

Comparative assessment of senior year student's confidence in discipline-specific English bridging course

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Abstract. Senior year students of BSc (Hons) in Environmental and Occupational Safety and Health (EOSH) are trained to be future environmental and safety practitioners. However, they usually show relatively weak English ability when proceeding with their study in articulation degree programmes. Their ability to communicate fluently in English is pivotal to the advancement of their career, particularly for numerous international opportunities. All the EOSH students are Chinese and are expected to communicate in English at work, which indicates the importance of English proficiency. Therefore, a trial course perfectly tailored to meet the professional needs of senior year students with job-related examples was developed to improve their confidence level in communication, particularly the syntax, semantics and lexis of English language. The intended objectives were assessed by reviewing students' performance and feedback. A pre-test and a post-test were conducted to ascertain the English language proficiencies of the students before and after the English bridging course respectively. Further, a pre-designed questionnaire survey was distributed to the senior year students before and after the English bridging course to collect information about their confidence level with four identified areas, including overall language proficiency, specific writing skills, specific listening skills and specific speaking skills. The results showed that the confidence level of senior year students was low before the English bridging course, while the confidence level was moderate after the English bridging course. There was also significant improvement in their confidence level after the English course for all the identified areas. The results suggest that an English bridging course should be conducted in English by native speakers and supplemented with Cantonese from non-native speakers to enhance the understanding and confidence level of the senior year students.

Keywords: English language, senior students, environmental safety, occupational safety.

INTRODUCTION

Hong Kong is regarded as an international city and a leading financial hub in Asia. Similar to most developed cities, social, economic and technological developments have inspired advancement in architectural designs, building services and construction technology (Chow,

2009). This has consequently raised expectations for environmental health, human comfort and safety (Zhang *et al.*, 2015; Yiu *et al.*, 2018). However, Hong Kong faces a huge challenge in minimizing construction-related accidents and injuries in a city with numerous high-rise

developments and complex structures. In fact, the construction sector has the second largest share of occupational injuries affecting workers in the industry (Census and Statistics Department 2017). This stresses the importance of occupational safety for safeguarding the health of construction professionals in Hong Kong.

In response to the increasing demand for local legislation on work environments of organizations and the demand for graduates with skills in focused professional areas, a BSc (Hons) programme in Environmental and Occupational Safety & Health (EOSH) was introduced by The Hong Kong Polytechnic University in 2002. It was a government-funded articulation programme designed for senior year students. The senior year students refer to those starting their studies in Year 3 after completing a higher diploma or an associate degree. This EOSH programme serves to train competent EOSH graduates with the aim of mitigating the impact of local occupation, safety and health problems as well as environmental litigation on the working environment of organizations. After the completion of the programme, graduates are eligible to enrol as Registered Safety Officers and Environmental Officers; obtain memberships with international institutions, such as the Institution of Occupational Safety and Health of the United Kingdom; and enjoy a variety of career opportunities in construction organizations in public and private sectors, non-governmental organizations and consultancy firms. Therefore, fresh EOSH graduates are expected to demonstrate good communication skills to satisfy their job expectations.

Although all EOSH students are required to satisfy the university-wide Language and Communication Requirement (LCR) by completing two compulsory general English courses, as language proficiency was not addressed in these two courses. To fill the gaps identified in the LCR, a yearlong discipline-specific English Bridging course for senior year students of the EOSH programme was initiated. The intended learning outcomes of this English bridging course were to overcome the common weakness in English communication skills and enhance EOSH students' English language proficiencies. Specifically, the objectives of this bridging course were to enhance students' ability to communicate (i.e., in writing, listening and speaking) EOSH-specific English by producing structurally correct sentences; improve students' writing skills in conveying ideas; provide accurate descriptions of EOSH-related matters, such as processes, objects, and observations of worksites; and help students learn more effectively by improving their listening skills, which could enhance their learning experiences during lectures (Cramer 2004; Harmer 2008). The outcome of the English bridging course was then assessed through the comparison of a post-test assessment and pre-test assessment to ensure that the

intended objectives are achieved.

