers in the top journals in four disciplines including applied linguistics, sociology, electrical engineering, and biology. They found a small increase in the use of these features which was mainly accounted for by increases in the hard sciences rather than the social sciences. The use of these features was largely restricted to an increase in the first person pronouns, unattended references, and sentences beginning with the conjunctions. For authors, these results represent changes in rhetorical conventions which accommodate more obvious interpersonal interactions in the sciences.

Alipour and Nooreddinmoosa (2018) also analyzed a corpus of 200 papers in applied linguistics written by Native English speakers and Iranian authors. The findings revealed that informal features were utilized more frequently in native rather than non-native papers, without any

significant differences in the two corpora in terms of their most and least frequent informal features. The authors argued that one possible explanation for Iranian non-natives' failure to use informality may be related to the nature of the academic paper writing courses. For authors, a further explanation behind this lower use of informality was likely attributable to Iranian writers' tendency to focus more on academic rules, textbooks, and formal writing.

Although these studies provide evidence that academic writing is becoming more informal, we believe that this also depends on the discipline in which informality elements were employed; this has been acknowledged by Chang and Swales (1999) and Hyland and Jiang (2017). In fact, it is increasingly accepted that each discipline has its own ways of explaining experience and forms of argumentation (e.g., Bloor, 1998; Holmes,1997; Hyland, 1999a,1999b, 2000b, 2001; Samraj, 2002), with the variations which necessitate more research even within disciplines (e.g., Ozturk, 2007). Hence, as Hyland (2004) truly argues, rhetorical features are inseparably related to the purposes of the disciplines. Thus, one way the use of language might vary across disciplines is in terms of the use of informal elements. By considering the above assumptions, the present study aimed at examining the use of informality elements in academic research articles written by native English speakers and Iranian authors in ten disciplines representing the so-called soft and hard sciences.

2. Methodology

2.1. Corpus

The analysis of informal features in this investigation focused on two sub-corpora: 160 research articles written by native authors (1,211,166 words) and 160 research articles written by Iranian authors (873,846words). We chose Applied Linguistics, Archaeology, Economics, Philosophy, and Psychology as representatives of soft fields, and Biology, Chemistry, Dentistry, Electronic Engineering, and Physics as representatives of hard sciences, selecting two papers at random from each of the journals which had achieved the top ranking in their field according to the year impact factor in 2017. Also, in order to control any possible chronological effect, the articles published in 2010-2017 were included in the corpora. Since the 'nativeness' of writers is not always something which could be easily discovered, the writers' affiliation and background were used as the guide.

2.2. Model of Analysis

In this research, we employed the list of informal features compiled by Hyland and Jiang (2017) which is originally adopted from the informal features identified by Chang and Swales (1999). The model developed by Chang and Swales (1999) is one of the rare systematic ones found in the previous literature. The researchers point out that they have developed the list of ten most frequently mentioned informal features on the basis of a survey covering writing manuals and guidebooks published from the 1960s to the 1990s. They also mention that, in this survey, they put aside rules which were more trivial and focused on more general rules which represent certain broad grammatical patterns or regulate specific groups of lexical items.

Since the category of sentence fragments almost never occurs in research writing Hyland and Jiang (2017) substituted this with second person pronouns. Table 1 provides the list of informal features compiled by Hyland and Jiang (2017).

Table1: List of Informal Features

1. First person pronouns to refer to the author(s) (I and we)

    e.g., "I will approach this issue in a roundabout way."

2. Unattended anaphoric pronouns (this, these, that, those, it) that can refer to antecedents of varying length

    e.g., "This is his raw material."

3. Split infinitives – an infinitive that has an adverb between to and the verb stem

    e.g., "The president proceeded to sharply admonish the reporters."

4. Sentence initial conjunctions or conjunctive adverbs

    e.g., "And I will blame her if she fails in these ways."

5. Sentence final preposition

    e.g., "A student should not be taught more than he can think about."

6. Listing expressions ('and so on', 'etc', 'and so forth' used when ending a list)

    e.g., "These semiconductors can be used in robots, CD players, etc."

7. Second person pronouns/determiners to refer to the reader (you and your)

    e.g., "Suppose you are sitting at a computer terminal which assigns you role R"

8. Contractions

e.g., "Export figures won't improve until the economy is stronger."

9. Direct questions

e.g., "What can be done to lower costs?"

10. Exclamations

e.g., "This is not the case!"

2.3. Procedure

The corpora were combed for informal elements using the AntConc concordance software (Anthony, 2011). Some of the features listed in Table 1, such as first and second person pronouns and unattended anaphoric pronouns, were identified through concordancing individual items (e.g. I/ we/ you and this/ that/ it). Others, like split infinitives, were searched using a regular expression query based on their syntactic structure. After extracting the items, each one was then checked manually by each author independently to confirm that it was a target feature, producing an inter-rater agreement of 93% before resolving disagreements. The Chi-square test was then used to determine statistical significances.

3. Results and Discussion

In this section, first, the result of the overall frequency of informal elements in native and Iranian corpora is presented as a whole. Second, Cross- disciplinary distribution of Informal Elements in hard and soft sciences RAs in two groups is provided accompanying their tables.

3.1. Overall frequency of informality elements

Table 2 indicates the total frequency of informality elements. As shown, the use of informality elements is considerably different among Iranian and English authors ($\chi 2= 3.8$, $p =0.049$). Iranian authors made a fewer use of informality elements, compared to native counterparts.

Table 2: Informal Elements Distribution in Native and Iranian Corpora

	Native articles	Iranian articles
Total number of words	1211166	873846
Total number of informal elements	18167	5243
Density per 1000 words	15	6

These differences are discussed from the perspective of intercultural rhetoric upon which an individual can simultaneously be a member of several small (e.g. professional, academic, disciplinary, institutional, etc.) and big (e.g. national) cultures, the former with their particular norms, values and conventions overlapping with the latter (Atkinson 2004, Holliday, 1999). In the next section, we first begin with the influence of big culture. Then the influence of small culture (institutional culture) will be discussed in more details.

3.1.1. The Influence of Big (National) Culture

As academic writing is a social act refracted through a discourse community (Ahmad, 1997), second language researchers may be influenced by the rhetorical patterns of their native language. Several studies conducted in light of this assumption reported some differences in the rhetorical structure of different languages by pointing to the interference of the rhetorical conventions of Ll with ESL writing (e.g., Ahmad, 1997; Al-Qahtani, 2006; Bickner & Peyasantiwong, 1988; Connor & Lauer, 1988; Hinds, 1987, 1990; Hirano, 2009; Hirose, 2003; Keiko, 2003; Mur Dueñas, 2008, 2009; Ostler, 1987; Taylor & Chen, 1991). Thus, as Table 2 clearly shows the national language differences play a role in using informality elements in our study. As noted above, the overall level of informality in the Iranian papers was less than English ones. However, this general trend does not necessarily mean that the selected features were used differently across the two cultures. A close analysis of the individual features revealed very similar patterns of frequency: first person pronouns, unattended anaphoric pronouns and sentences beginning with conjunctions and conjunctive adverbs were the three most frequent informal features used by two cultures. Surprisingly, the biggest difference was in their use of self-mentions, with Iranian being more impersonal than English counterparts.

In fact, based on the findings, the '*I'* perspective seems to be largely avoided in Iranian texts, and when authors include a personal reference, which tends to be plural in an attempt to sound less personal. This general trend for avoiding personal pronouns in Iranian academic discourse was confirmed in some studies (e.g., Abdi, 2009; Zarei & Mansoori, 2011; Fatemi & Mirshojaee, 2012; Taki & Jafarpour, 2012; Alipour & Nooreddinmoosa, 2018). As stated by Izadi (2015), Persian use plural pronoun (plural form of T/V) to address a singular addressee and a referent, plural form of the verb to implicate a singular person to agree with plural (respected) subject, and switching the second person to the third person pronoun to refer to the addressee which may be related to

collective vs. individualistic cultures (Clyne, 1987, 1993). In fact, Iranian people are generally collectivists in nature (Koutlaki, 2002; Eslamirasekh, 2004) and rely heavily on the social groups they belong to. The members of smaller academic communities communicating through their L1 locally may be considered collective, favoring a less personal discourse, while the members of bigger academic communities communicating internationally in English may be considered rather individualistic (Clyne, 1987, 1993).

On the other hand, making a more frequent use of self-mentions by Anglo-American writers was confirmed in the studies related to self-mentions in RAs in the two L1s and context publication (Mur-Dueñas, 2007; Sheldon, 2009; Williams, 2010). Hall and Hall (1990, p. 6–7) by introducing the concepts of high context (HC) and low context (LC) communication discussed cultural differences between the Germans, French and Americans. They describe the French as representatives of the HC culture, stating that ‘‘most of the information are already in the person, while very little is in the coded, explicit, transmitted message’’, while Americans, and Scandinavians, are said to represent LC cultures, where ‘‘the mass of information is vested in the explicit code’’. Our findings here might fit with their description of American culture.

3.1.2. The Influence of Institutional Culture

As it was already mentioned, according to Table 2 the use of informality elements is considerably different among Iranian and English authors ($\chi 2= 3.8$, $p =0.049$). From IR perspective, it is problematic to attribute these differences between native and Iranian writing only to a static definition of cultures. In fact, they can be discussed in terms of the sociocultural forces around their production, reception, and interpretation such as institutional forces. Current institutional trends are defining the graduate and postgraduate experience by supporting students with a raft of writing and research courses to help them improve their technical vocabulary, reading, and translation skills to adequately handle subject-specific textbooks in their later specialized courses. However, as Mazdayasna and Tahririan (2008) argue, the high commission of Iranian Ministry of Science, Research, and Technology offers no clear guidance for selecting and developing basic academic instructional materials related to the linguistic or communicative standards expected by students.

EAP and ESP are developing the branches of EFL instruction which are designed incoherently and unsystematically without any serious assessment of students’ needs, as they are not research-based

(Atai, 2002). This impression is reinforced by the multitude of university textbooks and style manuals available for teaching (see Hyland, 2002a; Bennett, 2009, Atai, 2002, Atai & Shoja, 2011, Mazdayasna & Tahririan, 2008). In fact, the textbooks follow a rigid format of such instructional exercises and activities as 'pre-reading', 'reading', 'homework' and 'language' exercises for all academic disciplines, with the major focus on reading comprehension skills (Mazdayasna & Tahririan, 2008). Despite the differences in target readership, genre and discipline, all textbooks present a very similar picture of what academic discourse is understood within the prescriptive tradition. The given recommendation is highly normative and quite simplistic which reinforces the notions of academic discourse as a quite monolithic entity resistant to deviation. Accordingly, style guides offer many rules for developing writers in order to produce effective texts, and the seemingly clear-cut guidelines presented in these manuals offer learners with explicit statements of what constitutes good writing. For example, many style manuals warn writers against the use of personal pronouns (e.g., White, 2000; Macmillan &Weyes, 2007; Allison, 1997; Oliver,1996; Fairbairn & Winch, 1996, Bailey, 2006; Cottrell, 2003) and "unattended" demonstratives (e.g., Faigley, 2006; Lunsford, 2003; Strunk & White, 2000). According to Bennert (2009), "the total effect is of a massive impersonal machine, where individual quirks are ironed out in the quest for uniformity and where there is no place for the 'personal voice' of the kind that prevails in more humanistic cultures" (p.43).

In general, it seems that EAP postgraduate/research students are expected to learn and follow the rules; it is only renowned researchers who are permitted to be more unconventional in their discourse (Belcher & Braine, 1995; Bloor & Bloor, 1991; Deveci & Nunn, 2014). Johns, 1997). In fact, EAP postgraduate/research students as neophytes can get away with far less personal/ idiosyncratic variation in terms of style or discourse (Harwood & Hadley, 2004). Thus, they have to make adjustments in terms of substance and style in order to be understood better by the consumers of their texts such as editors and reviewers and neglecting to teach Anglo-American discourse norms will only marginalize L2 speakers further in the gatekeepers eyes (Harwood & Hadley, 2004). This may be related to the fact that journals are looking for reasons to reject manuscripts, and that linguistic grounds were as good a reason as any for rejection (Gosden, 1992).

However, the picture appears more nuanced from Bennett's (2009) viewpoint within the Anglo-Saxon world. Indeed, the impression of homogeneity has been largely undermined by a large body of research suggesting a wealth of variation between different academic genres (e.g., Swales, 1990;

Bhatia, 2002) and disciplines (e.g., Bloor, 1998; Holmes,1997, Hyland, 1999a, 1999b, 2000; Samraj, 2002), and even between different approaches within a single discipline. More particularly, recent diachronic studies strongly lend support to this view by recognizing that academic discourse and its features are not fixed and monolithic, and they undergo great changes over time to meet the changing and evolving needs and expectations of the host discourse communities (e.g., Salager-Meyer,1999; Salager-Meyer etal., 2003, Banks, 2008 ;Ayers,2008 ; Li &Ge,2009; Gillaerts & Van de Velde, 2010; Biber & Gray,2011; Kuhi & Dust-Sedigh, 2012; Gillaerts, 2013 ; Bondi, 2014; Kuhi & Mousavi, 2015; Hyland & Jiang, 2016a, 2016b, 2017, 2018a, 2018b,2018c; Jiang & Wang, 2018).

