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## Foreword

Welcome to the May Issue 4 Asian ESP Journal papers. In this issue we present 7 papers. Authors come from Thailand, Bahrain, Saudi Arabia, Jordan and the United Arab Emirates. In the first paper entitled EAP Reading Comprehension and Strategies of Saudi Arabian Learners: A Comparative Study in EFL and ESL Contexts by Dr. Abdulkhaleq Al-Qahtani of King Khalid University, his paper investigates the role of the learning environment on the reading proficiency/ability of Saudi Arabian learners in English as a foreign language as opposed to learners reading ability in English as a second language. The author notes, as Grabe (2002) suggested, teachers should concentrate on instructing learners to come out of their shells as strategic readers rather than teaching reading strategies.

The second paper is by Jeffrey Dawala Wilang and Thanatcha Ngamchaturat from Suranaree University of Technology, Thailand. Their study reports on the foreign language anxiety experienced by first-year Engineering students in the English language then investigates Communication Strategies used when performing a discussion task, of which the topic and discussants are chosen randomly. Based on a survey questionnaire, findings showed that the students' highest anxiety-provoking situation was 'when they speak without preparation' and the lowest anxiety-provoking situation was when 'they are getting left behind.' The third paper is by Eman Alblooshi, at the University of Bahrain, entitled Teaching 21st Century Skills in a Bichronous Learning Environment. The paper investigates students' reflections of how the shift to bi-chronous (during the pandemic) learning has affected their acquisition of 21st century skills. The results of this study that a bichronous learning environment can represent an ideal learning setting which can aid the acquisition of the essential 21st century skills.

The fourth paper is by Dr. Bassam Alhamad, University of Bahrain, entitled Enhancing Employability through Student Empowerment in the Light of Economical Challenges. Different universities in Bahrain had different approaches in enhancing employability which

approaches included process, procedures, policies, partnerships, however few of those universities follow a framework approach. Frameworks, that are based on international good practices, integrate both academic and life skills that to enhance the employability skills. The purpose of this paper is to show the approach implemented in University of Bahrain, and its comparison with international best practices and 21st Century Skills. The next paper is *Implementing PBL in the Professional Development of Teachers: A Case Study* by Dr. Neesha Malik. The current research is a case in implementing Project-Based Learning in the professional development course for teachers. While the study explores the teacher readiness in using PBL and provides evidence to support why PBL is an effective method of learning, it is primarily an attempt to design a three-day professional development course to implement PBL, to build dynamic teams to lead the project work, and estimate the effectiveness of the course. The current research aimed to emphasize the urgency in equipping teachers with skills to make them competent to lead the learner-driven 21st century pedagogy.

The next paper is by Tharwat M. EL-Sakran, entitled *Explanatory Factor Analysis Determines Students' Preferences for ESP Course Contents*. Unlike previous English Specific Purpose studies that focused on holistic ESP course evaluations and since this course covered numerous activities, academic, occupational and professional, it was the aim of this study to specify the learners' perceptions of the individual course components and find out which ones they liked more than the other(s). The results obtained from the current study confirmed that the students appreciated the universities revised course syllabus and viewed it of great relevance to their academic, personality and labour market needs.

The final paper is authored by Dr. Muhammad Khan Abdul Malik, Jazan University, Saudi Arabia and entitled *ELT Assessment Patterns Dictate Teaching-Learning Approaches: A Hindrance to Map out Employability and Life Skills*. The significance of the present study is "how can the ELT approaches and assessment patterns be adapted and transformed specifically to meet the demand of the labor market, employability and life skills including soft skills in practical life-like situations." The line between EFL and ESP is very fine, and this research has important conclusions including filling "the yawning gap" between the existing level of EFL learners' standards and the most wanted employability and life skills.



## **EAP Reading Comprehension and Strategies of Saudi Arabian Learners: A Comparative Study in EFL and ESL Contexts**

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### **Abstract**

This paper investigates the role of the learning environment on the reading proficiency/ability of Saudi Arabian learners in English as a foreign language as opposed to learners reading ability in English as a second language, EFL versus ESL. It also looks into the possible relationship between reading comprehension achievement and the use of three areas of reading metacognitive strategies: global, problem solving, and support strategies. Two groups of college students were employed to explore possible similarities and differences thereof. A hundred and forty-one college students were selected to participate in the study following specific selection criteria. The participants were EFL group (n=70) and ESL group (n=71). The EFL group was in Saudi Arabia and the ESL was in the United States of America. The results show no differences between the two groups in their performance on a standardized reading test; the results were not found statistically different. However, the ESL group reported higher

use of the global reading strategies, and the difference between the two groups was found statistically significant. Further, no significant relationship was found between reading comprehension and the three types of reading strategies among the EFL group. However, there was a significant positive relationship between the problem-solving strategies and reading comprehension in the ESL group.

**Keywords:** *EAP, EFL, ESL, learning environment, reading comprehension, reading strategies*

## 1. Introduction

The context in which learning a second/foreign language occurs is of special importance in the second language acquisition literature. Traditionally, two major contexts are identified: ESL and EFL. The EFL is the context in which learners acquire language in a foreign environment that is not English, such as, Chinese students learning English in China or Japanese in Japan. The ESL context, however, is learning English in an English-speaking environment like learning English in the USA, Britain, or Australia ( Stern, 1983; Taguchi, 2008 ). It has been assumed, among other things, that learners in ESL context have much more accessibility to the target language when compared to the EFL context (Anderson, 2004; Bardovi-Harlig & Dörnyei, 1998; Brown, 2000; Shahata, 2008; Schauer, 2006; Taguchi, 2008 ).

The ESL and EFL environments are not always clearly distinguishable as mentioned above. Certain situations blur this distinction, and thus should not be taken for granted as Nyaer, (1997) and Brown, (2000) pointed out. The assertion is to use these terms with caution as there are shades and politics come into play. For example, Nayer claimed that there is another ESL context that could be added which is English in Scandinavia. Even though English in Scandinavia is not official, yet most if not all educated people in those areas use English comfortably. To Nyaer (1997) the ESL or EFL traditional definition may not apply. Similar situations like the status of English in the Philippines and India are cases in point as Brown (2000) contended. Further, the issue of identifying English as an international language EIL is another valid aspect of the argument. Having recognized that, the situation in which learners learn English in an English-speaking environment is clearly an ESL, and the other situation in which learners of another native language learn English in their home country is an EFL.

The role of the environment has been studied and found influential in many areas of English skills. Some researchers found ESL environment contributes positively to pragmatic competency compared to EFL environment (e.g. Schauer, 2006; Taguchi, 2008; Al-Ahdal &

Alharbi, 2021). Some other researchers found a significant positive relationship in the acquisition of listening skills (Al-Arishi, 1991). Others found ESL learners outperforming their EFL counterparts in their productive and receptive knowledge of collocations (Shehata, 2008). Thus, each area/aspect of English needs to be studied in its own right as learning environments could affect different aspects differently.