COMMUNICATION AMONG SENIOR YEAR STUDENTS

Overall language proficiency

English Language is a generally accepted means of communication adopted in many fields of study around the world (Crystal 1998; Flowerdew 1999). Given the wide spectrum of opportunities available for EOSH graduates internationally, strong communication skills in English are essential. However, communicating directly in English language for non-native speakers has been a great challenge for oral presentation (speaking), writing and listening to conversations (Drubin and Kellogg 2012). In fact, the majority of EOSH students come from the associated-degree or higher diploma programmes, and many of them demonstrate relatively weak English language proficiency, as revealed by the students' studies and academic performances. As a result, a heavy premium is placed on the students' knowledge of the syntax, semantics and lexis of English language given the noticed language proficiency gaps.

Writing skills

Writing is regarded as the most challenging skill because it requires principles of organization and lot of lexical and syntactic knowledge (Tangpermpoon, 2008). In engineering disciplines, clarity in writing is the overriding concern. The variety of lexical and grammatical mistakes involved in the process of writing could be challenging for both senior year students and their teachers given variances in learners' proficiency level, lack of varied and academic lexicon, undesirable attitude towards feedback, inadequate time for practice before an assessed composition, and insufficient pre-writing activities (Brenes, 2017). The quality of students' written assignments, laboratory reports and final year reports will suffer in the short term, while these deficiencies will adversely affect the students' future career progression especially on the international level in the long term (Huy, 2015). In fact, the expectation on students for expressing ideas and demonstrating understanding of contents is becoming increasingly dependent on writing (Silverman *et al.*, 2015). The current senior year students would be engaged as safety officers and environmental officers in the future and would be responsible for documentation work (Knoch *et al.*, 2015). However, mother tongue interference has been a major obstacle for exhibiting productive skills of writing in a second language (Ab-Manan *et al.*, 2017). To improve writing skills of senior year students, different researchers have suggested

some technology enhanced language learning (TELL) methods that use unusual and exciting activities for motivating learners to study English language both inside as well as outside the classroom, like Weblog (Kongsuebchart and Suppasetseree, 2016) and electronic portfolio (Meyer *et al.*, 2010).

Listening skills

Listening is one of the core elements of interaction (Ghoneim, 2013). However, non-native English speakers often lack the adequate language background required to perform tasks, such as listening required in English (Poonpon, 2011). In fact, limited opportunities for listening gives minimal or no English context to stimulate learning and speaking, excessive dependence on traditional teaching techniques, and instructor's lack of confidence affects listening ability of students in the Asia-Pacific region (Hwang *et al.* 2014). These listening deficiencies would cause students to miss crucial information given by lecturers, and their academic performances suffer as a result. To ensure improvements, there is need for practice in comprehending messages amid the simplifications of informal speech for non-native English students (Brown, 2017). Moreover, strategies for listening comprehension have been identified as cognitive, metacognitive and socio-affective (Gilakjani and Sabouri, 2016). Cognitive strategies help students' understanding and memorising of information in a short duration or even in the long run; metacognitive strategies involve management techniques, such as organizing, focusing and evaluating learning, and seeking opportunities to put the new knowledge into practice. In contrast, socio-affective strategies are non-academic techniques that help stimulate students' learning through a level of empathy between the instructor and student (Freed, 1990; Habte-Gabr, 2006; Gilakjani and Sabouri, 2016).

Speaking skills

Speaking is an important skill in developing and enhancing effectiveness in communication (Leong and Ahmadi, 2017). For many non-native speakers, poor English rhetoric and communicative skills affect their ability to engage in spontaneous oral or written English discourse even when they possess a sufficient grammar and vocabulary background (Yazawa, 2017). It becomes much more difficult to speak in English because of limited opportunities and atmosphere to communicate in the language which may be caused by few numbers of native speakers (Shadiev *et al.*, 2016; Kitchenko and Untila, 2017). However, creating an environment for communicating and practicing speaking skills in English

language (Griva *et al.*, 2010) and encouraging student interaction, corrective feedback and collaborative learning through mobile technology and digital game-based applications have been suggested for improving speaking skills for non-native speakers (Hwang and Chen, 2013; Hwang *et al.*, 2016; Roothoof and Breeze, 2016).