By placing thee results within their broader educational, political, historical and socio-economic context, it can be claimed the changes observed in academic discourse reflect the evolution of an increasingly promotional, competitive, professionalized research in 20th century, which tends to compel researchers to change the structure of academic genres progressively (Salager-Meyer et al., 2003). In this regard , a slow increase in informality features in academic writing in parent members of academic disciplines (Hyland & Jiang, 2017), and institutional pressures within English academia encouraging greater involvement with the audience outside of an immediate specialist group of like-minded academics through the manipulation of informality elements may result from the need for disseminating research to new commercially-oriented audiences and tempering judgements for the study which will be judged by tenure/promotion committees (Jiang & Wang, 2018).

3.2. Distribution of Informal Elements in Hard and Soft Sciences RAs

As Table 3 indicates there are some similarities in distribution of these features between the two groups, as you see, they occur most frequently in the soft disciplines than in the hard sciences both in Iranian and native corpus. A close analysis of the individual features also revealed very similar patterns of frequency: first person pronouns, unattended anaphoric pronouns and sentences beginning with conjunctions and conjunctive adverbs were the three most frequent informal features used by two cultures.

Table 3: Informal Elements Distribution in Hard & Soft Sciences RAs in Native & Iranian Corpora

Features	Hard Sciences		Soft Sciences	
	Native	Iranian	Native	Iranian
First person	4.03	2.48	7.92	3.65
Unattended reference	2.38	0.8	4.75	1.8
Initial conjunctions	1.23	0.7	3.14	1.4
Listing expressions	0.47	0.31	1.01	0.53
Second person	0.15	0.0	0.78	0.43
Direct questions	0.14	0.0	0.41	0.26
Split infinitives	0.12	0.0	0.07	0.07
Preposition ending	0.03	0.01	0.10	0.03
Exclamation	0.00	0.0	0.02	0.03
Contractions	0.0	0.0	0.0	0.2
Total	8.09	4.3	18.2	8.4

Interestingly, as shown in Table 4, philosophy and physics display a somewhat higher frequency of informality elements than other disciplines for both cultures.

Table4. Cross- disciplinary Distribution of Informal Elements in Native & Iranian Corpora

	Native	Iranian
Hard Sciences		
Physics	13.8	9.7
Biology	6.5	3.9
Chemistry	8.4	5.2
Dentistry	5.4	3.02
Electronic	10.9	9.2
Total	45	30.84
Soft Sciences		
Applied linguistics	4	3.8
Psychology	9.0	7.7
Archaeology	4	9.0
Economic	11.2	9.7
Philosophy	30.4	12.8
Total	58.6	43

In following section, these similarities are discussed from the perspective of intercultural rhetoric in terms of influence of small culture (disciplinary culture).

3.2.1. Influence of Disciplinary Culture

An explanation for more frequent use of informal elements in the soft sciences' research articles, compared to those in hard sciences in both cultures was offered by Hyland (2005), who argued that researchers in soft sciences rely more on interpretative results, and accordingly should employ more of the reader involving devices than scholars in the hard sciences. In other words, in the soft sciences, a writer's style is regarded as a significant element of his/her credibility in the paper. In fact, the writers' success in convincing readers of their reasonableness and sincerity achieved through balancing caution with commitment plays a great role in producing an effective argument. Therefore, a more personal and interactive style of writing is employed to address the readers directly and assure their conviction (Hyland, 2000a). In contrast, hard science writers are generally seeking to establish empirical uniformities through precise measurement and scrutiny of a limited number of controlled variables. Thus, scientists can downplay their personal role in the research to highlight the phenomena under study, the replicability of research activities, and the generalizability of the findings. By adopting a less intrusive or personal style, they suggest that research outcomes are unaffected by individuals by strengthening the objectivity of their interpretations and subordinating their own voice to that of the nature. Thus, the less use of informality elements may lend support to the view that "the author-centered approach is submerged in an object-centered rhetoric in which scientific "objects," rather than scientific people, assume increasing centrality and importance" (Atkinsion, 1999). The results of Hyland and Jiang (2017) were inconsistent with those of the present study, since they detected a larger number of informal elements in soft sciences than hard sciences.

Furthermore, as shown in Table 4, philosophy and physics display a somewhat higher frequency of informality elements than other disciplines for both cultures. The findings help to trace some trends, which are typical of a particular discipline irrespective of culture, simultaneously highlighting differences in epistemological traditions in different disciplines (e.g., Fløttum et al., 2006; Lafuente-Millán et al., 2010). In other words, the way researchers conduct their work and report their findings has created a disciplinary mold which transcends national culture. In fact, disciplinary communities play a significant role and the rhetorical options are more homogeneous

in fields such as philosophy and physics– in which authors adjust to a greater extent to the use informality elements – than in other disciplines. Thus, the ability to identify a discipline-relevant issue is not only a means for motivating readers but also a clear indication of disciplinary competence. For example, on one hand, it may involve narratives containing 'twin-Earth fantasies', 'imaginary conversations' and argumentative point scoring in philosophy (Bloor, 1996). On the other hand, it may involve the author's unique procedural choice in theoretical physics in order to describe the author's own work as the result of the discoursal function of focus.

These results are in line with those of Chang and Swales (1999) in which they detected a more salient occurrence of informal features in linguistics and philosophy research papers than statistics. Regarding self-mention pronouns, the findings of the present study are in line with those in Tarone et al. (1981, 1998) and Okamura (2003). Finally, in the case of unattended anaphoric pronouns, the results are consistent with Swales' (2005) study of 240 research papers in ten disciplines in which unattended "this" was most frequent in philosophy followed by physics.

3. Conclusion

The present study conducted from the perspective of intercultural rhetoric was oriented toward examining the use of informality elements in academic research articles written by native and Iranian authors in different disciplines. The theoretical lens of intercultural rhetoric allowed us to go beyond a traditional static cultural perspective to discuss the differences and similarities in terms of big (national) and two small (institutional and disciplinary) cultures. Based on the results, written text as a social act can be perceived as cultural products only to the extent that the sociocultural forces around their production, reception and interpretation both at the level of the local context of writing and at the broader social, discoursal, and institutional level are taken into account. Thus, dismissing the role of disciplinary and institutional culture in shaping their writings would be as naive and problematic as cultural stereotyping.

Furthermore, the findings shed light on the view that institutional culture plays a significant role in shaping academic writing of writers. Institutional power continues to remain principally in the large universities and industrial research labs by resisting the encroachment of alternative conventions into the mainstream. As mentioned, the notion of linguistic variation is becoming increasingly respectable among some members of the dominant communities. However, as Kress (1987, p. 42) argues, "new generic forms are unlikely to be successfully accepted into the

community's practices without changes in either social structure or in the social contexts within which texts are produced". Thus, according to Hyland (2004, p.175), "once again, the power to bend the rules is therefore largely in the hands of established figures in institutional system, rather than novices or journeymen".

Finally, the findings helped to trace some trends which are typical of a particular discipline irrespective of culture, as well as highlighting the differences in epistemological traditions of different disciplines simultaneously. In fact, the results lend support to view that each subject discipline has its own ways of explaining experience, its own forms of argumentation with variations, which necessitates research even within disciplines. Hence, rhetorical features rather than regarding linguistic features as regularities of academic style are inseparably related to the purposes of the disciplines.

Based on these findings, this study offers implications for renewing the EAP course for Iranian students. We think in line with Hyland and Jiang that these academic/scientific discourses are not merely storehouse of arcane, abstract, monolithic and forever frozen in time; what this means is that academic/scientific discourses have to be responsive to changing contexts and the demands of new conditions. In fact, these changes are taking place, and both expert and novice members of academic discourse communities should be able to adopt their rhetorical practices to them. In other words, even though the educational and social issues surrounding EAP classrooms are complex and often hostile to innovation and critique, they can be places of awareness of changes. This means academic writing should be seen as a process of raising students' consciousness of variations in rhetorical choices that make their texts appropriate for audience and context of the specific time.

Thus, while not necessarily ignoring the concerns of novice academic authors, we suggest that English for academic purposes should aim at developing an understanding of how communicative behavior should be adjusted to unpredictable sociocultural variables. The following tasks would be helpful in engaging the learners in recognition three major properties of academic writing - genre, style and register:

a) Genre-Related Tasks

engage the learners in analyzing the cognitive organization/schematic structure/move structure same scientific genres or rhetorical sections of the same genres produced in

different cultures; these types of analyses can focus upon the sequencing, frequency of occurrence, distribution and formal properties used for performing a specific functional act;

engage the learners in analyzing the cognitive organization/schematic structure/move structure of different scientific genres or rhetorical sections of those genres produced for different purposes and different audiences; these types of analyses can focus upon the sequencing, frequency of occurrence, distribution and formal properties used for performing a specific functional act;

engage the learners in analyzing the cognitive organization/schematic structure/move structure same scientific genres or rhetorical sections of the same genres produced in different disciplines; these types of analyses can focus upon the sequencing, frequency of occurrence, distribution and formal properties used for performing a specific functional act;

b) Style-Related Tasks

engage the learners in analyzing different degrees of formality in different scientific genres with different purposes and different audiences, and in similar genres produced in different cultures and different disciplines;

c) Register-Related Tasks

engage the learners in analyzing the syntactic and lexical properties of different scientific genres with different purposes and different audiences, and of similar scientific genres produced in different cultures and different disciplines.

This study was a bid to highlight some of the challenges that non-native writers of English wrestle with in using informality in research articles. We think much more research has to be executed to gain more insights into this slippery concept. In fact, at the heart of informality also reside some other components, such as lexis, grammar, and pragmatic aspects, to which we and other researchers so far have been seemingly oblivious. As a result, further research needs to be performed to bridge this gap.

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The Impact of ePortfolio Implementation on Motivation, Self-Regulation and Academic Language Development: the Learners' and the Teachers' Perspectives

Flordelis González-Mujico

Faculty of Arts, University of the Basque Country UPV/EHU, Spain

Biodata

Flor-de-lis González-Mujico holds an MA in Applied Linguistics and a BA in Modern Languages from Birkbeck College, University of London. She is currently completing her PhD thesis on motivation, self-regulation and digital learning environments in English language teaching at the University of the Basque Country. She has been teaching English as a foreign language since 2010 and is currently an online English tutor at the Open University of Catalonia. She has also imparted modules at the University of St Andrews, University of Northampton, King's College London, Royal Holloway (ISC) University of London and Laureate International Universities. To date, her fields of research include English language teaching and acquisition, motivation, self-regulated learning, and digital learning environments.

Email: flordlgonzalez@yahoo.es / fgonzalez015@ikasle.ehu.eus

Abstract

This paper argues that the successful integration of ePortfolios is meaningful to students and enhances learning when consistent with sound educational principles that align with the curriculum. Specifically, few studies have hitherto examined the weight of these claims within short-term ePortfolio implementation, particularly in English language teaching. This study adopted a mixed-methods approach for measuring the effectivity of the design and implementation of an ePortfolio, underpinned on future self-guides, within a six-week English language curricular module undertaken by Chinese learners of English at a British university. Results are presented

from the perspective of the two main stakeholders in this process: students and teachers. Key findings included enhanced motivation and English language proficiency.

Keywords: Electronic portfolios; English language teaching; English proficiency; motivation; self-regulation.

1. Introduction

Within the field of English language teaching (ELT), many (e.g., Carrier et al., 2017) see the role of pedagogy as the driving force of effective digital learning, advocating a shift in current practice as regards the design of pedagogical models based on technology.

Among the plethora of resources that comprise digital learning technologies, the use of electronic portfolios is increasing steadily in higher education institutions (e.g., Haggerty & Thompson, 2017; Housego & Parker, 2009; Rowley & Dunbar-Hall, 2012). Electronic portfolios (or ePortfolios) have been recommended as a viable learner-focussed platform that can represent students' contemporary digital identities (Meyer et al., 2010). As to their educational input, a recent evaluation of 21 ePortfolio projects by Joyes et al. (2010) argued that although ePortfolios can be used effectively as a pedagogic tool when embedded in curricular teaching, their ability to provide opportunities for reflection, skills development and self-assessment is subject to various caveats. Current literature (e.g., Bright, 2016; Haggerty & Thompson, 2017) concurs that the intentional use of ePortfolios as a pedagogic tool requires appropriate design of learning objectives. These aims should align with the curriculum's overall principles and assessment and be supported by sound pedagogical theory.

For ePortfolios to be beneficial to both the academic curriculum and students' development, they need to be student-driven and clearly linked to academic goals (Nguyen, 2013; Richards-Schuster et al., 2014; Tonogbanua, 2018). Individual and curricular objectives need to be balanced in structure, so that learners can make connections between their personal experiences and academic components, engaging continually in the recalibration of current and new understandings about themselves and their academic intentions (Nguyen, 2013). Robinson and Udall (2004) argue that allowing learners to record their own process and to reflect critically upon their development over time leads to better engagement with curricular objectives. However, whether these same gains

can be attained over a short period of time, or whether they can be applied to the context of ELT at tertiary level requires further investigation.

Motivational theories (e.g., Bandura, 1997; Holec, 1985; Schunk, 1991) argue, similarly, that learners need to know whether their performances correspond to their aims, and whether they have made any progress towards their objectives, as perceived progress is a key factor in human motivation. Dörnyei's (2009) L2 Motivational Self System (L2MSS), often referred to as future self-guides or possible selves, defines L2 motivational behaviour as being composed of three components: The Ideal L2 self is the L2 speaker we would like to become, and a powerful motivator to learn the target language because of the desire to reduce the discrepancy between our actual and ideal self; the ought-to L2 self concerns the beliefs a learner has about what is expected of them, and how to avoid possible negative outcomes; and the foreign language learning experience relates to the situated, professional motives related to the immediate L2 learning environment and experience (e.g., the impact of the teacher, the curriculum, the peer group, or the experience of success). Within future self-guides, the Ideal L2 self is considered to be the central component, with a definite guiding function in setting to-be-reached standards. Future self-guides concern individuals' conceptualisation of their as-yet unrealised potential, and subsequently, shed light on how individuals are moved from the present towards the future, forming an explicit link between the current self-system and their desired future self (Dörnyei & Ushioda, 2009). However, effective future self-guides need to come as part of a package, consisting of a significant imagery component and a repertoire of appropriate plans, scripts and self-regulatory strategies (Dörnyei, 2009). It is at this stage that the ePortfolio comes to the fore.