## 1.1 Reading and the learning environment

There is a consensus among researchers in the field of applied linguistics that reading is central to language acquisition and academic success (Al-Melhi, 1999; Alsamadani, 2009; Carrel, 1989; Ghaith & El-Sanyoura, 2019; Rivers, 1981; Al-Ahdal & Algouzi, 2021). It has been generally assumed that the learning context has an impact on the level of mastery. The major claim is that the ESL context is better than the EFL context in acquiring English as a second language (Stern, 1983). Furthermore, it has been claimed that the sooner the mastery the better the learning outcome (AL-Melhi, 1999; Al-Ahdal, 2020). Numerous studies were conducted to emphasize the role of reading and the importance of reading comprehension for learners whose academic success is dependent on reading texts and dealing with the printed word (e.g., Al-Melhi, 1999; Alsamadi, 2009; Eskey, 2005; Mushait, 2004; Ghaith & El-Sanyoura, 2019, etc.).

Thus, many factors can affect reading comprehension. One important factor that affects reading achievement is the awareness and use of reading strategies. A sizeable amount of research has surged in the last two decades to build a consensus that reading strategies play a paramount role in the proficiency level of reading comprehension (e.g., Bernhardt, 2011; Grabe, 2009). Mokhtari and Sheorey (2002) asserted that awareness and use of reading strategies are associated with reading comprehension and academic success. They provided an inventory of metacognitive reading strategies in which they divided reading strategies into three subscales: global, problem solving, and support reading strategies. They devised an instrument called the SORS (Survey of Reading Strategies). This tool has become one of the most reliable tools to measure and report reading strategies in a second language (Al-Qahtani 2021; Lin 2018). Thus, many studies along this line have been conducted in various contexts and different cultures. Ghaith and El-Sanyoura (2019) and Lin (2018) provided a long list of studies that prove the effective role of reading strategies on reading comprehension (many of those studies employed the SORS).

Despite the extensive research on reading comprehension and strategies, reading is one of the least studied areas of SLA in relation to the learning environment. One relevant study found comparing the two learning environments (ESL versus EFL) is Anderson (2004). He studied the reported use of reading strategies by learners of English in two environments: one in Utah, USA, and the other in Cost Arica. Three hundred and ninety-six participants took part in the study. He found no difference between the ESL and the EFL readers at the overall level. However, he found a significant difference between the two groups in one of three subscales of reading strategies, the problem-solving subscale.

The present study is meant to help shed much-needed light on the role of learning environments/contexts in reading comprehension and strategies. The study will report an account of the reading achievement of college students in two learning contexts: EFL and ESL. The study seeks to answer the following questions:

### **1.2 The Questions**

1. Do Saudi ESL learners perform better than Saudi EFL learners on reading comprehension tests do? In other words, does the context of learning matter?
2. Are there any differences in strategy use between the two learning contexts?
3. Do reading strategies correlate with reading comprehension in each context? Specifically, to what extent does context help operationalize the use of strategies?

## **2. Methodology**

### **2.1 Participants**

Two groups of learners of English in two contexts were employed in this study. One in EFL context where English is learned in a foreign environment. The other comprises learners who learned English in an ESL environment where English is spoken natively in their setting, one group in Saudi Arabia and the other in the USA. All these students spent from one to two years of intensive English instruction and presumably ready to move on in their various academic specialties as English is the medium of instruction in both settings.

One hundred and sixty-seven (167) students took part in this study. All participants were male university students from Saudi Arabia. Their age ranges from 20 to 31 years old. Since the study was, designed to hold as many variables as possible constant leaving the learning context as the main variable under investigation, participants who did not match some or all the selection criteria were excluded.

The selection criteria were as follows:

1. All participants must be college students
2. Their undergoing and future education must be delivered in English.
3. They have had at least one year of intensive English instruction
4. Must be males (since gender could be another variable and would fall beyond the scope of the present study).
5. The EFL students had never been instructed in an ESL setting.
6. The ESL students must have spent at least one year in an intensive English program in the USA before they had joined their academic programs.

Thus, only 141 candidates were employed to answer the questions of this paper: 71 students in the ESL context and 70 in the EFL. Some of the excluded were a few who either did not respond

to the test and/or the questionnaire fully. The rest were the ones who did not meet one or more of the selection criteria above.

## 2.2 Material

Three instruments were employed in the present study: a retired version of the reading section of the TOFEL test, a short background survey, and the Survey of Reading Strategies (SORS) that was developed by Mokhtari and Sheorey in 2002. The reading test is considered valid and reliable as it has been used as an accurate measure in many academic procedures worldwide (Rosenfeld et al, 2001).

The short background survey checked participants' demographics, such as, age, time spent learning English, the environment in which they learned English (ESL vs. EFL), and their self-reported proficiency level. This short questionnaire helped in screening participants' background and was mainly built around the selection criteria to ensure all participants are assigned to their distinctive group either ESL or EFL. The survey was presented as an initial section of the SORS (See Appendix B).

As for the SORS, it has been tested and approved for validity and reliability in several studies (e.g. Alhaqbani & Riazi, 2012; Alsheikh, 2009; Mokhtari & Sheroey, 2002; Sheorey & Baboczky, 2008; etc.). Further, the SORS reliability was tested for this study and the Cronbach's Alpha was 0.847 for the 30 items as shown in table 1. This score of 0.847 is considered acceptable and proves the reliability of the instrument for this study.

**Table 1: Reliability Statistics**

Cronbach's Alpha	N of Items
.847	30

The SORS is divided into three areas covering various reading strategies: The Global Reading Strategies (GLOB), Problem Solving Strategies (PROB), and Support Reading Strategies (SUP). The three areas consist of 30 items. The items are designed on a 5-point Likert scale where one is 'I never do this and 5 is 'I always do this. The items are scrambled and not labeled to their functioning roles. The reason for mixing the strategies was to avoid misleading respondents.

The SORS was translated into Arabic to ensure that participants would have a full and accurate understanding of the items. Previous translations were consulted as the one used by Al-Nujadi

(2003), and few changes were made to adjust for the purpose of the study. For example, items that assumed native speakers of English or any other language were adjusted to Arabic native speaking participants.

The global reading strategies (GLOB) consist of thirteen strategies. They deal with prereading activities that readers usually do before they indulge in the process. For example, a reader is likely to have a goal or a purpose for the act of reading, invoke previous knowledge about the topic at hand, review the piece of reading in terms of length and organization, check visual additions to the text like pictures or tables to increase understanding, etc. The 13 strategies are not presented in the survey as one single, identifiable group but rather scrambled among the other 17 strategies that comprise the entire SORS strategies.

The problem-solving strategies (PROB) consist of eight items. This area covers the activities that readers resort to as they undertake the task of reading. They might slow down on their pace of reading for the sake of better understanding, they could go back or repeat a sentence or a paragraph to get a slipping idea, or they might guess the meaning of unknown words based on the context.

The third area covered in the SORS is support-reading strategies (SUP). As the name suggests, the reader in this area might resort to supporting techniques like using a dictionary, underlining text, or taking notes. In this section of the survey, there are nine items.