RESEARCH METHODOLOGY

Design of bridging course and evaluation

After careful review of students' performance, it was noted that there were three principal areas where students demonstrated a proficiency gap in English Language: syntax, the ability to structure a sentence; semantics and lexis, the ability to express an idea in a clear and understandable manner; and listening skills, the ability to understand the spoken language. While students might have grasped basic concepts of English Language in their required general English Courses (ELC 1011 and ELC 1012), more advanced concepts and industry-specific language was clearly lacking. This issue could affect students and graduates in all aspects, leading to reports containing errors and trouble understanding lectures and spoken instructions.

Based on Bloom's taxonomy for teaching and learning, the current English education EOSH students receive, and the needs of the students, the English Bridging Course was developed address these issues. The course was taught over two semesters; the first semester focused on grammar and syntax, beginning with general English concepts and later moving on to more industry and EOSH specific content. The second semester went further in depth with EOSH language and introduced types of writing such as minute taking and safety reports. Daily reading, writing, and later listening activities were administered to ensure students were receiving regular practice with the content they were learning and continuously reviewing the material of both semesters of the course.

Before the English course began, teaching materials, such as the curriculum and testing materials, were prepared; these included a daily breakdown of the topics to be taught, assignments given each day, and specific testing questions. The bridging course commenced in September 2017 and started with a pre-test at the beginning of the first semester to assess students' English proficiency in four areas – overall English proficiency, writing skills, listening skills and speaking skills. The whole course was conducted in two semesters. The course initially focused on teaching students proper English syntax with emphasis placed on comparing the syntaxes of English and Chinese (i.e. the native language of many students). Characteristics and

Table 1. Independent samples t-test for overall language proficiency.

Overall language proficiency	Pre-test (x)		Post-test (y)		MD (x-y)	t-value	Sig.
	Mean	SD	Mean	SD			
Reading English	2.30	0.733	3.26	0.806	-0.963	-3.909	0.000***
Listening to English	1.90	0.718	3.11	0.809	-1.205	-4.925	0.000***
Speaking English	2.00	0.858	2.84	0.834	-0.842	-3.104	0.004**
Writing English	2.15	0.671	3.21	0.855	-1.061	-4.322	0.000***
Total mean for the items	2.09	0.534	3.11	0.742	-1.018	-4.937	0.000***

Note: SD = Standard deviation; MD = mean difference; Sig. = significance level; ***t-test is significant at the 0.001 level (2-tailed); **t-test is significant at the 0.01 level (2-tailed).

unique lexicons of spoken English were then introduced to students to improve their listening ability. The course then shifted focus to EOSH discipline-specific topics such as describing processes and objects, safety procedures and worksites. Additionally, new topics such as minute taking and report writing were introduced. Writing and listening activities were also conducted during each lesson. At the end of the course, a post-test similar to the pre-test was administered for the evaluation of students' language proficiency. The test results could an objective baseline from which the effectiveness of the course could be determined.

In addition to pre-designed tests, a set of questionnaire survey was designed and conducted to indicate students' level of confidence in different language skills before and after the English Bridging Course. The two questionnaires were mirrored in format of the test papers which include the identified skill areas for both pre-test and post-test assessment. An additional section was added to the post-test self-assessment questionnaire to assess the student's perception of the English course. The following is a description of the questionnaire sections (Table 1):

Overall language proficiency

This section evaluated self-reported language proficiency by inviting the students to express to what extent they are confident in four language skills using a 5-point Likert-type scale ranging from 1 (not confident at all) to 5 (very confident). The language skills include their reading of English, listening to English, speaking in English and writing in English (Table 1). The overall language proficiency had a Cronbach alpha reliability coefficient of 0.898, which is higher than the minimum requirement of 0.7 (George and Mallery, 2000; Tabachnick and Fidell, 2007).

Specific writing skills

This section includes 5 multiple-choice questions pertaining to the specific writing skills of the students. The

students' responses were measured using a 5-point Likert-type scale ranging from 1 (not confident at all) to 5 (very confident) for the questions relating to the identified language skills. The content of the questions dealt with the following language skills: describing processes or events; description of the size, shape and appearance of objects; description of working environments and surroundings; writing of laboratory reports; and summarizing information from written sources (Table 2). The factors for measuring specific writing skills had a Cronbach alpha reliability coefficient of 0.956.