Theoretically, an ePortfolio designed upon Dörnyei's (2009) pedagogical framework of future self-guides would confer on this system a student-centred approach, which allows learners to continually evaluate their L2 individual and curricular aims in relation to their development, while pedagogy remains the driving force of technology. It is against this background that the focus of this study will be on the design and implementation of an ePortfolio underpinned on future self-guides within a six-week ELT higher education curricular module.

Bolliger and Shepherd (2010) claim that with well-designed ePortfolio implementation, learners are expected to become empowered, motivated, more reflective and interactive. Therefore,

investment in good curriculum and learning design is essential. To demonstrate its effectivity and in response to a growing concern with the accountability of ePortfolios in higher education, this paper aims to design and implement an ePortfolio for ELT and learning, purposefully embedded into the curriculum, with specific goals, achievements and organisation (Hager, 2012; Jimoyiannis, 2012). Since ePortfolios are believed to provide opportunities for reflection, self-assessment and skills development, it is expected that effective ePortfolio implementation will enhance L2 motivation, self-regulation and English proficiency among learners.

To achieve this, a mixed-methods investigation is presented on the impact of a curricular ePortfolio in an ELT setting. After providing a brief literature review of the research on ePortfolio design and implementation within higher education curricula, this paper analyses the theoretical foundations of ePortfolio learning that can be linked to L2 acquisition theories. This is followed by a proposed learning design for practitioners to embed ePortfolios grounded on possible selves in an ELT curricular module. After presenting the study's hypothesis on the impact of short-term ePortfolio curricular implementation on L2 motivation, self-regulation and proficiency, its design and the methodology employed, the analysis of quantitative and qualitative data are outlined, wherein patterns among teacher and student responses are highlighted and linked to the existing research addressed in this paper. Based on these findings, conclusions are drawn, while the limitations of the research design are identified in the final section.

2. Literature Review

Despite the growth of ePortfolios within higher education, their role remains undecided (e.g., Housego & Parker, 2009), particularly in relation to short-term ePortfolio implementation in L2 acquisition. Studies examining the necessary conditions for ePortfolio implementation in higher education curricula (e.g., Bright, 2016; Guasch et al., 2009; Haggerty & Thompson, 2017) concur that this should align with the curriculum's overarching philosophy and assessment, add value and be purposeful. For this to happen, ePortfolio design and implementation require careful consideration.

Barrett (2007) defines an ePortfolio as a developmental process consisting of three components (content, purpose and process), with a system that uses electronic technologies as the container, allowing students and teachers to collect and organise portfolio artefacts in many media types

(audio, video, graphics, text), and using hypertext links to organise the material, connecting evidence to appropriate outcomes, goals or standards. Joyes et al. (2010) argue that ePortfolios will remain without purpose of alignment, and of secondary value in higher education, if certain threshold concepts are not considered at the following two levels.

At an institutional level, adequate support and training of the processes involved in its use should be provided, while ownership and construction of the ePortfolio need to be transferred to the student, as it is the process of preparing the ePortfolio that promotes active learning (e.g., Haggerty & Thompson, 2017; Hoesein, 2018; Hung, 2009). Training and support need to be timely and ongoing with both students and practitioners, while implementation cannot be *ad hoc* but needs to be supported.

At course level, an understanding of the purpose of its use and learning activity design is required to ensure effective ePortfolio practice. An ePortfolio should complement the existing curriculum rather than just add to the overall learning workload. Similarly, opportunities for self-directed and meaningful learning, personal growth, and skills development will only be fostered when the elements of construction, reflection, individuality and collaboration are activated within the ePortfolio learning activity design (e.g., Botterill et al., 2008; Jimoyiannis, 2012).

At both levels, the current literature exemplifies the detrimental impact of overlooking these thresholds. Limited understanding of the tool together with reticence and weariness to implement or use a new tool appear as barriers to ePortfolio implementation (e.g., Haggerty & Thompson, 2017; Ring et al., 2015). Time-management and workload are also noted as significantly prejudicial to ePortfolio integration (e.g., Lewis, 2017; Walton et al., 2016; Zinger & Sinclair, 2014), as a substantial amount of time is required to master a new web-based system, while converting tasks to electronic format is skill-demanding (e.g., Cheng, 2008). Assessment difficulty concerning a lack of prioritisation when ePortfolios are not a summative requirement for students ensues questions of purpose and apathy (e.g., Haggerty & Thompson, 2017).

To address these thresholds, the system should underpin the development of assignments (artefacts), the course-level assessment of those artefacts, the student's ability to connect that work to one or more academic competencies, and the formative feedback on the quality of work selected for the competencies. Implementing a tool that supports the assessment goals of the university

through a learner-centred project, which can simultaneously support student-centred L2 objectives via future self-guides, as presented in this study, would address these caveats.

Studies (e.g., Lewis, 2017; Jimoyiannis, 2012) have underscored the significant constructivist perspective of learning involved in ePortfolios, based on reflective, evaluative and self-regulation approaches to learning across time, namely in relation to academic assessment when aligned with intended goals and learning outcomes. What is more, the reflective nature of ePortfolios appears to enable users to identify moments of change in their academic thinking and learning, improving skill development and technological capabilities (e.g., Madden, 2015; Munday, 2017), during self-assessment and when uploading assignments (Jimoyiannis, 2012; Rowley & Dunbar-Hall, 2012).

From an L2 perspective, practical techniques have been published (e.g. Arnold et al., 2007; Hadfield & Dörnyei, 2013) relating to the employment of various imagery techniques to increase the effectivity of future self-guides. Applying these techniques to an ePortfolio system would transform personal learning outcomes into visible objects in one electronic location, which may increase focus, leading to increased student engagement and a greater understanding of learner development towards a sense of self-actualisation (e.g., Munday, 2017). By linking these goals to the original teaching objectives of a learner-centred project, the process becomes meaningful and complete.

Cambridge (2008) refers to this usage as the Symphonic Self, which allows individuals to balance different aspects of their personal, professional and academic selves across time. Through an ePortfolio, students may continually rearticulate their ideas of self to others, generating new understandings and academic intentions, while they continually reflect on their current learning and academic goals (Nguyen, 2013). Learners must first envisage an L2 identity before setting goals and self-regulation strategies (Hadfield & Dörnyei, 2013). From an ELT perspective, it would be interesting to examine whether Cambridge's symphonic self could be supported and/or enhanced by future self-guides based on the following three stages from Hadfield and Dörnyei's (2013) imagery techniques: imaging identity, mapping the journey and keeping the vision alive (Appendices A, B and C).

Interventions on possible selves based on future self-guides using imagery techniques (e.g., Dörnyei & Chan, 2013) revealed significant associations between learners' future self-guides, intended effort and actual grades. Learners with a vivid L2 self-image were more likely to be

motivated and to take actions in language learning. Taking a different view, Papi & Abdollahzadeh (2012) concluded that simply having an imaginary picture of one's Ideal L2 self was insufficient to engage motivated behaviour. For instance, Chan (2014) argues that only when participants agree with the rationale behind pedagogical practice will the effects of imagery be enhanced.

In the field of self-regulated learning, scholars (Abrami et al., 2008; Abrami et al., 2013; Meyer et al., 2010; Upitis et al., 2010) have also tested the effectivity of ePortfolio implementation and utilisation. In total, the participants in these four studies were 115 school teachers, mostly from elementary schools, and their students (approximately 1932) from 26 urban and rural English school boards across Canada. Their findings provide important confirmatory evidence that teaching with ePortfolios had a positive impact on self-regulation, literacy achievement, and approaches to teaching and integrating technologies in the classroom, with students noted as enjoying the personalisation of ePortfolios that allowed them to take ownership of their studies.

In an ELT context, Cheng (2008) explored and analysed the problems encountered during the implementation of an ePortfolio system over a period of five years in Hong Kong. Students' main concerns were internet privacy and their inability to adapt information technology to preparing electronic artefacts. For teachers, time and skills for learning a new Web-based system, excessive workload caused by online assessment, and plagiarism were the subjects of their attention. Conversely, and in line with previous findings (e.g. Abrami et al., 2008, 2013), students acknowledged the system as a useful tool to present their personalised ability, to understand their individual deficiencies, to learn from others' achievements and feedback, as well as to plan for self-improvement.

While Chinese learners' plagiarising behaviour is beyond the scope of this investigation, the cultural implications of adapting students' own traditions of study to Western academic practice has generated certain interest within the scientific community (e.g. Gu & Brooks, 2008; Snowden, 2005). In the field of ELT within British higher education, Gu and Brooks' (2008) study on Chinese learners' adaptation to academic writing conventions is of relevance to this study. Although participants' perceptions of plagiarism in this study were challenged as they strived to fit in with the host culture and its academic conventions, the extent of change was dependent on students' continual self adjustment to the principles of these educational practices. Specifically, to master Western academic conventions, learners had to overcome incongruences stemming from

changes in cognition, identity and sociocultural values in a holistic manner given the dynamic nature of plagiarism. Upon this premise, it would appear that the constructivist and student-centred approach of ePortfolio learning and future self-guides would support the necessary reflection required to narrow this gap.

Zinger and Sinclair (2014) recommend that although integrating ePortfolios into coursework is a challenging yet rewarding process in an academic process, combining disciplines using ePortfolios offers an enhanced experience for students academically as well as professionally. It is on this premise that this study brings together motivational psychology (future self-guides), second language acquisition (ELT) and technology (ePortfolios) in the design and implementation of an electronic portfolio. Supporting the above recommendations, the proposed learning design could support the design of ePortfolio learning harnessing Hadfield and Dörnyei's (2013) imagery techniques on the organisational and pedagogical features of future self-guides, aiming to support students' constructive, reflective, individual and collaborative learning of an ELT curricular learner-centred project.

This brief review of the literature presents an outline of the recommendations to be considered in the design of future ePortfolio implementation. A list of potential thresholds and key elements have been identified and discussed, on which the construal of future self-guides based on imagery techniques is postulated as a sound L2 pedagogical framework that can underpin ePortfolio design within ELT curricular modules.

3. Research Question

With this review of the literature in mind, the following question will be answered in this study:

> RQ: To what extent will short-term ePortfolio curricular implementation based on the pedagogical framework of future self-guides boost L2 motivation, self-regulation and language acquisition gains among Chinese learners of English in higher education ELT?

4. Methodology

This paper is grounded in a six-week intervention programme conducted at a British university. The practitioners administered an ELT module, in which students had to submit an ePortfolio embedded within the curricular learner-centred project. The main objective of the study was to test and examine the design and implementation of an ePortfolio based on future self-guides in relation to motivational dispositions, self-regulated behaviour and academic language development. Teachers who imparted the intervention were invited to complete an open-ended feedback survey to assess the disposition of students throughout the intervention. These data were subsequently compared with students' results. A mixed-methods design was employed to attain a panoptic analysis of the themes under scrutiny. Questionnaires were conducted first, followed by focus group interviews and open-ended feedback surveys, to identify emerging themes from the quantitative findings and recurring patterns across an extensive dataset (Dörnyei & Ushioda, 2011, p. 62).

For the intervention to have value for students and teachers and to justify the time that it would take to complete, the ePortfolio learning design implemented differed from previous models in two ways. First, ePortfolio tasks were linked to the formative and summative written and oral assessments (Walton et al., 2016) included in an ELT research project skills module. In this module, students had to present (oral evaluation) and to submit (written evaluation) a research paper that comprised four sections: introduction, methods, results and discussion, henceforth, IMRAD. Second, ePortfolio tasks were underpinned on future self-guides based on the following three stages from Hadfield and Dörnyei's (2013) imagery techniques: imaging identity, mapping the journey and keeping the vision alive. To initiate the first phase of imaging identity (week 1), i.e. a plausible analysis and initiation of an Ideal L2 self, students had to consider research questions for their curricular project, an activity that was linked to a possible self tree that asked students to reflect on their personal and academic selves (Appendix A). To activate the second phase of mapping the journey, i.e. the desired Ideal L2 self through realistic strategies and plans (week 2), students had to set research objectives, an activity that included personal goal statements, goal breakdown and a study plan (Appendix B). To keep the vision alive and the continuity of performance evaluation through ongoing reflection and evaluation of phases one and two, i.e. stage

three, students had to submit a draft chapter of their project and a section of their project presentation (Appendix C) each week.