Mokhtari and Sheorey (2002) provided a scoring sheet for the survey including descriptors of how to interpret the results. For each area, the responses should be added up and then averaged to get a score out of 5. Then the total is added up and then divided by 30, which yields an overall score out of 5. Those who score 3.5 or higher are considered high strategy users, 2.5-3.4 are medium, and 2.4 or lower are considered low strategy users. Each area of the three would yield one of these scores. Then the overall score is averaged. Thus, a person could score high, low, or medium in one or two areas and still have a different overall average or vice versa. The reading section of the TOFEL is comprised of five passages followed by multiple-choice questions. Each of the five passages presents a topic of common academic interest. All the passages are short; some of them are just one paragraph. The first one is a one-paragraph passage that talks about an American literary figure. The second deals with a historical era in recent history. Then a passage on insects followed. The fourth is on trees and their environmental role in the world. The last passage was on general information about British, Colombia, Canada. The comprehension questions that follow the passages present various difficulty levels that range from literal-level difficulty to inferential higher-level difficulty.

Thus, the passages are assumed to have covered vast areas of topics, and different levels of difficulty that should measure participants' reading ability level accurately (see Appendix A). The third tool was the background questionnaire, which was meant to collect demographic data about the participants to make sure they would fit within the selection criteria. This instrument included questions about age, time-spent learning English, previous experiences such as having studied English in an English-speaking country, in other words, context of learning (ESL/EFL). Thus, this tool helped in screening out participants who did not fit the selection criteria.

### **2.3 Procedure**

The participants were recruited from two parts of the world. The EFL participants were drawn from one of the largest universities in Saudi Arabia (around 64,000 students). A university that offers its services to the whole southwestern region of Saudi Arabia in four major campuses (more than 80,000 square kilometers). Due to practical issues, no other Saudi Arabian universities were included.

The researcher held conferences with the participants in each location to introduce the research project, its objectives, and possible benefits, and then allowed questions and answers. Then participants were asked to complete the three tasks of the study, their permission was granted by signing a disclaimer at the end of the SORS. The data was gathered over a whole semester in different locations. The researcher, himself, administered the test first and then asked the participants to respond to the SORS. Both the test and the SORS were stapled together to make sure that the test and the questionnaire were for the same person. The papers were collected and then assigned an ID number for each participant.

Then, in the following year, the researcher flew to the Midwest of the USA to collect the data for ESL participants. The area was chosen because it hosts the largest Saudi students population in the USA. The participants were Saudi students who met the selection criteria above. The researcher travelled around and met with Saudi students in five different universities in two states. In each site, the researcher would hold a conference to introduce participants to the task and the importance of the research and the exact possible benefits of their role in responding fully and to the best of their abilities. All participants showed interest in the study and were happy to complete the tasks.

The same stapled test and the SORS that was used in Saudi Arabia were given to the ESL participants. The researcher administered the tasks, himself, in sixty-minute sessions in each site copying the same procedure in Saudi Arabia. The papers were collected at the end of each session and given ID numbers to keep track of each participant.

## 2.4 Data Analysis

All tests were assigned scores out of 30 (the score for the reading section of TOFEL). Then the questionnaires were checked and assigned their results based on Mokhtari and Sheorey's (2002) scoring sheet. Then the data were fed to SPSS 26 Program for statistical analyses. The two scores of the TOFEL yielded by the two groups were compared to answer the first question of this study.

For each context, the strategy used was checked and then correlated with comprehension scores to see if there is a relationship between the two learning environments, ESL and EFL. Thus, the correlation between the test scores and the reading strategies scores were measured for each group and then compared to one another to answer the second and the third questions.

## 3. Results

To answer the first question, *do ESL learners perform better than the EFL learners on reading comprehension tests do? In other words, does the context of learning matter?* The means of the two scores of the TOFEL were compared. First, the mean result of the EFL group was  $M=11.43$  and the standard deviation was  $SD= 4.58$ . As for the ESL group, the mean was  $M= 12.85$  with a standard deviation of  $SD=5.157$ . To check the statistical significance, the independent sample t-test was conducted and yielded no statistical significance. The p-value was  $p = 0.087$  which is greater than  $p = 0.05$ . Table 2 shows the t-test results.

*Table 2: Independent Sample t-test of the Reading Test*

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
TOFL Score	Equal v assumed	1.600	.208	-1.724	139	.087	-1.416	.822
	Equal v not assumed			-1.725	137.515	.087	-1.416	.821

As for the second question, *are there any differences in strategy use between the two learning contexts?* To answer this question, all the means of the 30 reading strategies in the SORS were compared for statistical significance. Table 3 shows the descriptive statistics of the three areas of strategies as well as the overall strategies. The table provides the means of both groups with very similar standard deviations across the board for all areas. The means were compared, and only the global strategies were found to be statistically significant at  $p= 0.018$  which is less than  $p= 0.05$ , see Appendix B. Neither the mean differences in the other two areas were found statistically significant nor the overall strategies. The p-value in the PROB was  $p= 0.054$ , and

the SUP was found to be  $p=0.598$ . As for the overall  $p$ -value, it was  $p=0.083$ . Thus, the ESL group seems to show more awareness and possibly more use of GLOB strategies more than the EFL group.

Learning Context		N	Mean	St. Deviation
Global	EFL	70	2.9681	.51251
	ESL	71	3.1701	.48788
Problem solving strategies	EFL	70	3.5625	.65964
	ESL	71	3.7729	.62440
support strategies	EFL	70	3.2286	.65527
	ESL	71	3.1721	.61112
overall strategies	EFL	70	3.1814	.49303
	ESL	71	3.3258	.48948

To delve deeper into the data, further analyses were conducted at the item level to see if there were any other differences between the two learning contexts. Eight strategies were found statistically different between the two groups: five global strategies (6, 12, 17, 20, and 21), one problem solving (9), and two support strategies (22, 29). The remaining 22 strategies were not found different. Table 4 presents the descriptive statistics of these eight items; Appendix A presents the t-test results of these items. The  $p$ -value for the GLOB strategies (6, 12, 17, 20, 21) were  $p=0.009$ ;  $p=0.031$ ;  $p=0.009$ ;  $p=0.023$ ;  $p=0.003$ , respectively. Strategy 9 which is PROB had a  $p$ -value of  $p=0.011$ . As for the remaining two SUP strategies (22, 29), their  $p$ -values were  $P=0.04$  and  $p=0.000$ , respectively.

In this closer look, though most of the differences were in favor of the ESL group, two strategies were recognized by the EFL group and are assumed to be used more, namely items 20 of the GLOB and Item 29 of the SUP, see Table 4.