Specific listening skills

To clearly understand what is being said, specific listening skills are required. This section included 4 specific listening skills in which the students were asked to state their level of confidence using a five-point Likert-type scale ranging from 1 (not confident at all) to 5 (very confident). Items measured in this section includes understanding clearly delivered lectures and presentations, following discussions in tutorial and/or study groups, taking notes in lecturers and seminars, and taking minutes of meetings (Table 3). The Cronbach alpha reliability coefficient of the listening skill is 0.930.

Specific speaking skills

Three items were identified to measure the specific speaking skills of the senior year students. The students' responses were measured using a 5-point Likert-type scale ranging from 1 (not confident at all) to 5 (very confident) for the questions related to the identified speaking skills. The three items for measurement include participation in discussions during tutorial and/or study groups, giving presentations in class, and participation in workplace conversation (Table 4). The speaking skills section had a Cronbach alpha reliability coefficient of 0.932.

Table 2. Independent samples t-test for specific writing skills.

Specific writing skills	Pre-test (x)		Post-test (y)		MD (x-y)	t-value	Sig.
	Mean	SD	Mean	SD			
Describing processes or events	2.15	0.813	3.21	0.787	-1.061	-4.136	0.000***
Describing objects (size, shape, material, appearance, etc.)	1.85	0.813	3.11	0.937	-1.255	-4.477	0.000***
Describing environments (rooms, worksites, surroundings, etc.)	1.95	0.686	3.11	0.937	-1.155	-4.410	0.000***
Writing laboratory reports	2.05	0.759	3.00	0.882	-0.950	-3.611	0.001**
Summarizing information from written sources	2.00	0.918	3.05	0.970	-1.053	-3.482	0.001**
Total mean for the items	2.00	0.639	3.09	0.865	-1.095	-4.511	0.000***

Note: SD = Standard deviation; MD = mean difference; Sig. = significance level; ***t-test is significant at the 0.001 level (2-tailed); **t-test is significant at the 0.01 level (2-tailed).

Table 3. Independent samples t-test for specific listening skills.

Specific listening skills	Pre-test (x)		Post-test (y)		MD (x-y)	t-value	Sig.
	M	SD	M	SD			
Understanding lectures and presentations if they are clearly delivered	2.75	0.851	3.21	0.787	-0.461	-1.752	0.088
Following discussions in tutorial or study groups	2.40	0.883	3.32	0.749	-0.916	-3.484	0.001**
Taking notes in lecturers and seminars	2.30	0.923	3.26	0.733	-0.963	-3.595	0.001**
Taking meeting minutes (recording what is said in a meeting)	1.75	0.639	2.89	0.937	-1.145	-4.480	0.000***
Total mean for the items	2.30	0.719	3.17	0.741	-0.871	-3.726	0.001**

Note: SD = Standard deviation; MD = mean difference; Sig. = significance level; ***t-test is significant at the 0.001 level (2-tailed); **t-test is significant at the 0.01 level (2-tailed).

Table 4. Independent samples t-test for specific speaking skills.

Specific speaking skills	Pre-test (x)		Post-test (y)		MD (x-y)	t-value	Sig.
	M	SD	M	SD			
Participating in discussions in tutorial or study groups	1.95	0.887	3.47	.612	-1.524	-6.212	0.000***
Giving presentations in class	2.10	0.718	3.21	.713	-1.111	-4.843	0.000***
Participating in a workplace conversation	1.65	0.813	3.11	.737	-1.455	-5.846	0.000***
Total mean for the items	1.90	0.726	3.26	0.604	-1.363	-6.354	0.000***

Note: SD = Standard deviation; MD = mean difference; Sig. = significance level; ***t-test is significant at the 0.001 level (2-tailed); **t-test is significant at the 0.01 level (2-tailed).

The post-test questionnaire included one additional section:

General comments about the English course

Four items were identified to receive comments from the senior year students about the English course

undertaken, which were measured using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questions relating to the general comments include (i) did you find this course useful, and would you recommend its continuation; (ii) did you find the teaching materials highly relevant to your technical content; (iii) did you experienced better understanding than when teaching in Cantonese; and (iv) were you

Table 5. Level of agreement with comments about the English course.