4.1 Sample

In total 10 practitioners, including the teacher-researcher of this study, and a sample of 120 undergraduate students who enrolled in the summer ELT course at the university agreed to participate in the study. The most recent figures published by HESA (n.d.), experts in UK higher education data and analysis, show that first-year non-domestic students studying wholly overseas for a UK higher education qualification comprised 21 per cent of the total intake of students in 2016/2017, the majority of which were Chinese (31%). Consequently, Chinese students attract the lion's share of most ELT higher education courses, and for this reason compose the bulk of participants in this study. Teaching experience was fairly homogenous, albeit with an overrepresentation of female and native English-speaking teachers (70%). Intervention teachers had previous experience teaching English as an L2, the majority of which (90%) had been teaching English for over five years, with previous experience administering ELT courses at the host university (80%). Each practitioner attended an intervention induction the week prior to the course commencing. In addition, intervention support was provided by the teacher-researcher of this study throughout the six-week intervention. Weekly class visits were carried out by the teacher-researcher to address any problems encountered with technology or activity design. Students also attended an intervention induction at project onset and were sent weekly reminders by the teacher-researcher to submit pending ePortfolio assignments or activities. Students were mostly aged between 20 and 25 (95%) and were of Chinese nationality (98%), with an average IELTS level 5 across the board in all skills (reading, writing, listening and speaking). A minority of students (9%) spoke an additional language to their L1 aside from English. Gender distribution favoured female (63%) over male learners (37%).

4.2 Instruments

Learner motivation and self-regulation were measured through quantitative data collected through an academic engagement questionnaire, which consisted of three parts and 51 items. Participants had to answer closed questions on 6-point Likert scales, ranging from 1 (strongly agree) to 6 (strongly disagree). Parts 1 and 2 comprised 51 items that assessed motivation and self-regulation. Learner motivation was assessed using the L2MSS scale and additional items taken from scales

validated in previous studies (Abrami et al., 2013; Asker, 2012; Dafei, 2007; Dörnyei & Chan, 2013; Hung, 2015; Iwaniec, 2014; Taguchi et al., 2009; Teng & Zhang, 2016; You & Dörnyei, 2016; Waller & Papi, 2017). In total, 40 items measured a total of eight motivational traits: criterion measures (e.g., "I am prepared to invest a lot of time on improving my English"), Ideal L2 self (e.g., "when I think of my future career, I can imagine myself using English"), ought-to self (e.g., "my parents believe that I must study English to be an educated person"), instrumentality promotion (e.g., "I will be able to make a lot of money with a high level of English proficiency"), instrumentality prevention (e.g., "I have to study English; otherwise, I cannot be successful in my future career"), attitudes towards learning English (e.g., "I enjoy learning English"), feared self (e.g., "it will have a negative impact on my life if I do not improve my English"), and English self-concept (e.g., "I am always able to get my ideas across when I write in English"). The internal consistency of these eight subscales reported Cronbach Alpha values that varied between .534 and .822 from pre-test to post-test scores, respectively. Self-regulation was examined through 11 items (e.g., "I remember the mistakes my teacher points out to me, and I try not to make them again", "I set my own learning goals, I decide what to learn", "I evaluate my own work, I look at my work to see if it is good or needs improvement"), taken from scales validated in prior self-regulated learning studies (e.g., Iwaniec 2014). The internal consistency of this subscale reported Cronbach Alpha values that varied between .822 and .886 from pre-test to post-test scores, respectively. Students answered background questions, including age, nationality and age onset of English learning in the final section (Part 3) of the questionnaire.

ELT summative course evaluations provided the data to evaluate the effects of the intervention on L2 acquisition. Students submitted a total of 16 summative assessments in relation to writing, reading, speaking, listening and research project skills. Marking criteria adhered to the official ELT grading standards established by the university. All tasks were double-marked by the group teacher and moderated by the ELT course director and/or manager before a final grade was awarded.

To test the design and praxis of an ePortfolio grounded on the theoretical framework of future self-guides within the institutional curriculum, it was implemented within the ELT IMRaD research project skills module. The IMRaD coursebook consisted of six units and 11 ePortfolio components, which were administered as a six 180-minute weekly programme. The first three components

addressed imaging identity (Appendix A), followed by two components on mapping the journey (Appendix B) and six components on keeping the vision alive (Appendix C), all taken from Hadfield and Dörnyei (2013). Each participant had complete ownership of an electronic portfolio, to which they had to submit each completed component.

Students took part in focus group interviews while teachers completed an open-ended survey on their reflections concerning the design and implementation of the ePortfolio, and whether this had influenced learner motivation, self-regulation or L2 development. This process provided the qualitative data through which quantitative findings were triangulated, to examine and verify findings from both stakeholders' perspectives. All names were replaced by numbers for extracts from the focus group interviews and open-ended surveys, to preserve respondents' anonymity. The research design and questionnaire obtained approval from the Ethics Committee of the School of Education.

4.3 Data Collection and Analysis

A quasi experimental two group pre-post mixed-methods study design was conducted at the university during the six-week ELT summer programme. On the first day, during the induction (week 1), all students were asked to complete the pre-test questionnaire and to set up an ePortfolio account. Students were again asked to complete the post-test questionnaire on the last day of the course (week 6). Administration of the IMRaD project module began in week 1 and ended in week 6. Upon completion of the ELT, course students were asked to participate in focus group interviews (week 6) and teachers were asked to complete an open-ended feedback survey (week 7).

Quantitative data obtained were coded and analysed by means of the SPSS 24 programme. As participants did not report significant pre-existing differences, variables were compared on pre-/post-test mean scores. For each academic skill (writing, reading, speaking and listening), a grade increase/decrease cumulative was calculated on students' summative assignments from their first to their last submission throughout the duration of the intervention. IMRaD project grade analyses were based on the single final grade awarded. Non-parametric tests were performed to compare L2MSS, self-regulation and L2 acquisition variables, as the test failed normality in some of the cases.

Upon completion of the ELT programme (weeks 6 and 7), a total of 30 students took part in focus groups interviews, with between four and seven students in each cohort, and nine intervention IMRaD project teachers, including the teacher-researcher of this study, completed an open-ended survey, all of which allowed this study to analyse how students and teachers felt about the design and implementation of ePortfolios, and whether they thought it had had an impact on learner motivation, self-regulation or L2 acquisition. Students were asked 13 semi-guided focus questions and tutors were asked a total of nine open-ended questions, which addressed the concepts under investigation in this study, i.e. motivation, self-regulation and ePortfolios, prompting them to reflect on the positive and negative aspects of the intervention (refer to Appendix D for guided questions). Qualitative data were a total of 140 minutes recorded taken from seven focus group interviews, resulting in a corpus made up of 17,041 words, and a total of nine surveys, resulting in a corpus made up of 2,959 words. Data were transcribed and analysed using NVivo 10 qualitative analysis software. The procedure of thematic content analysis and constant comparison was employed to search for patterns in the text that ordered the data into categories (Doiz et al., 2014, p. 121). To this end, discrete ideas expressed by respondents in each answer (tokens) were identified, and these ideas were then classified under the general themes of positive attributes or negative attributes. Percentages were used as a basis of comparison among themes, categories and subcategories.

5. Results

Analyses were conducted on the effects of the intervention, with the initial hypothesis being that short-term ePortfolio curricular implementation would have a positive influence on L2 motivation, self-regulation and acquisition gains. To follow, quantitative data are presented first from students, followed by qualitative data from students and practitioners.

5.1 Quantitative Findings

To begin with, students reported a strong positive correlation ($p<.001$) between self-regulation and L2MSS criterion measures ($r = .65$, $n = 120$, $p< .000$), Ideal self ($r = .67$, $n = 120$, $p< .000$), ought-to self ($r = .53$, $n = 120$, $p< .000$), promotion ($r = .61$, $n = 120$, $p< .000$), prevention ($r = .51$, $n = 120$, $p< .000$), attitudes to English ($r = .61$, $n = 120$, $p< .000$) and English self-concept ($r = .41$, $n = 120$, $p< .000$). Regarding CoD (coefficient of determination), self-regulation helped to explain

between 16 to 45 per cent of the variance in participants' scores on the aforementioned L2MSS variables (see Figure 1), with Ideal L2 self and criterion measures registering the highest variances at 45% and 42%, respectively.

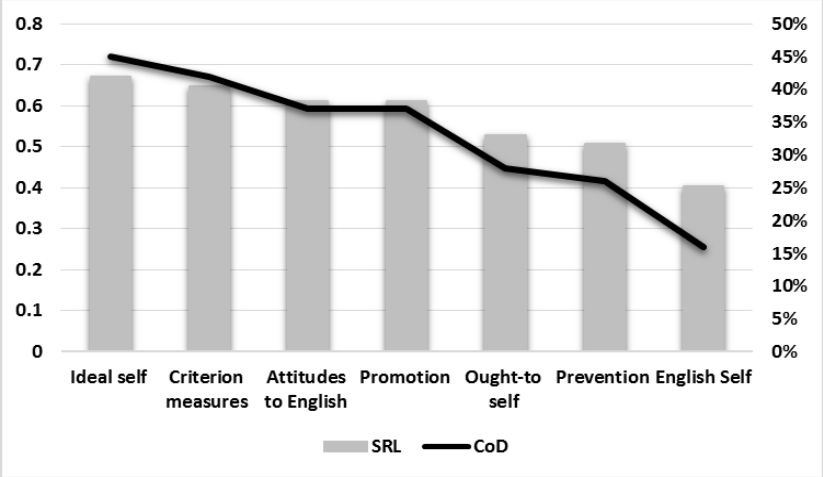

Figure 1. Significant rho Correlations among L2MSS and Self-Regulation Variables

A Wilcoxon Signed-Rank Test pre- and post-test means for L2MSS and self-regulation variables revealed a significant reduction in L2MSS promotion (z = -2.18, p< .029), prevention (z = -2.13, p< .033), and attitudes to English (z = -3.21, p< .001) variables, with a small effect size (r = between .2 to .4). In contrast, the Wilcoxon Signed-Rank Test revealed a significant increase in English self (z = -4.03, p< .000), with a small effect size (r = .4). Figure 2 below summarises the pre-test and post-test means of the experimental group for L2MSS variables.

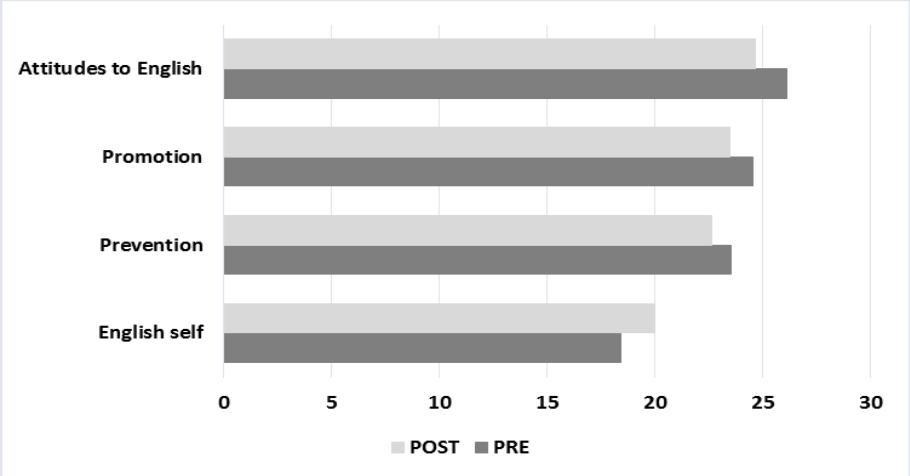

Figure 2. Significant Pre- and Post-Test Measures on L2MSS Variables

A Wilcoxon Signed-Rank test was run to test for differences as regards the impact of ePortfolios on academic language acquisition. The independent variable was the intervention group. The dependent variable was means scores on L2 acquisition variables, calculated from the official summative assessments submitted by participants. Tests conducted on the five L2 acquisition variables revealed a significant increase in the scores for writing gains (z = -3.45, p< .001), with a small size effect (r = .1) and IMRaD scores (z = 9.47, p< .000), with a large size effect (r = .5). Conversely, speaking reported a significant fall (z = -2.60, p< .009, with a small size effect (r = .2). Figure 3 below summarises these findings.

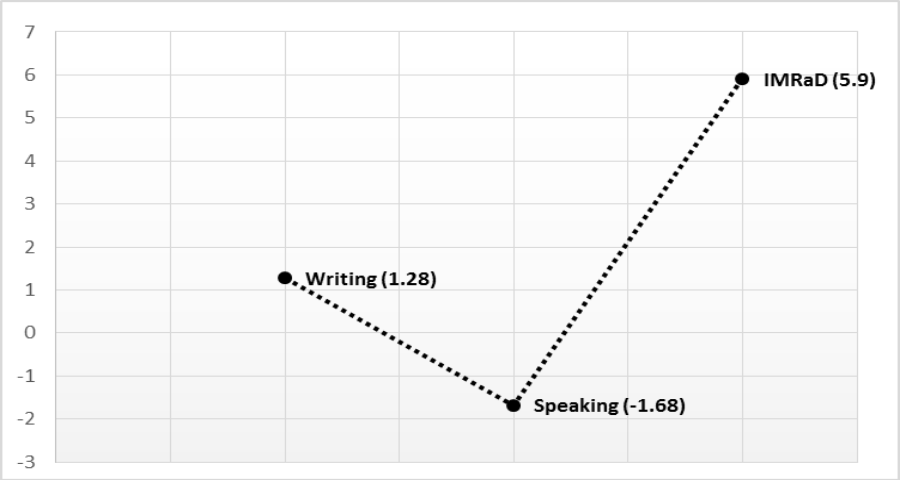

Figure 3. Significant Results on Academic and L2 Acquisition Gains

5.2 Qualitative Findings

In total, a cohort of 30 students and nine intervention teachers' comments were categorised into three main thematic concepts: motivation, self-regulation and ePortfolios. Broadly speaking, comments were varied regarding positive and negative attributes (see Figure 4), with the thematic category of motivational content garnering the most remarks overall, but with comments on the aspects that activated self-regulation and ePortfolio dispositions being consistently higher in comparison to the negative attributes.