**Table 4: Group Statistics Learning**

	Context	N	Mean	Std. Deviation	Std. Error Mean
Q6: I think about whether the content of the text fits my reading purpose	EFL	70	2.77	1.206	.144
	ESL	71	3.32	1.251	.148
Q12: when reading, I decide what to read closely and what to ignore.	EFL	70	3.07	1.159	.138
	ESL	71	3.51	1.217	.144
Q17: I use context clues to help me understand better understand what I am reading	EFL	70	3.27	1.062	.127
	ESL	71	3.75	1.079	.128

Q20: I use typographical features like boldface and italics to identify key information	EFL	70	3.14	1.437	.172
	ESL	71	2.62	1.269	.151
Q21: I critically analyze and evaluate the information presented in the text	EFL	70	2.27	1.076	.129
	ESL	71	2.83	1.082	.128
Q9: I try to get back on track when I lose concentration	EFL	70	3.86	1.231	.147
	ESL	71	4.32	.891	.106
Q22: I go back and forth in the text to find relationship among ideas in it	EFL	70	2.80	1.258	.150
	ESL	71	3.21	1.094	.130
Q29: when reading I translate from English into Arabic	EFL	70	3.73	1.191	.142
	ESL	71	2.90	1.161	.138

Despite the differences displayed in the GLOB strategies subset, the general pattern of strategy use looks similar. The rank order of strategy use in EFL group is PROB as the highest with a mean of 3.56 followed by SUP subset with a mean of 3.22 and the least is GLOB strategies with a mean of 2.96. Thus, based on Mokhtari and Sheorey's (2002) guide sheet, the EFL group had high PROB, medium SUP, and medium GLOB. The ranking in the ESL group starts with PROB strategies with a mean of 3.77, followed by a mean of 3.17 for both SUP and GLOB strategies, means and standard deviations are shown in Table 3. The pattern is high PROB, medium SUP, medium GLOB, which is the same pattern as the EFL's. The pattern is best seen in Figure 1. The overall strategy use is medium for both. Table 5 shows the general pattern.

Table 5: the rank order of strategy uses according to types

	ESL	N	M	EFL	N	M	RANK
Problem Solv. PROB		71	3.77		70	3.56	High
Support SUP			3.17			3.22	Medium
Global GLOB			3.17			2.96	Medium
Overall			3.32			3.18	Medium

To answer the third question, *do reading strategies correlate with reading comprehension in each context? Specifically, to what extent does context help operationalize the use of strategies?*

The relationship between reading comprehension score and the level of strategy use was tackled through conducting Pearson's Correlation Test for each group. The EFL group results were found not significant for the three types of strategies. Table 6 displays the correlation test. Thus, there is no relationship between reading level and strategy used for the EFL group.

Table 6: Pearson Correlation for the EFL group (TOFEL score vs. reading strategies)

Type of Strategy		TOFEL Score
Global	Pearson Correlation	-.033
	Sig. (2-tailed)	.789

	N	70
Problem-solving strategies	Pearson Correlation	.017
	Sig. (2-tailed)	.890
	N	70
support strategies	Pearson Correlation	-.181
	Sig. (2-tailed)	.133
	N	70
overall strategies	Pearson Correlation	-.067
	Sig. (2-tailed)	.581
	N	70

The ESL group, however, exhibited some relationship between reading strategies and reading comprehension. The Pearson Correlation test was run for this group and found that Problem Solving Strategies and reading comprehension ability as measured by the TOFEL were significantly, positively correlated, ( $r= 0.273$  and  $p=0.21$ ) as could be seen in table 7.

Table 7: Pearson Correlation for ESL group (TOFEL score vs. reading strategies)

Type of Strategy		TOFL Score
Global	Pearson Correlation	.175
	Sig. (2-tailed)	.144
	N	71
Problem solving strategies	Pearson Correlation	.273*
	Sig. (2-tailed)	.021
	N	71
support strategies	Pearson Correlation	.026
	Sig. (2-tailed)	.828
	N	71
overall strategies	Pearson Correlation	.162
	Sig. (2-tailed)	.178
	N	71

Then the answer to the third question is yes. The ESL learning environment provoked more use of problem-solving strategies as opposed to the EFL group in which there was no association found between strategy uses and reading comprehension.

#### 4. Discussion

There are six major findings:

1. Learning environment/context (EFL vs EFL) was not found influential in the test results. The results were not significantly different in this study.
2. There was a significant difference in some of the strategies employed in the two contexts: namely, the ESL used the GLOB strategies more.
3. The other three individual strategies were found significantly different between the two groups.
4. The rank order of strategy use between the two groups was similar at the macro level. (High PROB-Medium GLOB-Medium SUP- Medium Overall)
5. The EFL group did not show any significant degree of association between reading results and strategy use.
6. The ESL group shows a positive correlation between the reading comprehension test and the problem-solving strategies.

So, what do all these results mean considering what we know thus far? The first result that suggests that learning context is irrelevant to participants' reading performance goes in line with our present-day reality. The two contexts, ESL and EFL, are actually emerging, and the distinction is fading away. The understanding that I came to realize is partially due to the present technologies that are widely used among young learners. Technologies that were not as widely spread when these two terms were coined. Anderson (2004) came to a similar interpretation when he found that the two groups of learners he studied, one of which was ESL group learning English in Utah and an EFL group learning in Costa Rica. The study yielded no statistical differences due to the learning environments. He contends that the distinction between ESL and EFL environments is diminishing, as is the case here.

On one hand, in Saudi Arabia where it is traditionally an EFL situation, learners sometimes spend hours weekly, if not daily, playing videogames with friends all over the world, exchange snap-chat videos, conversing live with each other, etc. Interestingly the lingua franca is English when communicating with one another. They usually keep virtual friends around the globe and they always use English as their preferred language of communication. Therefore, their English input is not limited to the classroom as was the case years earlier.

On the other hand, in the USA, where it is supposed to be a pure ESL context when I arrived in the Midwest to collect the data for this study, I noticed that each one of the participants had a smartphone with an unlimited-internet connection; they would send messages, video chat, send Snapchat messages as I spoke with them. They were obsessed with these phones. They communicate with family and friends in Saudi Arabia as if they were together face to face. This would mean that they live their normal lives virtually with their original societies overseas. The

traditional ESL situation is not likely the case with these participants. This finding goes in line with previous research that suggests that ESL learning environment does not always lead to better acquisition of the target language as opposed to the EFL context (Dewey, 2004; Freed et al., 2004).

Thus, I believe the two contexts have lost the essence of their distinctions where EFL learners have almost unlimited access to the target language and its native speakers and ESL learners lead virtual reality lives with family and friends in their homeland. Thus, the present results are supported logically and empirically.

An additional possible explanation lies within the very nature of skills involved in the process of reading. The type of skills required to carry out a task of reading has little to do with the general learning environment. The learning environment, influential as it is found in the literature, affects other areas pertaining to speaking and listening aspects of SLA, as attested to in many studies, some of which are cited earlier in this paper. However, reading skills are usually acquired as part of learning to read in L1, and most of what is involved in reading in L2 is a transfer of skills rather than learning a new separate set of skills as explained in Chuang et al. (2012).

As for the second finding, the ESL group shows more reported use of the GLOB strategies. The apparent reason for this difference is that this group has acquired more sensitivity to planning and thinking about the task at hand before they actually do the reading. This is due to their overwhelming amount of reading that they were supposed to cover, as reported by many of them. They believe that this set of strategies would help them select and priorities their selections. On the other hand, the amount of English reading required by their EFL counterparts is much less as they would read in their native language too which is not the case in the US universities.