Comments on English course	Mean	SD
This course was useful, and I would recommend to continue.	3.16	0.898
The teaching materials are highly relevant to your technical content, i.e., OSH.	2.95	0.911
Better understanding was obtained when teaching in Cantonese.	3.26	0.872
You were motivated to learn English.	3.28	0.895

Note: SD = Standard deviation

motivated to learn English (Table 5). The Cronbach alpha value reliability coefficient for this section is 0.950.

The questionnaire survey was conducted through an independent pre-test and post-test assessment in a discipline-specific English bridging course organized for senior year students of the EOSH programme in the Department of Civil and Environmental Engineering, Hong Kong Polytechnic University, Hung Hom. The study was conducted as a pilot test to address a few group of senior students with training needs in English proficiency. Due to the constraints of the class size and the experimental nature of the whole study, the sample size for this study was limited. Of the 30 students who attended the bridging course, only 20 of the students volunteered to participate in the pre-test assessment, while 19 students volunteered to participate in the post-test assessment. The participants were all year 3 EOSH undergraduate students (i.e., all senior year students starting their study at year 3) who completed a higher diploma or associate degree. The pre-test assessment questionnaire was conducted with the students at the beginning of the course during the first month of the 2017-2018 academic year, and the post-test questionnaire assessment was conducted with the same class during the last month of the first semester of the 2017 to 2018 academic year.

Data analysis

After the data collection, a series of statistical data analyses were carried out with the use of the Statistical Package for Social Sciences (SPSS version 22.0) for the reliability test, mean item score and independent samples t-test. Firstly, reliability tests were conducted by calculating the Cronbach alpha coefficient to ensure the internal consistency of the items used for measuring the different language skills in this study. Secondly, the mean item score was used for calculating the confidence level in the identified language skills area and the level of agreement with the general comments about the English course. Finally, independent samples t-test was used to examine the difference in confidence level between the

language skills before the English course (pre-test self-assessment) and after the English course (post-test self-assessment) for senior year students of the EOSH programme (Pallant, 2011).

RESULTS AND DISCUSSION

Overall course evaluation

The study identified language skill areas for improvement and development, including overall language proficiency, specific writing skills, specific listening skills and specific speaking skills. The test papers and questionnaire consisted of four sections according to the identified skill areas for both pre-test and post-test assessment. Test results demonstrated not much improvement in the writing and listening categories. Based on results from the pre and post questionnaires, students rated their comfort and skillset an average 44.25% higher for English overall, 47.60% higher for writing, 37.87% higher for listening, and 59.27% higher for speaking. Regarding the questionnaire survey, the results of the mean score indicate that the senior year students were less confident for the pre-test assessment (that is, before the English bridging course), while their confidence level was average for the post-test assessment (after the English bridging course). On the other hand, the one-way between-groups ANOVA shows that all the items for overall language proficiency, writing and speaking skills were significantly different between the pre-test and post-test assessment. In addition, four out of five items were significantly different between the pre-test and post-test assessments for listening skills. Overall, the results from both in-class tests and self-evaluations therefore supported the improvement of skillset and confidence in all areas of the English language.

Self-assessment of overall language proficiency by senior year students

The mean level of confidence for each of the four items

and the total mean for overall language proficiency of the senior year students before and after the English course are shown in Table 1. The students reported a very low confidence level in their overall language proficiency (mean = 2.09 and 3.11 on a scale of 5). The students had the highest confidence level with reading English, while they had the lowest confidence level with listening to English and speaking English in the pre-test and post-test assessment, respectively. Although the students reported a highly significant change in their confidence level after the English course, their confidence level in all the items for the overall language proficiency was not high. The results of the significant differences in confidence level include the following: reading English ($t = -3.909$, $p = 0.000$), listening to English (t -value = -4.925 ; $p = 0.000$), speaking English (t -value = -3.104 , $p = 0.004$) and writing English (t -value = -4.322 , $p = 0.000$) under the overall language proficiency category.

Self-assessment of writing skills by senior year students

According to the overall mean score for the writing skills, both the pre-test self-assessment and the post-test self-assessment showed that the confidence level of the senior year students were not high (Table 2). The comparison between the two stages indicates that their confidence level was significantly higher after the English course. The results of the significant differences in confidence level include the following: describing processes or events ($t = -4.136$, $p = 0.000$), describing objects ($t = -4.477$, $p = 0.000$), describing environments ($t = -4.410$, $p = 0.000$), writing laboratory reports ($t = -3.611$, $p = 0.000$) and summarizing information from written sources ($t = -3.482$, $p = 0.001$) under the specific writing skills category.