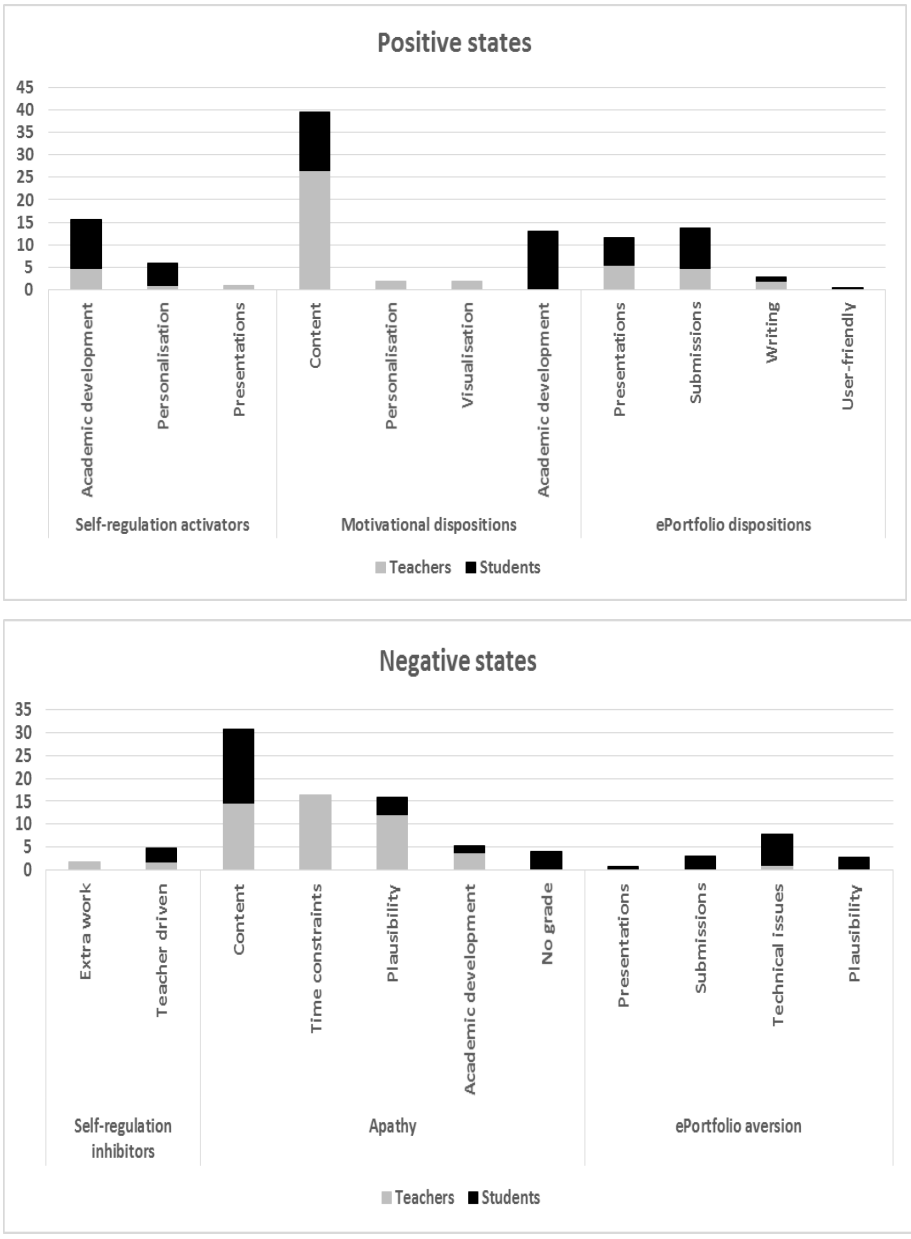

Figure 4: Summary of Student and Teacher Qualitative Feedback

The most prominent spike in tokens within teacher feedback related to the positive motivational attribute of content (27%). Most teachers felt that various components were effective in generating interest and visible cognitive development in the classroom. Many considering the study plan activities to be extremely engaging and initiators of reflection. As a rule, teachers perceived that students enjoyed the ePortfolio activities as they allowed learners to gain and improve on skills that were required for their summative assessments, while addressing learning thresholds, and is exemplified in the quotes below.

> The short and long-term planning components were excellent. I believe that some students experienced a 'eureka' moment while working on those components. (Teacher 2)
>
> The components that helped students practise different skills such as weekly presentations and those that were related to their real-life experiences such as transcribing their favourite song, were really engaging and inspired visible confidence and motivation in the classroom. (Teacher 8)

For students, however, the negative motivational attribute of content garnered the most tokens (16%). Comments on the overrepresentation of writing tasks included within ePortfolio content was a distinct negative aspect for the majority of students (9%). It should be noted, however, that the ratio of these comments was significantly inferior to those made on how the intervention had helped improve their English skills (13%), which corroborates quantitative findings on writing and IMRaD gains. The following quotes illustrate some of the ideas expressed by interviewees on these subcategories:

> Writing the project drafts I didn't enjoy and sometimes this was not clear for me, and I did it wrong when I write the report I want to write it at the same time not separately. (Student 6)
>
> It was not useful and was a lot of work at times writing the story, and also the drafts were a lot of work and difficult to finish. (Student 16)

Opinions were manifold on motivational dispositions, and it should be noted that although teachers' comments on content were more positive (27%) than negative (14%), teachers felt that, as in previous studies (e.g., Cheng, 2008), issues concerning time constraints and plausibility were detrimental to learner motivation. A component was deemed ineffective (12% of tokens) when it lacked relevance or was considered too linguistically or conceptually challenging for students to complete. This observation was also mirrored in students' comments on apathy generated by issues of plausibility (4%). These learners reiterated the fact that learners need to see the benefit of taking part in an activity or project in order to feel motivated to pursue an objective; otherwise, it fails to confer credibility, as echoed in Chan's (2014) study. This negative aspect was further compounded by remarks (4%) on the ungraded aspect of the intervention. Students felt that not being awarded a grade for their ePortfolio resulted in this aspect of the IMRaD project being pointless. In

response, teachers expressed a need to have a clearer understanding as to how each ePortfolio component connected to each IMRaD task, as only then would they be able to dissipate their students' doubts and re-motivate learners to complete the ePortfolio. Some teachers (17% of tokens) also felt that there was insufficient time to address the content demands of the curricular IMRaD project course objectives and the intervention successfully, and therefore, one had to be completed in detriment of the other. Interestingly, however, teachers suggested retaining ePortfolio components while certain curricular course objectives could be excluded or assigned as self-study. However, these negative remarks may be correlational to the low implementation of ePortfolios (only 28% of students submitted an integral electronic portfolio), and its consequent lower-than-expected effects on learner motivation, self-regulation and L2 gains. The following extracts underscore these observations:

I was comfortable with the materials and the objective of the programme. The problem was that the students were struggling with the core programme of the project for a number of reasons, so it was difficult to balance the need to follow the research programme with the need to actively steer each group in the right direction for the assessed task. (Teacher 3)

I wish there was more time to explore the intervention programme. Some components had to be rushed due to time constraints. It needs more contact time. Perhaps some parts of the IMRaD project class could be learnt autonomously, while the time gained would be used for the ePortfolio and exposing those missing links between it and the project class' primary research. (Teacher 2)

Students will be interested if students see the benefit of the intervention. If they know the benefit or their weakness and how the intervention can make them improve, they will be interested. (Student 12)

Because you know Chinese students, because this thing is not necessary to do and has no mark or assessment then this is not important and goes to the bottom of my pile. (Student 13)

Self-regulation states generated significantly less tokens, the majority of which (teachers 5% - students 11%) were linked to the developmental aspect of self-regulation triggered by ePortfolio implementation. In opposition to the foregoing observations on the apathy generated by time constraints, teachers felt that time restrictions during the IMRaD project module had supported the development of self-regulation. The fact that components had to be completed and submitted on occasion in students' own time, enhanced individual reflection and self-regulation beyond the classroom, which teachers found educationally insightful. An opinion firmly corroborated by interviewees in the focus groups (11%) who also felt the intervention had heightened self-regulation through the process of reflection. Similarly, prior remarks on the negative motivational issues of plausibility appear to have fostered personal professional development in some teachers, who claimed that finding a nexus between certain ePortfolio components and the IMRaD course aims in the classroom promoted professional growth. As in previous studies (Cheng, 2008; Meyer et al., 2010), the personalised aspect of ePortfolios also generated positive comments among teachers (1%) and students (5%), particularly in relation to personal mapping strategies. Students found that components such as the study plan offered strategies that supported the structure and planning of their studies and assignment deadlines throughout the course, while teachers highlighted the personal aspect of the components to be of significance to the activation of self-regulation and general individual awareness during the course. Below are a few quotes that describe teachers' observations with regard to this category:

> The intervention complemented teaching objectives. It gave IMRaD project classes more depth and exposed another layer of the teaching and learning process. Sometimes the link between a component and a lesson was not very clear to students and finding that link has helped to develop my teaching practice. (Teacher 2)
>
> In some ways, time constraints guided them [students] into looking things up for themselves and thinking about how they could finish the task in their own time. (Teacher 4)
>
> It requires us to finish the work on time and reflect on the component deadlines in a very short time. I reviewed my presentations from week to week. (Student 16)
>
> The study plan helped to organise your homework and make a list to have clear what you have to do. (Student 19)

However, only teachers (4% of tokens) considered these time constraints to be detrimental to self-regulation, as students were reluctant to complete activities regarded unnecessary as homework. In contrast, both teachers (2%) and students (3%) opined that learners were too dependent on teacher instruction throughout, working against the activation of self-regulation.

The last theme to be examined was the positive and negative attributes of an ePortfolio. Specific observations noted by teachers and students in relation to behaviour that prompted or averted ePortfolio interaction during the intervention were mostly positive, particularly among teachers. Indeed, only one negative comment was identified by practitioners concerning technical issues when uploading components online. Students, on the other hand, considered this aspect to be the one that generated most aversion (7%). This was attributed, however, to software incompatibility and not to the ePortfolio per se, which to a certain degree corroborates teachers' observations. In most instances, teacher (13%) and student (17%) feedback endorsed ePortfolio usage. These remarks were attributed to the three categories of presentations (6%), submissions (teachers 5%, students 9%) and writing (teachers 2%, students 1%). Most respondents concurred in that students felt motivated to upload their components, particularly the IMRaD project writing drafts and presentations. One observation supported, to a certain extent, in the quantitative findings of this study, which reported a significant increase in L2 writing and IMRaD scores, but not in regard to L2 speaking gains. Both teachers and students felt that submitting components to an ePortfolio conferred the task a sense of officialdom, while having a visible record of completed modular activities had a positive effect on motivation. In general, it was evident in respondents' comments that they identified ePortfolio submission engagement as a practice that boosted motivation among students at various points during the intervention. That said, it should be noted that although to a lesser degree, some students (3%) considered this visibility to be detrimental to self-efficacy, while others (3%) continued to question the plausibility of completing an ePortfolio, which again reinforces the importance of participants understanding the purpose of ePortfolio implementation. The following comments exemplify these categories:

> I did form the impression that the drafting of work and the progress presentations were taken more seriously because of the submission requirement to their ePortfolio. These submissions helped students to view the drafts and presentations as part of the learning journey. (Teacher 3)

Progress presentations were very motivational as students were able to recognise how their English and presentation skills were improving. They also managed to have some moments of active listening. (Teacher 5)

Submitting the presentation because it can show us how to improve what is good and bad. It's useful because our pronunciation is not good and we can improve it and the listening of words we don't know. It was a good feeling when I saw myself. Also, we want to do it better than before. I can see a difference, in my first presentation, I was so nervous, but in presentation three, I'm more relaxed, which makes me feel good. Uploading the presentations and the writing drafts let us improve ourselves. (Student 24)

I think it would be better if it were an app and better on the phone not on the laptop or a website, because it's difficult to upload things sometimes when you have an iPhone or phone not compatible. (Student 26)

6. Discussion and Conclusions

The present study set out to test and examine the benefits of short-term ePortfolio curricular implementation within higher education ELT course objectives. Although ePortfolios are continually presented in the literature as having a restorative quality within higher education, it is important that we address their design and implementation in a pedagogically valid curriculum that endorses its benefits within short programmes and the L2 classroom. To do this, the theoretical framework of future self-guides was applied to an ePortfolio system that was embedded within a summative ELT learner-centred research project. The impact of its design and implementation was then analysed in relation to L2 learner motivation, self-regulation and language development.

Although the overall impact of ePortfolio implementation proved less significant than hypothesised in terms of English language development, motivation and self-regulation, quantitative findings reported an increment in English self-concept, writing and IMRaD project skills among Chinese learners of English. In other words, despite the short implementation, ePortfolios appear to have boosted motivation as regards students' perceptions of their L2 present selves, while they significantly supported the positive attainment of certain academic goals. From an L2 perspective, this endorses our hypothesis that ePortfolios can work in symbiosis with future

self-guides that employ imaging techniques within a learner-centred curricular project. The design and implementation presented in this study, to a certain extent, supported learners in the constructive scaffolding of their learning through their abilities to reflect and evaluate (e.g., Lewis, 2017) through possible selves. This design allowed students to balance different aspects of their personal and academic selves across a brief period of time, enhancing what Cambridge (2008) refers to as the symphonic self.