This finding comes in line with the concluding assertions of Riley and Harsch (1999) when they found that ESL learners use more metacognitive learning strategies than their EFL counterparts which are mostly the same metacognitive reading strategies, the GLOB in the present study. They ascribed the outperformance of their ESL versus their EFL group to four possible reasons: 1) ESL learners are more motivated and active, 2) they have more access and need to use English and therefore need to employ more strategies, 3) instruction in strategies is more focused in ESL environment, and 4) learners remain in the target language environment. As plausible as these reasons sound, the participants in this study expressed a degree of anxiety and awareness of the importance and the central role of reading in their

academic success, which to my understanding explains the reported higher use of the GLOB strategies area more than their EFL counterparts.

The third finding supports the second finding discussed above; it stipulates that the two groups had three other strategies that were significantly different. Strategy 9 in the problem-solving subset is reported to be used more by the ESL group which is ‘I try to get back on track when I lose concentration. Even though the EFL reported high use of this strategy, but the ESL still did much higher. In addition, Strategy 22 of the supported subset says that the reader goes back and forth in the text to find relationships among ideas in it; a support strategy that is very handy for more reading comprehension. As mentioned above, it appears that the ESL group is more aware of what is at stake when they read, as a thorough understanding of their academic reading is vital to their success. The social and context pressure is much more than their peers in Saudi Arabia are. The EFL learners are more relaxed as they pursue their degrees in their homeland compared to their ESL counterparts who traveled and had to go through many adjustments before and after they enroll in their respective universities. The consequences of failing for the ESL are much higher than those for the EFL group.

The third strategy that was found different is SUP Strategy 29, which reads ‘when reading, I translate from English into Arabic’. The EFL group reported higher use of this strategy than the ESL participants did. The apparent reason is the availability and possibly the excessive use of Arabic by the teachers in classrooms. Arabic is heard and used all the time in the university and translating from English into Arabic and vice versa is widely practiced; a situation that is rarely existent in the ESL environment, as was reviewed in Shin et al. (2020).

Despite all the aforementioned differences, the overall strategy use is similar in both ESL and EFL groups. Both groups used the three subsets of reading strategies within the same ranges, high PROB, medium GLOB, and medium SUP. Building on the reality that the two contexts becoming more similar, so were the strategy uses a general pattern. It might be hypothesized that the two concepts are in the constant move towards each other going forward. This finding consolidates Anderson’s (2004) findings when he found that both ESL and EFL groups exhibited no significant difference in the overall reading strategies. However, he found a significant difference between the problem-solving subsets, not the global strategies that were found in this study. The fact that this study’s population belongs to a specific culture and a shared L1 (Arabic) may make the results vary. Students’ L1 of Anderson’s study is/are unknown. Thus, different cultural and linguistic backgrounds could provide different results of the same reading strategies set.

As for the second part of the study, the relationship between reading strategy perceived use and actual performance of reading comprehension task, the correlation test did not yield a significant relationship between the EFL group and their performance on the TOFEL. One possible explanation is that the EFL group did not experience the same pressure for reading accuracy, as was the case with ESL group. On the other hand, the ESL group shows a positive relationship between the PROB strategies and their performance on the TOFEL. Although this subset was the most used by both groups, the significant relationship was only displayed with the ESL which could be added to the evidence that this group is more concerned with reading accuracy as the PROB strategies are localized, focused repair strategies.

## 5. Conclusion

The present study was carried out to explore the possible impact that different learning environments could have on reading abilities for a certain group of English language learners, Saudi Arabian college students. The fact that the two groups were receiving their English language instruction in two different contexts led to believe that they would yield different results and the outcome was predicted to be different. The expected result was that the ESL group would have scored significantly higher than the EFL group on a reading standardized test. However, the result was counterintuitive. The two groups performed similarly, and the difference in TOFEL results was not significant. We might conclude that since the two contexts (the ESL and EFL) are drawing closer towards one another in terms of properties due to ever-advancing communication technologies, the two groups performed comparably.

Furthermore, reading is one area that could be developed in various environments with comparable efficiency. As was contended in the literature that reading skills are learned once in the first language, and then learners of a second/additional language would transfer those reading skills to their new language. The learning environment whether it was an ESL or an EFL might have little to do with reading abilities outcome as was found in Anderson (2004) and in this study.

Thus, as Grabe (2002) suggested, teachers should concentrate on instructing learners to come out of their shells as strategic readers rather than teaching reading strategies. The distinction, though vague, but vital. The strategic reader knows when, where, how to use a certain strategy rather than just learning/memorizing a list of reading strategies that are not ready to put in use. Putting reading strategies to optimal use is the goal. However, memorizing or sheer knowledge about groups of reading strategies could explain the caution that almost every researcher who studied reading strategies would end up their studies by asking their readers to understand the

results with caution as reporting use or knowledge about reading strategies might not entail using them properly.

The reading strategies were found similar at the macro level, but different in certain areas at the micro-level. The differences could be ascribed to social differences that are dominating in each context. The type of pressure for reading accuracy under which the two groups operate was different. We might conclude that ESL participants were more aware of the need for GLOB and PROB strategies than their EFL counterpart was.

### **5.1 Implications and future research**

The findings of this study have some implications. The ensuing suggestions are not meant to be exclusive. The readers are encouraged to interpret the results for their own purposes. The study presents a challenge rather than a solution for reading English as a second/foreign language. First, for the EFL students, reading importance and quantity should be emphasized. The fact that the EFL group did not match the ESL in their use of GLOB strategies indicates a weakness in their planning and prereading skills. This area should be dealt with by designing lesson plans geared towards these points and make them part of the reading assessment.

Second, the EFL group did not demonstrate a relationship between their test results of reading comprehension and reported use of reading strategies. One indication suggests that this group is not using reading strategies effectively. Had they done so, they should have shown some degree of an association like the ESL group who demonstrated a relationship between test results and the problem-solving strategies set. A revision of reading strategies instruction and curriculum should be conducted.

As for the ESL group, the fact that they used the GLOB strategies more does not mean that they have used them enough. The rate is still medium which is within the same range as the EFL's. This group needs to hone their GLOB and SUP strategies skills to help them perform better. After all, their scores on the test were comparable to the EFL group. It seems that concentrated strategy instruction and assessment would be beneficial.

The results of this study should be viewed with caution. It appears that learners from one culture approach reading and reading strategies differently. The groups studied here belong to a specific culture, and the results might be inapplicable to learners from different cultures. Further research studies with learners from different cultural backgrounds are needed. Thus, replications of this study would be one way of finding out.