The confidence level for the writing skills of the senior year students were very low before the English bridging course, ranging between 1.95 and 2.15 out of a possible 5.00. Senior year students were already accustomed to writing in Cantonese, which is the first official language in Hong Kong. Therefore, when describing events and environments, the students try to translate the Cantonese writings into English language, and this translation does not completely portray their intention and creates some forms of doubt and uncertainty (Hyland and Milton, 1997; Scheffler, 2013). In fact, before the pre-test assessment, most students were unable to express ideas (e.g., the process of conducting an engineering related task) or give descriptive accounts of their observations (e.g., describing what they have seen or done on worksites) accurately because they lack basic language structures and vocabulary (David *et al.*, 2015). Moreover, students' works also revealed a widespread problem of structurally

incorrect English sentences on EOSH related topics due to the mother tongue influence (Ab-Manan *et al.*, 2017). Conversely, there was a significant increase in their confidence level after the bridging course. This reveals a positive effect of the English bridging course on senior year students, thus fulfilling one of the objectives of the course. Perhaps, exposing senior year students to some of the basic syntax involved in creating structurally correct sentences could have positively influenced their writing confidence (Brenes, 2017). More importantly, senior year students were requested to write and submit reports, which provided the opportunity to practice what they have been taught. This was helpful to senior year students as it created an avenue for them to follow the basic syntax and lexicons for writing good grammatical sentences (Saddler and Asaro-Saddler, 2009).

Self-assessment of listening skills by senior year students

Although there was a highly significant difference between the pre-test and post-test assessment, the total mean for the listening skills also showed a low confidence level before the English course and a moderate confidence level after the English course (Table 3). The results show a significant difference in the confidence level of the specific listening skills as follows: following discussions in tutorials/study groups (t -value = -3.484 , $p = 0.001$), taking notes in lectures and seminars (t -value = -3.595 , $p = 0.001$) and taking meeting minutes (t -value = -4.480 , $p = 0.000$).

The ratings of senior year students on their listening skills also revealed that they were less confident with the mean score ranging from 1.75 and 2.74 out of a possible Likert scale of 5.0. Many of the senior year students have studied in local schools where the medium of teaching and communication was Cantonese given the expensive nature of international schools. This may influence their level of understanding and assimilation when lectures and presentations are conducted in English language. Many students have also experienced difficulties in taking notes during lectures and seminars because they cannot follow the lecturer's pace as a result of their poor listening proficiency (Vandergrift, 2006). Moreover, the listening problem and inability to speak fluently could also be an important factor contributing to the confidence level of the senior year students. However, there was a significant increase in the confidence level of the senior year students for the listening skills, including following discussion and taking notes in lectures, seminars and minutes of meetings. Their increase in confidence could be positively influenced using their mother tongue (i.e., Cantonese) as a medium of teaching during the English bridging course (Madrifan, 2014). In fact, the students

found better understanding when they listened to their lectures in Cantonese (see rating of comments in Table 5).

Self-assessment of speaking skills by senior year students

According to the overall mean score for the speaking skills, both the pre-test self-assessment and the post-test self-assessment showed that the confidence level of the senior year students were not high (Table 4). The confidence level for speaking was very low before the English course, but there was significant improvement after the English course. The results show a significant difference in the confidence level of the specific speaking skills as follows: participating in discussions in tutorial/study groups (t -value = -6.212, p = 0.000), giving presentations in class (t -value = -4.843, p = 0.000) and participation in a workplace conversation (t -value = 5.846, p = 0.000).