Respondents' qualitative remarks continually identified submissions, presentations and writing drafts as activities that led to noticeable motivational boosts. In most instances, these comments underscored that it was productive for learners to visualise their linguistic and academic progress through ePortfolios, in order to evaluate and engage in self-repair strategies that led to self-regulated development and L2 improvement. This observation supports previous research (e.g., Dörnyei, 2009; Holec, 1985; Robinson & Udall, 2004) on the positive impact of perceived progress and awareness in the learning process. In other words, ePortfolios seem to have fostered academic development and growth among learners, and initiated learner engagement at certain points through the L2MSS dimension of English self-concept. The ability to offer students a visible record of their learning efforts through which they could gauge their L2 progress validated the potential for identity construal through ePortfolios, which consequently resulted in L2 acquisition gains. Furthermore, English self-concept reported a strong positive correlation with self-regulation, inferring that both motivation and self-regulation were enhanced through ePortfolio implementation. Contrary to the positive qualitative feedback offered on ePortfolio presentations, L2 development did not extend to speaking acquisition, which reported a decrement. This outcome may be attributable to an underrepresentation of speaking components in the programme, which is why future interventions should include a larger number of speaking activities to obtain better results in this key language skill.

These benefits, however, did not extend to L2MSS attitudes to English, promotion and prevention. This was possibly due to time constraints and plausibility according to teacher and student feedback, and in line with implementation caveats identified in previous studies (e.g. Cheng, 2008). However, it is worth noting that this also may have been due to the brief duration of the intervention (six weeks). Inasmuch as quantitative and qualitative findings indicated that having a tangible vision of the present had a salient impact on participants, insufficient time and scepticism

reduced the effectiveness of ePortfolios. Indeed, it is only when all parties concerned agree and adhere to the rationale behind ePortfolio implementation that the educational effects may be enhanced (e.g., Chan, 2014; Haggerty & Thompson, 2017; Ring et al., 2015).

Based on the above findings, it would be feasible to draw the following three conclusions from this study. The first relates to the relevance of ePortfolio implementation in short courses and the L2 classroom. Inasmuch as this study provides empirical evidence on the benefits and relevance of short-term ePortfolio curricular implementation, it adds further support to the existing literature (e.g., Cheng, 2008; Joyes et al., 2010) in the recommendation of its usage as a viable learner-focussed platform that can effectively be used as a pedagogic tool, provided that it is embedded in curricular teaching and learning activities. In this vein, the results of the present study endorse the design of electronic portfolios based on the theoretical L2 framework of future self-guides, upon which curricular learner-centred projects are embedded. The fact that ePortfolio implementation had a significant effect on motivation and linguistic proficiency, albeit to a lesser degree than expected due to the short time span of the intervention, aligns with extant empirical research (e.g., Cheng, 2008) on the positive impact of electronic portfolios on students' L2 progress.

As in previous studies (e.g., Cheng, 2008), the second conclusion concerns learner participation and collaboration. The fact that only 28% of students submitted an ePortfolio in its entirety highlights a hurdle to be overcome in future studies. Qualitative remarks seem to attribute this result to time constraints, plausibility and the linguistic and technical demands of some ePortfolio tasks, which were difficult for students to complete. Although support was provided from the onset and during the investigation, it appears that more time should be devoted to conveying its relevance and objectives to participants. Participants need to understand why they are performing a learning task, and what they will achieve in doing so.

Thirdly, there is a need to review the reluctance of the participants to play an active role in ePortfolio implementation. As identified in the current literature (e.g., Haggerty & Thompson, 2017; Lewis, 2017; Ring et al., 2015; Walton et al., 2016; Zinger & Sinclair, 2014), limited understanding and issues concerning time and workload continue to be significantly detrimental to the successful implementation of electronic portfolios. Any attempt to conduct research within an authentic classroom setting becomes a complex undertaking, particularly when it includes

various teachers and cohorts of students. For this reason, it is imperative that teaching peers understand the relevance and urgency of sound empirical initiatives in the classroom, so that they are on board from the start. This means that research is primary, not secondary, to pedagogical progress. Therefore, it is only through research that teachers can empirically improve pedagogical practice (rather than intuitively). As a result, the implication of this study is that higher education institutions should promote the practice of academic research as part of curricular teaching objectives.

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Appendix A – Imaging Identity

1.4: Research Questions and Ethics

In this session you will choose a research question for your project and consider the best method to employ to answer it. You will also be introduced to the importance of ethics in research.

Task 1: Possible Self Tree

Individually complete the possible Self tree provided (Hadfield & Dörnyei, 2013) following the guidelines below:

1. **Roots:** write on the roots the people, places, things, or situations that have influenced you to choose the degree programme you are going to complete at university.
2. **Tree Trunk:** in the tree trunk write at least three reasons why studying this degree in English at university is important to you.
3. **Branches:** write on the branches the qualities that describe the perceptions that society holds about the degree you are going to complete at university.
4. **Leaves (strengths and weaknesses):** in the leaves write the positive qualities (strengths) that completing a degree in English will bring to you as an individual. Write the ones that you currently have in one colour and the qualities that you hope to develop (weaknesses) in another colour, e.g., give a successful presentation in English.
5. **Bad influences (threats):** around your tree draw negative symbols and write down words or brief descriptions that might prevent you from successfully completing your degree in the UK, e.g., lightening or bugs may represent not doing your homework or lack of confidence.
6. **Good influences (opportunities):** around your tree draw positive symbols and write down words or brief descriptions of all the opportunities completing this degree in English will bring you, e.g., a sun may represent getting a well-paid job.

Once you have finished, give your tree a heading, take a picture and upload it to your **ePortfolio**.

Task 2: Group activity

Academic Research consists of:

- asking a question that nobody has asked before;
- doing the necessary work to find the answer; and
- communicating the knowledge you have acquired to a larger audience.

Research starts with a **research question** (RQ).

For your project, your group need to decide on one of the following questions that interests the whole group *[each group should choose a different RQ].*

RQ1 – What employment opportunities are there for X* graduates?

RQ2 – What perceptions do the general public have of degrees in X*?

RQ3 – Why do students choose to study X*?

RQ4 – Why is studying X* important?

*replace X with your degree subject

Appendix B – Mapping the Journey

Task 2: Setting research objectives

Top-level athletes, successful business-people and achievers in all fields all set goals. Setting goals gives you long-term vision and short-term motivation. It focuses your acquisition of knowledge and helps you to organize your time and your resources (Hadfield & Dörnyei, 2013). In groups, list your Project course goals below and then complete how you will achieve these objectives during the course.

These are our Project class goals. By the end of the course, we will be able to…..
To do this, we will…

Now it's your turn. Individually, complete the table below with 5 personal English course objectives and then list how you will achieve these objectives.

These are my additional personal English course goals. By the end of the course, I will be able to….
To do this, I will…
How many hours a week will you devote to self-study to achieve these personal course goals?

Task 3: Goal breakdown

Spending too much time contemplating the huge distance between where you stand now and where you want to get to can be intimidating and demotivating. Therefore, the secret is to break your big goals down into lots of smaller steps that will gradually get you to where you want to be and focus on them (Hadfield & Dörnyei, 2013). In pairs, list your weekly Project class goals below and then complete how you will achieve these objectives this week.

These are our Project class goals for this week. By the end of the week, we will be able to…..
To do this, we will…

Now it's your turn. Individually, complete the table below and include how you will break down one of your 5 personal English course goals into smaller goals and then list how you will achieve these objectives this week.

These are my additional personal goals for this week. By the end of the week, I will be able to….
To do this, I will…
How many hours this week will you devote to self-study to achieve this week's personal English goals?

Task 4: From goals to study plans

A goal is motivating as an ultimate destination, but to reach that destination you need a route map of exactly how you are going to get there, although of course the route may be negotiated as you move along it. First it involves the breaking down of short-term or weekly goals into a series of concrete tasks. Then, it entails the ordering and prioritising of the tasks into a weekly study plan; a worksheet that must be updated and reviewed every week (Hadfield & Dörnyei, 2013). To follow, you will find a Personal Weekly Study Plan for week 2. Based on this study plan and the weekly goals you have set in tasks 3 and 4, complete the personal study plan below into a series of concrete tasks. Once you have finished, sign it at the bottom and ask a classmate to witness and sign your Study Plan.

Appendix C – Keeping the Vision Alive

2.3: Progress Presentations

In your groups, you have 5-10 minutes to present your research progress to the class. You are allowed a maximum of 3 slides (optional). Your presentation will be recorded so that you can upload it to your **ePortfolio.**

This week's focus is **METHODOLOGY**

As you listen to each other, think of constructive comments or questions to ask the presenters to help them with their research. Also make notes on good ideas that will help you with your research.

2.4: Writing Session

In these writing sessions you will be drafting a section of your final research report. This draft **MUST** be included in your final submission and uploaded to your **ePortfolio**.

Signed:

Date:

Assessment Task 2 – to produce a write up of your research methodology. This section will provide information on ethics, your research question, your data source/participants, and how the data has been analysed.

Appendix D – Qualitative Data Guided Questions

Focus Group Interview Questions

1. Did you enjoy completing your ePortfolio components? Why/why not?
2. Which component did you like the most? Explain.
3. Which component did you like the least? Explain.
4. Which component did you find the most useful? Explain.
5. Which component did you find the least useful? Explain.
6. What do you think is the main thing you have learnt from completing your ePortfolio?
7. Do you think completing an ePortfolio has had a positive or negative effect on your academic performance? Explain.
8. Do you have any suggestions on how the ePortfolio could be improved?
9. Did you feel motivated to complete your ePortfolio? Why/why not?
10. What motivated you during the ePortfolio intervention? What would motivate you to participate in the activities more?
11. Did you have any problems or difficulties completing your ePortfolio? Explain.
12. Would you like to continue using your ePortfolio? Why/why not?
13. Would you recommend this type of ePortfolio to other students? Why/why not?

Teacher Feedback Survey

1. Were there any ePortfolio components you did not present to your students? If so, can you explain why?
2. Which ePortfolio components do you think worked well in the classroom? Explain why.
3. Which ePortfolio components do you think did not work well in the classroom? Explain why.
4. Did the ePortfolio intervention complement your teaching? Why/why not?
5. Do you think the ePortfolio had any effect on students' motivation? Why/why not?
6. Do you think the ePortfolio had any effect on self-regulation? Why/why not?
7. Do you have any suggestions on how the ePortfolio intervention could be improved?
8. Please describe any problems or difficulties you had administering the ePortfolio intervention.
9. Would you use any of the ePortfolio intervention again in your teaching? Why/why not?

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Call for Papers (CFPs) as a Growing Academic Genre: A Cross-Disciplinary Study of Established and Emerging Conferences

Mahmood Reza Atai

Department of Foreign Languages, Kharazmi University, Tehran, Iran

Aram Mahdavian Shayegh

Department of English Language, Islamic Azad University, Qazvin Branch, Qazvin, Iran

Biodata

Mahmood Reza Atai is a professor of applied linguistics at Kharazmi University, Tehran, Iran. He is also an editor of the *Iranian Journal of Applied Linguistics* and has served as editorial board member in several international/national journals. His major area of interest is ESP and he has published on the relevant themes extensively. His recent papers appear in RELC Journal, Journal of Research in International Education, Teacher Development, Journal of Educational Computing Research, System, Journal of English for Academic Purposes, and English for Specific Purposes.

Email: atai@khu.ac.ir

Aram Mahdavian Shayegh got her MA in TEFL from Islamic Azad University, Qazvin, Iran. She is currently teaching English at Iranian English language institutes. Her areas of interest are ESP, discourse analysis, and EFL methodology.

Email: aram.mahdavianshayegh@gmail.com

Abstract

Genre studies in general and promotional academic genres in particular have gained importance over the past few decades. Call for Papers (CFPs) as one type of academic genres have attracted attention since they play an essential role in gathering academics, researchers, experts, and students

in conferences. Thus, this study tried to explore disciplinary variations in CFPs of emerging and established conferences across hard and soft sciences on the one hand, and to examine whether CFPs of these conferences could be considered as a member of academic promotional genres on the other hand. To this end, a corpus comprising 160 CFPs of established and emerging conferences of hard sciences (Engineering and Medicine) and soft sciences (Applied Linguistics and Social sciences) was compiled and analyzed based on Yang's (2015) model of generic move structure of CFPs. The results indicated that there is no significant difference between CFPs of emerging and established conferences of hard and soft sciences in terms of move structure. Moreover, the results indicated that CFPs of these conferences could be considered a member of academic promotional genres. Findings may have implications for conference organizers, postgraduate English for Academic Purposes (EAP) students, novice researchers, conference sponsors, conference presenters, field experts, EAP teachers, and academic writing students.

Keywords: Call for papers (CFPs), Established conferences, Emerging conferences, Genre, Academic promotional genre, EAP

1. Introduction

English for Specific Purposes (ESP) refers to "the teaching and learning of English as a second or foreign language where the goal of the learners is to use English in a particular domain" (Paltridge & Starfield, 2013, p.2). ESP is closely associated with genre analysis which is currently considered an important sub area of ESP teaching and research (Paltridge, 2013).

Over the past few decades, considerable attention has been paid to genre analysis and its implications for language teaching (Hyland, 2007). Various studies have been carried out to explore the rhetorical organizations of various genres including research articles (RAs) (Lin & Evans, 2012; Tessuto, 2015), abstracts (Lores, 2004), introduction (Samraj, 2005; Hirano, 2009; Sheldon, 2011), method (Peacock, 2011), results (Bruce, 2009), discussion (Basturkmen, 2012), visual discourse in scientific conference papers (Rowley-Jolivet, 2002),dissertation acknowledgements (Hyland, 2004), textual and visual characteristics of PowerPoint conference presentations (Atai & Talebzadeh, 2012), lecture closings (Cheng, 2012), Call for Papers (CFPs) (Yang, 2015), and student laboratory reports (Parkinson, 2017).