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## Appendix A: The TOFEL Reading Test

### Passage 1

One of the most popular literary figures in American literature is a woman who spent almost half of her long life in China, a country on a continent thousands of miles from the United States. In her lifetime she earned this country's most highly acclaimed literary award: the Pulitzer Prize, and also the most prestigious form of literary recognition in the world, the Nobel Prize for Literature. Pearl S. Buck was almost a household word throughout much of her lifetime because of her prolific literary output, which consisted of some eighty - five published works, including several dozen novels, six collections of short stories, fourteen books for children, and more than a dozen works of nonfiction. When she was eighty years old, some twenty - five volumes were awaiting publication. Many of those books were set in China, the land in which she spent so much of her life. Her books and her life served as a bridge between the cultures of the East and the West. As the product of those two cultures, she became as she described herself, "mentally bifocal." Her unique background made her into an unusually interesting and versatile human being. As we examine the life of Pearl Buck, we cannot help but be aware that we are in fact meeting three separate people: a wife and mother, an internationally famous writer, and a humanitarian and philanthropist. One cannot really get to know Pearl Buck without learning about each of the three. Though honored in her lifetime with the William Dean Howell Medal of the American Academy of Arts and Letters in addition to the Nobel and Pulitzer prizes. Pearl Buck as a total human being, not only a famous author. is a captivating subject of study.

1. What is the author's main purpose in the passage?  
(A) To offer a criticism of the works of Pearl Buck.  
(B) To illustrate Pearl Buck's views on Chinese literature  
(C) To indicate the background and diverse interests of Pearl Buck  
(D) To discuss Pearl Buck's influence on the cultures of the East and the West
2. According to the passage, Pearl Buck is known as a writer of all of the following EXCEPT  
(A) novels                      (B) children's books              (C) poetry                      (D) short stories
3. Which of the following is NOT mentioned by the author as an award received by Pearl Buck?  
(A) The Nobel Prize                      (B) The Newberry Medal  
(C) The William Dean Howell medal              (D) The Pulitzer prize
4. According to the passage, Pearl Buck was an unusual figure in American literature in that she  
(A) wrote extensively about a very different culture  
(B) published half of her books abroad  
(C) won more awards than any other woman of her time  
(D) achieved her first success very late in life
5. According to the passage, Pearl Buck described herself as "mentally bifocal" to suggest that she was  
(A) capable of resolving the differences between two distinct linguistic systems  
(B) keenly aware of how the past could influence the future  
(C) capable of producing literary works of interest to both adults and children  
(D) equally familiar with two different cultural environments
6. The author's attitude toward Pearl Buck could best be described as  
(A) indifferent                      (B) admiring                      (C) sympathetic                      (D) tolerant

## Passage 2

The first English attempts to colonize North America were controlled by individuals rather than companies. Sir Humphrey Gilbert was the first Englishman to send colonists to the New World. His initial expedition, which sailed in 1578 with a patent granted by Queen Elizabeth was defeated by the Spanish. A second attempt ended in disaster in 1583, when Gilbert and his ship were lost in a storm. In the following year, Gilbert's half-brother, Sir Walter Raleigh, having obtained a renewal of the patent, sponsored an expedition that explored the coast of the region that he named "Virginia." Under Raleigh's direction efforts were then made to establish a colony on Roanoke Island in 1585 and 1587. The survivors of the first settlement on Roanoke returned to England in 1586, but the second group of colonists disappeared without leaving a trace. The failure of the Gilbert and Raleigh ventures made it clear that the tasks they had undertaken were too big for anyone colonizer. Within a short time, the trading company had supplanted the individual promoter of colonization.

1. Which of the following would be the most appropriate title for the passage?
  - (A) The Regulation of Trading Companies
  - (B) British - Spanish Rivalry in the New World
  - (C) Early Attempts at Colonizing North America
  - (D) Royal Patents Issued in the 16th Century
2. The passage states which of the following about the first English people to be involved in establishing colonies in North America?
  - (A) They were requested to do so by Queen Elizabeth.
  - (B) They were members of large trading companies.
  - (C) They were immediately successful.
  - (D) They were acting on their own.
3. According to the passage, which of the following statements about Sir Humphrey Gilbert is true?
  - (A) He never settled in North America.
  - (B) His trading company was given a patent by the queen.
  - (C) He fought the Spanish twice.
  - (D) He died in 1587.
4. When did Sir Walter Raleigh's initial expedition set out for North America?
  - (A) 1577
  - (B) 1579
  - (C) 1582
  - (D) 1584
5. Which of the following can be inferred from the passage about members of the first Roanoke settlement?
  - (A) They explored the entire coastal region.
  - (B) Some did not survive.
  - (C) They named the area "Virginia".
  - (D) Most were not experienced sailors.
6. According to the passage, the first English settlement on Roanoke Island was established in
  - (A) 1578
  - (B) 1583
  - (C) 1585
  - (D) 1587
7. According to the passage, which of the following statements about the second settlement on Roanoke Island is true?
  - (A) Its settlers all gave up and returned to England.
  - (B) It lasted for several years.
  - (C) The fate of its inhabitants is unknown.
  - (D) It was conquered by the Spanish.

## Passage 3

Insects' lives are very short and they have many enemies, but they must survive long enough to breed and perpetuate their kind. The less insect-like they look, the better their chance of survival. To look "inedible" by resembling or imitating plants is a deception widely practiced by insects. Mammals rarely use this type of camouflage, but many fish and invertebrates do.

The stick caterpillar is well named. It is hardly distinguishable from a brown or green twig. This caterpillar is quite common and can be found almost anywhere in North America. It is also called "measuring worm" or "inchworm." It walks by arching its body than stretching out and grasping the branch with its front feet then looping its body again to bring the hind feet forward. When danger threatens, the stick caterpillar stretches its body away from the branch at an angle and remains rigid and still, like a twig, until the danger has passed.

Walking sticks, or stick insects, do not have to assume a rigid, twig-like pose to find protection; they look like inedible twigs in any position. There are many kinds of walking sticks, ranging in size from the few inches of the North American variety to some tropical species that may be over a foot long. When at rest their front legs are stretched out, heightening their camouflage. Some of the tropical species are adorned with spines or ridges, imitating the thorny bushes or trees in which they live.

Leaves also seem to be a favorite object for insects to imitate. Many butterflies can suddenly disappear from view by folding their wings and sitting quietly among the foliage that they resemble.

- What is the main subject of the passage?
  - Caterpillars that live in trees
  - The feeding habits of insects
  - How some insects camouflage themselves
  - Insects that are threatened with extinction
- In lines 1 and 4, the word "enemies" refers to
 

(A) other creatures competing for space	(B) extreme weather conditions
(C) creatures that eat insects	(D) inedible insects
- According to the passage, how does the stick caterpillar make itself look like a twig?
 

(A) By holding its body stiff and motionless	(B) By looping itself around a stick
(C) By changing the color of its skin	(D) By laying its body flat against a branch
- Which of the following is true of stick insects?
  - They resemble their surroundings all the time.
  - They make themselves look like other insects.
  - They are camouflaged only when walking.
  - They change color to make themselves invisible.
- Which of the following are NOT mentioned in the passage as objects that are imitated as a means of protection?
 

(A) Thorns	(B) Flowers	(C) Leaves	(D) Sticks
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- In which paragraph does the author describe the way in which stick caterpillars move?
 

(A) Paragraph one	(B) Paragraph two
(C) Paragraph three	(D) Paragraph four

7. Where in the passage does the author describe the habitat of tropical stick insects?
- (A) Line 7  
(B) Lines 10-11  
(C) Lines 13-15  
(D) Lines 16-17

#### Passage 4

The oldest living things on Earth are trees. Some of California's sequoias have for four thousand years looked down on the changes in the landscape and the comings and goings of humans. They sprouted from tiny seeds about the time the Egyptian pyramids were being built. Today these giant patriarchs seem as remote and inaccessible as the rocks and mountain cliffs on which they grow, like cathedral columns holding up the sky. It is hard to imagine them playing any part in the lives of mere humans or being in any way affected by the creatures that pass at their feet.