The confidence level for the speaking skills of the senior year students were very low before the English bridging course ranging between 1.65 and 2.10 out of a possible 5.00. Although English is regarded as one of the official languages in Hong Kong, Cantonese is regarded as the mother tongue. Many of the senior year students have completed their basic education in their mother tongue up to the high school level. Perhaps, these students found it hard to participate in unplanned speech even when they have the knowledge of the necessary grammatical competence (Yazawa, 2017). The main culprit is a lack of engineering content-specific lexical resources or simply not knowing the correct way to express certain ideas related to engineering. All these identified problems could have induced a low confidence in the students before the bridging course. In fact, in a similar study for Asians in Australia, a Hong Kong student made this assertion: "Before I speak English, I need to think of the word in correct sentences with correct grammar in English. I have to think in my own language first and then transfer it to English with correct grammar usage" (Sawir, 2005). In fact, it may take some time before the students subconsciously translate from their mother tongue what they intend to say, which will affect the coherence and fluency of speech (de-Saint Leger and Storch, 2009). However, after the English course, there was a significant enhancement in the confidence level of the senior year students. Perhaps, the opportunity to present assignments with classmates and their tutors provided the confidence needed for public speaking in senior year students (Derakhshan *et al.*, 2015).

General comments about the English course

To get more feedback from the students, some comments

about the English course was included in the post-test self-assessment (Table 5). The results show that the participating students exhibited the highest level of agreement with being motivated to learn English (Mean = 3.28), while the lowest level of agreement was noted for the relevance of the teaching materials to the technical content of Occupational Safety and Health (OSH; Mean = 2.95).

RECOMMENDATIONS AND FURTHER RESEARCH

This study has investigated the significant differences in the confidence level of the senior year students before and after the English bridging course. Practical recommendations are thus suggested for the policy makers and educationists to ensure that the curriculum and objectives of the English course meet the needs of senior year students. Although the level of confidence of senior year students improved significantly, there is room for further improvement in achieving the intended objectives of the English bridging course. Therefore, it is suggested that the bridging course is conducted in English and supplemented with Cantonese to further enhance both the understanding and confidence level of the students.

Furthermore, both native and non-native English speakers could be jointly involved in teaching the bridging course so that the students can significantly learn the syntax, semantics and lexis from native speakers in English language (Lasagabaster and Sierra, 2002). This will boost the confidence level of the senior year students in communicating in a foreign language. Given that practice makes perfect, the students can be encouraged to make friends with international students to practice the habit of speaking and listening to English, so they can significantly enhance their confidence in speaking (Freiermuth, 2001; Brown, 2017). In addition, exposure by listening to speaking activities in real world situations and through the media and seeking opportunities for outdoor speaking can also promote the speaking confidence of the senior year students (Boonkit, 2010). Mobile technology and digital game-based applications could be developed so as to improve students' learning experiences as well as confidence in listening (Papadakis, 2018; Papadakis *et al.*, 2018; Kalogiannakis and Papadakis, 2019).

The study has adopted a subjective method (i.e., use of questionnaire survey) in analysing the confidence level of the senior year students. Subsequent studies can adopt an objective approach for the assessment of the student's confidence level with the use of Information Communication Technologies (ICT). This can be well-supported and ascertained by developing various rubrics for assessing the content, organization, interaction with

students and language (Wolf and Stevens, 2007; Rakedzon and Baram-Tsabari, 2017; Kalogiannakis and Papadakis, 2019). The rubrics should consider the different linguistic backgrounds, different proficiency levels in English language and different proficiency levels in the native language (Educational Testing Service, 2009).

CONCLUSIONS

The ability of senior year students to communicate fluently, write accurately and listen effectively will affect their long-term career. Therefore, the English bridging course was an avenue to ensure the proficiency of the senior year students in writing and listening and speaking. In this study, four specific areas were identified, including overall language proficiency, writing skills, listening skills and speaking skills. The course included two methods of assessment: questionnaires, issued at the beginning and conclusion of the course, where students self-assess their progress and experience in the course, as well as pre-course, and post-course tests to evaluate students' learning progress. Results demonstrated not much improvement in the writing and listening skills by comparing the pre-course and post-course tests. On the other hand, the questionnaires showed that variances in the confidence levels among the pre-test and post-test questionnaires for the senior year students were analysed quantitatively using a one-way between-groups ANOVA. The result of the one-way between-groups ANOVA indicated significant difference in the confidence level of the senior year students before the introduction of the English course (i.e., pre-test assessment) and after the English course (post-test assessment). The result also shows that students' language proficiency was slightly improved in all the identified areas, but the senior year students' confidence levels remained low. According to the study results, various recommendations have been presented to increase the confidence level of the senior year students with their overall language proficiency, writing, listening and speaking skills. Specifically, this study also suggests that an objective approach can be employed in future research studies for the assessment of the student's confidence level.

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