Among academic genre studies in the field of applied linguistics, Call for Papers as a crucial channel of communication in conferences has gained scanty attention. Although Yang (2015) examined the schematic structure and metadiscourse of CFPs, other aspects of this genre are still under-researched. Yang (2015) analyzed CFPs related to the discipline of applied linguistics but he did not examine the characteristics of this genre across disciplines. As conferences in all disciplines provide experts with a venue to advance their knowledge (Borg, 2015) and assuming that CFPs play an important role in communicating with the members of the corresponding discourse communities and stimulate academic research (Yang, 2015), exploring the genre of CFPs of other fields and comparing them may add to our knowledge concerning the nature of this genre further and can promise implications to researchers, conference organizers, and students. Since hard and soft sciences have their own CFPs and conference themes, this study attempts to investigate possible variations in this genre within and across disciplines.

Moreover, the literature on genre analysis has confirmed disciplinary and sub-disciplinary variations due to the nature of the field and whether and to what extent it has established itself in comparison with the neighboring sub/fields (Samraj, 2005).

Therefore, the present study explored the generic structure of the CFPs in established (i.e. conferences held annually for more than 11 years) and emerging (i.e. conferences held annually for 1 to 10 years) conferences within and across hard (e.g. engineering and medicine) and soft (e.g. applied linguistics and social sciences) sciences and examined whether CFPs of these disciplines can be considered a member of academic promotional genres incorporating elements of promotion in addition to those academic functions.

2. Review of Literature

2.1. Genre

There are different schools of thoughts and various approaches to analysis and explanation of texts including the Australian approach, the New Rhetoric approach , and the ESP school (Hyon, 1996).Since this study tries to compare the generic structure of CFPs of emerging and established conferences across hard and soft disciplines, we follow the ESP tradition and define genre as communicative events characterized by the social purposes and shared by the members of the discourse community (Swales, 1990). Accordingly, genres are viewed as oral and written texts

which are classified according to the formal properties and communicative purposes embedded in their social contexts (Hyon, 1996). Moreover, ESP genre studies have showed a tendency toward using genre as a "tool for analyzing and teaching the spoken and written language required of nonnative speakers in academic and professional settings" (Hyon, 1996, p.695).

2.2. CFPs

Nowadays, having access to fresh and newly-presented ideas and being informed of the latest developments in the fields of study is indispensable for academics and students. One way of connecting to this fast-changing academic world is attending conferences. According to Rodgers (2008), "conferences are at the forefront of modern communications whether this is for internal communications or as vehicle for communicating with key audiences (p. 2)". Furthermore, Borg (2015) believes that conferences are one of the ways of professional development which experts and professionals can make use of in order to expand their body of knowledge. Rowley-Jolivet (1999), one of the scholars who focused her attention on the genre of conference papers, highlighted some significant features of scientific conferences such as creating scientific communication networks, widening the scientific culture of the participants, and strengthening the social connection with discourse community.

Over the past few decades, significance of conferences and attending them have attracted the attention of academics and experts; however, without CFPs, "most of the written and spoken acts would not be easily or publicly circulated in academic journals and conferences" (Yang, 2015, p.39). Yang (2015) believes that CFPs could shed light on "the process of academic research production"; could be viewed as "catalyst genre which stimulate academic research"; and could serve as "gate keeper controlling the quality of contributions" (p. 40). In his work, Yang (2015) considered CFPs a part of genre chain for follow-up production in the process of organizing conferences. Genre chain is "a succession of genres ordered in a particular chronological sequence in which one genre is often a necessary antecedent to another" (Swales, 2004, p. 18). Moreover, Yang (2015) considers two major aims for CFPs: information giving and promotional. The former is related to announcement of conferences to academics and experts, underscoring new trends and knowledge, description of knowledge gaps, and directing resolutions for further study, whereas the latter is associated with marketing strategies to persuade more participants and contributors to take part in conferences and conventions.

Yang (2015) carried out a research to identify the generic structure of CFPs and proposed a framework with six moves. As Figure 1 illustrates, in his framework, Move 1 *Drawing attention* is necessary in CFPs since its purpose is to catch the attention of the readers and attract interest in further reading of the text. Move 2 *Identifying discourse community coverage* focuses on the scope of the conferences and "draws the boundaries of the explored knowledge and thus narrows both the focus and prospective contributions" (Yang, 2015, p. 44) which is similar to Swales' (1990) move Establishing a territory. Move 3 *Soliciting Contributions* refers to the information part in CFPs which mentions "technical regularities for prospective contributions to avoid future ambiguities" (Yang, 2015, p. 44). Move 4 *Presenting incentives for participation* refers to the promotional function of CFPs. Move 5 *Clarifying miscellanea* is associated with those information which are not "directly related to the academic events of the conference" (Yang , 2015, p. 45). Move 6 *Signing off* which is the last move related to "conference organizers which express their expectations of receiving contributions and meeting potential participants at the conference" (Yang, 2015, p. 46).

Move/ Steps	Definition
Move1: Drawing attention	Catch readers' attention to read the CFP
Step1.1 Announcing a novel leitmotif	Announce the main topic/ theme/aim/catchphrase
Step1.2 Presenting well-established brands	Present the organizations, venues, and dates
Move2: Identifying the discourse community coverage	Define the scope of the conference
Step 2.1 Addressing knowledge development	Examine current knowledge again in the conference
Step 2.2 Revisiting current knowledge	Examine current knowledge again in the conference
Step 2.3 Presenting underrepresented knowledge	Bring up new issues to explore the gaps in the literature

Step 2.4 Highlighting featured speakers	Present the keynote/plenary speakers to explore the above issues and attract contribution/ participation
Move 3: Soliciting contributions	Offer guidelines for contributions
Step 3.1 Regulating submissions	State rules and applications of acceptance and rejection
Step 3.2 Scheduling key dates	List important due dates for each step, esp. submission and registration
Step 3.4 Listing types of contribution	Provide different sessions for submitters to contribute to
Move 4: Presenting incentives for participation	Promote the conference to increase participation
Step 4.1 Inviting potential participants	Invite those who are interested in and would benefit from the conference
Step 4.2 Explaining registration procedures and benefits	Provide special rates to attract early-bird registration and membership
Step 4.3 Arranging additional activities	Arrange social or leisure activities to build up connection with academia
Move 5: Clarifying miscellanea	Supplement notices which are not directly related to academic events
Step 5.1 Acknowledging assistance	Thank people and organizations who offer help or resources
Step 5.2 Supplying contextualized notices	Remind readers of other supplementary things to attend to
Step 5.3 Suggesting websites	Encourage readers to visit websites for more information
Move 6: Signing off	Express best wishes and expectations of meeting up at the conference

Figure 1: CFP Move-Structure Framework (Yang, 2015, p. 43)

In Yang's study, the corpus was limited to the CFPs of the discipline of applied linguistics. Furthermore, possible variations in the move structure of this genre were not compared between hard and soft sciences. As each discipline has its own methodology and pedagogical practices and the use of CFPs helps the effective circulation of written and spoken presentations in academic conferences (Yang, 2015), in this study, we used his framework in order to investigate possible variations in moves of CFPs of established and emerging conferences across hard and soft disciplines to examine whether the nature of disciplines and the degree of their objectivity and methodological rigor may be considered as a source of variation in the move structure of this genre compared to Yang (2015). Moreover, conferences were divided into two categories of emerging and established ones to examine whether the history and background of conferences may influence the generic structure of CFPs. More specifically, we posed the following questions:

1. Is there any significant difference between CFPs of established and emerging conferences of hard sciences in terms of move structure?

2. Is there any significant difference between CFPs of established and emerging conferences of soft sciences in terms of move structure?

3. Is there any significant difference between hard and soft sciences in terms of move structure of CFPs of emerging and established conferences?

4. Can CFPs of established and emerging conferences of hard and soft sciences be considered an academic promotional genre?

3. Method

3.1. Corpus

Hyland (2006) points out that "disciplines can be seen as distributed along a cline, with the 'hard knowledge' sciences and 'softer' humanities at opposite ends" (p.240). Thus, in this study, applied linguistics and social sciences and humanities were considered soft knowledge disciplines whereas engineering and technology and medicine were considered hard knowledge disciplines. Also Hyland (2005) claims that disciplinary cultures display variations in terms of their methodologies and pedagogical practices to produce and disseminate their disciplinary knowledge and genre

analysis provides the opportunity to explore these variations within and across disciplines. Since the focus of this study is on comparing the generic structure of the CFPs in established and emerging conferences across hard and soft disciplines, the data were collected from the Internet. The CFPs were collected from five different websites, namely, TESOL, WikiCFP, ConAl, Linguistlist, and Conference –Service. TESOL is one of the reliable sources for professionals in applied linguistic field which was established in 1966 as an independent professional organization and WikiCFP is a semantic wiki for Call for Papers in science and technology. Also, ConAl, Linguistlist, and conference service are other reliable websites that provide experts, students, and scholars with details of conferences including CFPs. Thus, we made use of these websites for gathering 160 CFPs of established and emerging conferences published between 2015 and 2016. We operationalized established conferences as those being held annually for more than 11 years and emerging conferences as those being held annually for 1 to 10 years.

The corpus included equal numbers of CFPs from the four disciplinary fields of engineering and technology, medicine, applied linguistics, and social sciences and humanities.

The corpus consisted of equal numbers of CFPs (40 CFPs for each; 20 CFPs for established conferences and 20 CFPs for emerging ones) from these four disciplines with a total of 98819 words, an average of 617.61 words per CFP. The length of the texts ranged from 67 to 5053 words.

3.2. Analytical Framework

Yang's (2015) generic move pattern of CFPs was employed to investigate possible variations of CFPs across hard and soft disciplines (see Figure 1). CFPs may have information- giving and promotional aims. Bhatia (1993) argues that promotional genres are flexible in terms of the number and order of moves. Also, he holds that there is a degree of freedom in considering moves as obligatory or optional ones. Some scholars including Swales (1990) and Kanoksilapatham (2005) focused their attention on the frequency of obligatory and optional moves; however, it seems that no compromise is made on the exact frequency of moves as a standard norm for the classification. In this study, following Ding (2007) and Yang (2015), we considered those moves with over 60% occurrence in the corpus obligatory moves and the moves with less than 60 % occurrence optional moves.

3.3. Procedure

To investigate possible variations in CFPs across hard and soft sciences, the present study used Yang's (2015) framework of CFP genre analysis. In order to analyze move structure, patterns, we analyzed and coded all CFPs manually. In order to cross-check the coding procedures and ensure the reliability of data analysis, eight coded CFPs were selected randomly and the results were compared with the coding of an independent expert. Also, 10 percent of the corpus was coded by the researchers and two MA students of TEFL who were familiar with genre analysis so as to obtain inter coder reliability. The observed inter-coder reliability index, using SPSS software, was 0.97 which was considered a high degree of agreement among coders. In the next phase of the study, in order to identify moves and sub moves of CFPs across four disciplinary fields of applied linguistics, engineering and technology, social sciences and humanities, and medicine, we analyzed them. Finally, Chi-square tests were run to identify differences between CFPs of established and emerging conferences of hard and soft sciences.

4. Results

The purpose of this study was to investigate possible variations in moves of CFPs of established and emerging conferences across hard and soft disciplines and to examine whether these CFPs can also be considered members of academic promotional genres. This section provides answers to research questions 1 to 4.

4.1.1. Results of Chi-square Tests for Frequency of Moves in CFPs of Established and Emerging Conferences of Hard Sciences

In order to answer the first research question, the frequency counts and percentages of moves in CFPs of established and emerging conferences of hard sciences were computed as shown in Table 1.

Table 1. Chi-Square Test for Frequency of Moves in CFPS of Established and Emerging Conferences of Hard Sciences

	Moves											
	m1		m2		m3		m4		m5		m6	
	freq	%	freq	%	freq	%	freq	%	freq	%	freq	%
Engineering	20	100	15	75	20	100	12	60	20	100	1	5

Hard sciences	Established Engineering Emerging	20	100	7	35	20	100	14	70	19	95	0	0
	Medicine Established	20	100	10	50	20	100	16	80	20	100	1	5
	Medicine Emerging	19	95	4	20	20	100	15	75	18	90	1	5
	Total	79	98.8	36	45	80	100	57	71.3	77	96.3	3	3.8

Chi-Square value	12.723	
Df	15	
Asymp. Sig. (2-sided)	.624	
The minimum expected count	.71	
Cells with expected count less than 5	4	16.7%

As Table 1 illustrates, the frequency counts of move 3 (Soliciting contributions) in CFPs of established and emerging conferences of both fields are the same (20) which means that this move is present in the corpus of both disciplines. Also moves 1(98.8%) and 5 (96.3%) have the highest percentages in CFPs of Established and Emerging conferences of both fields; however, the frequency counts for other moves are not the same. In order to see if these discrepancies result in a difference in generic structure of CFPs of established and emerging conferences between these two fields a Chi-square test was used. Based on the results of Chi-square test (Table 1), it can be concluded that since the p-value at 15 degree of freedom is more than .05 (Asymp. Sig. (2-sided) = .624 > .05), there is no significant difference between CFPs of established and emerging Conferences of hard sciences in terms of move structure.