Lesser trees, however, have played an intimate role in the lives of people since they first appeared on Earth. Trees fed the fires that warmed humans: they provided shelter, food and medicine, and even clothing. They also shaped people's spiritual horizons. Trees expressed the grandeur and mystery of life, as they moved through the cycle of seasons, from life to death and back to life again. Trees were the largest living things around humans and they knew that some trees had been standing on the same spot in their parent's and grandparents' time, and would continue to stand long after they were gone. No wonder these trees became symbols of strength, fruitfulness, and everlasting life.

- What is the main idea of the passage?
  - Trees grow to great heights.
  - Trees have been important to people throughout history.
  - Trees make humans seem superior
  - Trees that grow in California are very old.
- Which of the following is NOT mentioned in the passage as a way in which people have used trees?
 

(A) For furniture	(B) For fuel	(C) For housing	(D) For
nourishment			
- In line 4, the phrase "giant patriarchs" could best be replaced by which of the following?
 

(A) tiny seeds	(B) important leaders
(C) towering trees	(D) Egyptian pyramids
- In line 11, the word "they" refers to which of the following?
 

(A) Trees	(B) Grandeur and mystery
(C) Seasons	(D) People's spiritual horizons
- The author implies that, compared with sequoias, other trees have
 

(A) been in existence longer	(B) adapted more readily to their
environments	
(C) been affected more by animals	(D) had a closer relationship with people
- Where in the passage does the author make a comparison between trees and parts of a building?
 

(A) Line 1	(B) Lines 4-5	(C) Lines 9-11	(D) Lines 12-14
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#### Passage 5

British Columbia is the third-largest Canadian province both in area and population. It is nearly three times as large as Texas and extends 800 miles (1,280 km) north from the United States border. It includes Canada's entire west coast and the islands just off the coast.

Most of British Columbia is mountainous, with long, rugged ranges running north and south. Even the coastal islands are the remains of a mountain range that existed thousands of years ago. During the last Ice Age, this range was scoured by glaciers until most of it was beneath the sea. Its peaks now show as islands scattered along the coast.

The southwestern coastal region has a humid mild marine climate. Sea winds that blow inland from the west are warmed by a current of warm water that flows through the Pacific Ocean. As a result winter temperatures average above freezing and summers are mild. These warm western winds also carry moisture from the ocean. Inland from the coast, the winds from the Pacific meet the mountain barriers of the coastal ranges and the Rocky Mountains. As they rise to cross the mountains, the winds are cooled, and their moisture begins to fall as rain. On some of the western slopes, almost 201 inches (500 cm) of rainfall each year.

More than half of British Columbia is heavily forested. On mountain slopes that receive plentiful rainfall, huge Douglas firs rise in towering columns. These forest giants often grow to be as much as 300 feet (90 m) tall, with diameters up to 10 feet (3 m). More lumber is produced from these trees than from any other kind of tree in North America. Hemlock, red cedar, and balsam fir are among the other trees found in British Columbia.

1. In which part of British Columbia can a mild tree found in British Columbia?
 

(A) In the southwest	(B) Inland from the coast
(C) In the north	(D) On the entire west coast
2. In line 16, the word "heavily" could best be replaced by which of the following?
 

(A) weightily	(B) densely	(C) sluggishly	(D) seriously
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3. Which of the following is NOT mentioned as a climate be found?
 

(A) Hemlock	(B) Cedar	(C) Fir	(D) Pine
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4. Where in the passage does the author mention the effect the mountains have on winds?
 

(A) Lines 4 – 5	(B) Lines 8 – 10
(C) Lines 13– 14	(D) Lines 16 – 17

#### Appendix B: the demographic survey and the SORS in Arabic

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الاسم: ----- 1. العمر: -----

2. ماهي هي المدة التي قضيتها في دراسة اللغة الإنجليزية بالسنوات؟ -----
3. كيف تقيم لغتك الإنجليزية مقارنة مع زملائك في الفصل؟ (ضع دائرة على مستوى واحد)
- \_\_ ممتاز \_\_ جيد جدا \_\_ اعلى من المتوسط \_\_ متوسط \_\_ اقل من المتوسط \_\_ ضعيف
4. هل تلقيت تعليمك الثانوي او المتوسط في مدارس خاصة تهتم باللغة الإنجليزية؟ نعم \_\_ لا
5. هل حصلت على دورة في اللغة الإنجليزية في معاهد خارج المملكة؟ 1. \_\_ نعم 2. \_\_ لا
6. كم من الوقت تقضي من القراءة الحرة لنصوص انجليزيه (عدا النصوص المقررة) يوميا
1. لا شيء \_\_ 2. ربع ساعة او اقل \_\_ 3. نصف ساعة \_\_ 4. ساعة \_\_ 3. ساعة الى ساعتين \_\_ 6. ساعتين او أكثر \_\_
7. رتب العناصر الآتية (من 1 الى 4) من حيث أهميتها.
- \_\_ المفردات او الكلمات \_\_ قواعد اللغة الإنجليزية \_\_ الاصوات والنطق \_\_ الهجاء \_\_

((أخي الطالب: هذا الاستبيان ليس اختبارا لمعلوماتك عن القراءة باللغة الإنجليزية؛ لذا فإن الدقة في الإجابة ستساعد الباحث على الخروج بنتائج دقيقة سيكون من شأنها تطوير تدريس مادة القراءة ان شاء الله))

للإجابة عليك الا ان توضح ما إذا كنت تستعمل بعض هذه الطرق في قارئتك لنصوص اللغة الإنجليزية في مقررأتك الدراسية. ضع دائرة ع الرقم الذي يعكس مدى استعمالك لكل هذه الطرق على النحو الآتي:

1. لا استعملها ابدًا 3. استعملها أحيانًا (50%)
2. استعملها نادرا (أقل من 30%) 4. أستعملها غالبا (60% فأكثر)
5. استعملها دائما

الطريقة	1 لا	2 نادرا	3 احيانا	4 غالبا	5 دائما
1. عندا اقرا نصا باللغة الإنجليزية يكون لي هدف مثل: الاستعداد لامتحان او لمعرفة المزيد من المعلومات في موضوع معين او القراءة للمتعة.	1	2	3	4	5
2 ادون ملاحظات خلال قراءتي للنص الإنجليزي لتساعدني على فهم ما اقراه.	1	2	3	4	5
3 أفكر فيما افهمه من معلومات سابقه عن موضوع النص الإنجليزي لتساعدني على فهم ما اقراه.	1	2	3	4	5
4. أقوم بمسح القطعة الإنجليزية قبل تفحص محتواها.	1	2	3	4	5