4.1.2. Results of Chi-Square Tests for Frequency of Moves in CFPs of Established and Emerging Conferences of Soft Sciences

In order to probe the second research question, the frequency counts and percentages of moves in CFPs of established and emerging conferences of soft sciences were computed as illustrated in Table 2.

Table 2. Chi-Square Test for Frequency of Moves in CFPS of Established and Emerging Conferences of Soft Sciences

		Moves											
		m1		m2		m3		m4		m5		m6	
		freq	%	freq	%	Freq	%	Freq	%	freq	%	freq	%
Soft sciences	Applied Linguistics Established	20	100	19	95	20	100	6	30	17	85	3	15
	Applied Linguistics Emerging	16	80	16	80	20	100	7	35	18	90	3	15
	Social Science Established	20	100	12	60	20	100	17	85	19	95	3	15
	Social Science Emerging	20	100	6	30	20	100	9	45	18	90	1	5
	Total	76	95	53	66.3	80	100	39	48.8	72	90	10	12.5

Chi-Square value	14.814		
Df	15		
Asymp. Sig. (2-sided)	.465		
The minimum expected count	2.24		
Cells with expected count less than 5	4	16.7%	

As Table 2 illustrates, move 1 (Drawing attention) and move 5 (Clarifying miscellanea) in the CFPs of Established and Emerging conferences of Applied Linguistics and Social science have the highest percentages (M1 = 95.0%) and (M5= 90.0 %). Also the frequency counts and percentages of Move 3 (Soliciting contributions) in CFPs of established and emerging conferences of applied linguistics and social science are 20 and 100% respectively. This means that move 3 is present in the corpus of both disciplines. Therefore, there is no significant difference between CFPs of established and emerging conferences of soft sciences in terms of the frequency of move 3. However, the frequency counts of other moves (M1, M2, M4, M5, and M6) in both fields are not the same. In order to see if these discrepancies result in a difference in generic structure of CFPs of established and emerging conferences between these two fields, Chi-square test was used. The results (See Table 2) indicate that the p-value for moves in CFPs of established and emerging

conferences of applied linguistics and social science at 15 degrees of freedom is more than .05 (Asymp. Sig (2-sided) = .465 > .05); therefore, there is no significant difference between CFPs of established and emerging conferences of soft sciences in terms of move structure.

4.1.3. Results of Chi-Square Tests for Frequency of Moves in CFPs of Established and Emerging Conferences of Hard and Soft Sciences

In order to answer the third research question, the frequency counts and percentages of moves in CFPs of established and emerging conferences of hard and soft sciences are summarized in Table 3.

Table 3. Chi-Square Test for Frequency of Moves in CFPS of Established and Emerging Conferences of Hard and Soft Sciences

		Moves											
		m1		m2		m3		m4		m5		m6	
		freq	%	freq	%	Freq	%	freq	%	Freq	%	Freq	%
Hard and Soft sciences	Engineering. Established (Hard)	20	100	15	75	20	100	12	60	20	100	1	5
	Medicine Established (Hard)	20	100	3	15	20	100	16	80	20	100	1	5
	Applied Linguistics Established (Soft)	20	100	19	95	20	100	6	30	17	85	3	15
	Social Science Established (Soft)	20	100	12	60	20	100	17	85	19	95	3	15
	Engineering Emerging (Hard)	20	100	7	35	20	100	14	70	19	95	0	0
	Medicine Emerging (Hard)	19	95	4	20	20	100	15	75	18	90	1	5
	Applied Linguistics	16	80	16	80	20	100	7	35	18	90	3	15

Emerging (Soft)												
Social Science (Soft)	20	100	6	30	20	100	9	45	18	90	1	5
Total	155	96.9	82	51.3	160	100	96	60	149	93.1	13	8.1

Chi-Square value	39.771	
Df	35	
Asymp. Sig. (2-sided)	.266	
The minimum expected count	1.47	
Cells with expected count less than 5	8	16.7%

As can be seen in Table 3, moves 1(96.9%) and 5 (93.1%) have the highest percentages in CFPs of established and emerging conferences of hard and soft sciences. Moreover, the frequency counts and percentages of move 3 (Soliciting contributions) in CFPs of established and emerging conferences of both hard and soft sciences are 20 and 100% respectively which indicate that this move is present in all CFPs of established and emerging conferences of these four disciplines. Accordingly, no significant difference was found in CFPs of established and emerging conferences of hard and soft sciences in terms of the frequency of move 3. However, the frequencies of other moves (M1, M2, M4, M5, and M6) in four fields are not the same. In order to see if these discrepancies result in a difference in generic structure of CFPs of established and emerging conferences of hard and soft sciences, a Chi-square test was run. The results (see Table 3) demonstrate that the p-value for moves in CFPs of established and emerging conferences of engineering, medicine, applied linguistics, and social science at 35 degrees of freedom is more than .05 (Asymp. Sig (2-sided) = .266>.05); therefore, there is no significant difference between CFPs of established and emerging conferences of hard and soft sciences in terms of move structure.

4.1.4. CFPs of Established and Emerging Conferences of Hard and Soft Sciences as an Academic Promotional Genre

CFPs as an academic genre have dual purposes. On the one hand CFPs provide information and on the other hand they try to attract and persuade more participants to take part in conferences which refers to the promotional purposes of this genre.

The fourth research question investigated whether CFPs of established and emerging conferences of hard and soft sciences could be considered a member of academic promotional genres. To this end, we analyzed the moves - especially move 4 (Presenting incentives for participation) which is closely related to the promotional function of CFPs and attracting and persuading participants - of CFPs.

Table 4. Frequency Counts and Percentages of Move 4 in CFPS of Established and Emerging Conferences of Hard and Soft Sciences

		Move 4	
		m4	
		freq	%
Hard and Soft sciences	Engineering. Established (Hard)	12	60
	Medicine. Established (Hard)	16	80
	Applied Linguistics. Established (Soft)	6	30
	Social Science. Established (Soft)	17	85
	Engineering. Emerging (Hard)	14	70
	Medicine. Emerging(Hard)	15	75
	Applied Linguistics. Emerging (Soft)	7	35
	Social Science. Emerging (Soft)	9	45
	Total	96	60

As can be seen in Table 4, move 4 is present in 96 CFPs of established and emerging conferences which contain 60% of the total corpus. This indicates that more than half of the CFPs of established and emerging conferences of hard and soft sciences made use of this move. Therefore, CFPs of established and emerging conferences can be considered members of academic promotional genre. In the CFPs under study, attention has been paid to various ways such as offering special rates for those who register earlier or arranging leisure activities in order to attract more participants to these events.

4.3. Discussion

The present research was conducted to explore generic variations of CFPs of established and emerging conferences between hard and soft sciences.

Move analysis of CFPs revealed no significant differences in terms of move structure between fields. The same results were obtained from the analysis of CFPs of established and emerging

conferences of soft sciences. These findings may provide supporting evidence to suggest that "a [specific] genre will certainly display a number of shared features across disciplinary boundaries "(Bhatia, 2004, p.32).

Moreover, the results of the study did not show any significant difference between hard and soft sciences in terms of move structure of CFPs of established and emerging conferences. Although, this observed convergence of move structure patterns across hard and soft sciences was seemingly in contrast with some published studies (Becher, 1994; Storer, 1967), a possible explanation for this might be found in Bhatia's (2004) view that promotional genres "display strong similarities across disciplinary and professional boundaries" (p.59) rather than be "confined to specific disciplinary cultures" (p.29).

4.3.1. Obligatory and Optional Moves in CFPs of Established and Emerging Conferences of Hard and Soft Sciences

Drawing Attention

Move 1, drawing attention, was considered an obligatory move since it was present in 96.9% of CFPs of Established and Emerging conferences of hard and soft knowledge disciplines. This finding supports previous research done by Yang (2015) in which Drawing attention was seen as an essential move in catching reader's attention at first sight.

Identifying Discourse Community Coverage

Move 2, identifying discourse community coverage, occurred in 51.3% of the total corpus; therefore, it was recognized as an optional move since the cut-off frequency point for obligatory moves was considered over 60% .This finding is in line with Yang's (2015) work in which identifying discourse community coverage was considered an optional move; however, in the analysis of the steps of this move , the findings are in contrast with Yang who concluded that "step 2.1 leads to the appearance of either of the next two steps" (p.44). In this study, steps 2.2 and 2.3 were identified in some instances without having step 2.1.

Soliciting Contributions

Some studies have echoed the point that genres are flexible in their move order (e.g. Swales 1990; Bhatia, 2004; Gea Valor & Inigo Ros, 2009). In this study, the findings related to moves 1,2,4,5,

and 6 confirmed this view. However, move 3, soliciting contributions, proved to be an exception since it appeared in all CFPs of established and emerging conferences of hard and soft sciences, therefore, it was considered an obligatory move. This finding is in line with Yang's (2015) research in which move 3 was identified as an obligatory move.

Presenting Incentives for Participation

Move4, presenting incentives for participation, which is related to the promotional function of CFPs, was present in 60% of the total corpus. It was considered an obligatory move since the cut-off frequency point for obligatory moves was over 60%. This finding is not in line with Yang's (2015) research in which move 4 was considered an optional move.

Clarifying Miscellanea

Move5, clarifying miscellanea, was used in 93.1% of CFPs of Established and Emerging conferences of hard and soft sciences; therefore, it was considered an obligatory move since the cut-off frequency point for obligatory moves was over 60% . This move provides readers with nonacademic information. This finding is in line with Yang's (2015) study in which move 5 was considered an obligatory move.

Signing Off

Move6, signing off, is the last move and contains no steps. This move was included in 8.1% of total corpus; therefore, this move was also considered to be optional. The results of the present study are in line with Yang's (2015) observation in which this move was regarded as optional. According to Yang, the conference organizers use this move to "express their expectations of receiving contributions and meeting potential participants at the conference" (p.46).

5. Conclusion

This study was conducted to investigate possible variations in moves of CFPs of established and emerging conferences across hard and soft sciences and to examine whether these CFPs can also be considered a member of academic promotional genre. To do so, the move patterning of a corpus of 160 CFPs were examined using Yang's (2015) framework to probe the similarities and differences of move structures across four disciplines of engineering, medicine, applied linguistics, and social science.

Findings revealed that there was no significant difference between the frequencies of moves in CFPs of established and emerging conferences of hard and soft sciences. Moreover, the results confirmed that CFPs of these disciplines include an obligatory move (i.e. move 4) which indicates the promotional function of this genre. This is in agreement with Yang (2015) who concluded that CFPs of the field of applied linguistic can be considered an academic promotional genre which, in addition to its academic purpose, may also promote the events and motivate researchers to take part in the conferences. Our findings regarding the obligatory and optional moves of CFPs also revealed that moves 1(Drawing attention), 3 (Soliciting contributions), 4 (Presenting incentives for participation) and 5 (Clarifying miscellanea) were obligatory while moves 2 (Identifying the discourse community coverage) and 6 (Signing off) were considered optional moves. Although these findings were in line with Yang (2015) (moves 1, 2, 3, 5, and 6), move 4 was an obligatory move in this study which contradicted Yang's view as he considered move 4 optional.

The findings of the present study may be found useful for various parties. Conference organizers may use the findings to assess and improve their prospective presenters' involvement and maintain the research standards. ESP practitioners can take advantage of CFPs for creating genre-based writing courses to teach students how to write and produce appropriate academic and promotional texts. CFPs can assist novice researchers to adapt their writing to the expectations of the research community more closely. Additionally, conference sponsors are another group who employ CFPs for advertising their services and products. Presenters may use the findings in order to enhance their knowledge and get their work published. Moreover, field experts can take advantage of the findings on CFPs to share their proficiency and verify their high status. Furthermore, as genre analysis research implies an obligation to raise teachers' awareness on the one hand and focus students' attention on specific genres for creating well-structured academic writings in writing classes on the other hand, the findings can promise implications. Accordingly, the present study may be found useful for teachers of professional genres to help students understand the disciplinary nature as well as the general conventions governing specific genres. According to Hyland (2005), this understanding, may result in paying further attention to differences and similarities within and between various disciplines that can provide materials for teacher training and second language curriculum. Becoming familiar with genres may also help students in writing classes to produce appropriate academic writings based on the framework related to that specific genre.

The current research confined itself to investigation of inter-disciplinary variations in move structure of CFPs of established and emerging conferences across hard and soft knowledge disciplines. However, there are some gaps in the current literature and future research may address the following areas.

First, the size of the corpus of CFPs analyzed in this study was not large enough; therefore, prospective researchers may probe the reliability of the results of this study by including larger samples of CFPs. Second, in this investigation, CFPs were chosen from those published between 2015 and 2016; thus, further studies can expand this time span to replicate this study in order to investigate the long-term changes which may be found in CFPs of conferences. Third, this study focused only on four disciplines of Engineering, Medicine, Applied Linguistics, and Social sciences; therefore, CFPs of other academic fields can be examined in order to increase the generalizability of the results. Fourth, in this study, emerging and established conferences as two potential sources of variation were defined and classified by the researchers; thus, in further studies, this classification can be modified and the results can be compared with this study. Fifth, in this research, we conducted a cross-disciplinary study; however, it seems appropriate to conduct a more limited but in depth and comprehensive intra-disciplinary study by investigating the generic patterns of CFPs within a particular discipline. Sixth, since CFPs are considered a member of promotional genre, further cross-disciplinary studies can focus on textual and non-textual elements such as drawings, photographs, and graphics in order to investigate how these features can help to achieve the promotional purpose of CFPs.

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