5	4	3	2	1	5. عندما يصبح النص الإنجليزي صعبا اقرا الجزء الصعب بصوت عالي حتى اسمع نفسي.
5	4	3	2	1	6. أفكر ما إذا محتوى النص يتوافق مع هدفي للقراءة.
5	4	3	2	1	7. اقرا النص الإنجليزي بهدوء وتمعن حتى أتأكد من فهم ما أقرأه.
5	4	3	2	1	8. قبل القراءة استعرض النص الإنجليزي بملاحظة بعض خصائصه كطوله وترتيب اجزائه وفقراته.
5	4	3	2	1	9. احاول الرجوع الى مساري السابق عندما أفقد التركيز خلال قراءة النص الإنجليزي.
5	4	3	2	1	10. اضع خطأً تحت المعلومات المهمة في النص حتى اتذكرها.
5	4	3	2	1	11. اضبط سرعتي في القراءة تبعا لما أقرأه من حيث الصعوبة والسهولة.
5	4	3	2	1	12. احدد ما يجب قراءته بتمعن وما يمكن أهمله في النص.
5	4	3	2	1	13. عندما أمر على كلمات لا أعرفها في النص ألجأ الى القاموس لاستخراج معانيها.
5	4	3	2	1	14. عندما يصبح النص صعباً، فإني أمعن النظر فيما أقرأه.
5	4	3	2	1	15. أحاول الاستفادة من الجداول والاشكال والصور الموجودة في النص لفهمه بشكل أفضل.
5	4	3	2	1	16 أتوقف من وقت لآخر وأفكر فيما أقرأه.
5	4	3	2	1	17 استخدم دلائل سياق النص لتساعدني على فهم ما أقرأه (أحاول استخدام النص بكامله ليساعدني على فهم الأجزاء التي لا أفهمها أو الكلمات التي لا أعرف معناها).
5	4	3	2	1	18. أحاول إعادة صياغة الجمل في النص بكلماتي واسلوبي لتساعدني على فهم ما أقرأه.
5	4	3	2	1	19. أحاول ان أتصور او اتخيل المعلومات لتساعدني في تذكر ما أقرأه.
5	4	3	2	1	20. استخدم خصائص الطباعة مثل الخط العريض والمائل للتعرف على المعلومات الرئيسية في النص
5	4	3	2	1	21. أقوم بتحليل وتقييم المعلومات المقدمة في النص
5	4	3	2	1	22. أتقدم ثم اعيد القراءة لإيجاد العلاقات بين أفكار النص

5	4	3	2	1	23. اتحقق من فهمي عندما اصادف معلومات جديدة
5	4	3	2	1	24. أحاول تخمين مضمون النص عندما اقرؤه
5	4	3	2	1	25. عنما يصبح النص صعبا، اعيد قراءته لزيادة فهمي له.
5	4	3	2	1	26. اسال نفسي اساله اود ان أجد إجابات لها في النص.
5	4	3	2	1	27. اتحقق مما إذا توقعتني عن محتوى النص كانت صحيحة عند الانتهاء من القراءة ام لا.
5	4	3	2	1	28. عنما اقرء أأخمن معاني الكلمات او العبارات الجديدة
5	4	3	2	1	29. عنما اقرء اترجم من الإنجليزية الى العربية
5	4	3	2	1	30. عندما اقرء أفكر في المعلومات او محتوى النص باللغتين العربية والإنجليزية.

أسمح باستعمال نتائج هذه الاستبانة لغرض البحث العلمي فقط: التوقيع: -----

#### Appendix C: dependent Sample t-test of the eight Significant Items.

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Q6	Equal variances assumed	.082	.775	-2.669	139	.009	-.553	.207
	Equal var. not assumed			-2.670	138.930	.008	-.553	.207
Q9	Equal variances assumed	3.688	.057	-2.582	139	.011	-.467	.181
	Equal var. not assumed			-2.576	125.628	.011	-.467	.181
Q12	Equal variances assumed	.908	.342	-2.176	139	.031	-.436	.200
	Equal var. not assumed			-2.177	138.829	.031	-.436	.200
Q17	Equal variances assumed	.139	.709	-2.635	139	.009	-.475	.180
	Equal var. not assumed			-2.635	139.000	.009	-.475	.180
Q20	Equal variances assumed	1.897	.171	2.292	139	.023	.523	.228

	Equal var. not assumed			2.290	136.397	.024	.523	.228	
Q21	Equal variances assumed	.349	.556	-	139	.003	3.079	-.560	.182
	Equal var. not assumed			-	138.990	.003	3.079	-.560	.182
Q22	Equal variances assumed	1.727	.191	-	139	.040	2.072	-.411	.198
	Equal var. not assumed			-	135.835	.040	2.070	-.411	.199
Q29	Equal variances assumed	2.520	.115	4.177	139	.000	4.177	.827	.198
	Equal var. not assumed			4.176	138.780	.000	4.176	.827	.198

#### Appendix D: t-test of the 30 reading strategies between the EFL and ESL groups

Independent Samples Test										
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Conf. Interval	
									Lower	Upper
Q1	Equal variances assumed	3.626	.059	.240	139	.810	.038	.157	-.273	.349
	Equal variances not assumed			.241	131.670	.810	.038	.157	-.273	.349
Q2	Equal variances assumed	1.383	.242	-.709	139	.479	-.154	.218	-.585	.276
	Equal variances not assumed			-.709	138.538	.479	-.154	.218	-.584	.276
Q3	Equal variances assumed	.868	.353	-.669	139	.505	-.119	.178	-.471	.233
	Equal variances not assumed			-.669	136.071	.505	-.119	.178	-.471	.233
Q4	Equal variances assumed	.207	.650	-1.518	139	.131	-.339	.223	-.780	.103
	Equal variances not assumed			-1.517	138.628	.131	-.339	.223	-.780	.103
Q5	Equal variances assumed	.003	.953	-.277	139	.782	-.066	.238	-.535	.404
	Equal variances not assumed			-.277	138.871	.782	-.066	.238	-.535	.404

Q6	Equal variances assumed	.082	.775	-2.669	139	.009	-.553	.207	-.962	-.143
	Equal variances not assumed			-2.670	138.930	.008	-.553	.207	-.962	-.143
Q7	Equal variances assumed	.001	.971	-.576	139	.565	-.100	.174	-.444	.244
	Equal variances not assumed			-.577	138.953	.565	-.100	.174	-.444	.243
Q8	Equal variances assumed	5.876	.017	-1.785	139	.076	-.394	.221	-.830	.042
	Equal variances not assumed			-1.783	132.595	.077	-.394	.221	-.831	.043
Q9	Equal variances assumed	3.688	.057	-2.582	139	.011	-.467	.181	-.824	-.109
	Equal variances not assumed			-2.576	125.628	.011	-.467	.181	-.825	-.108
Q10	Equal variances assumed	.553	.458	-.750	139	.454	-.144	.192	-.524	.236
	Equal variances not assumed			-.751	137.394	.454	-.144	.192	-.524	.236
Q11	Equal variances assumed	4.195	.042	.056	139	.955	.010	.175	-.336	.356
	Equal variances not assumed			.056	130.350	.955	.010	.175	-.337	.356
Q12	Equal variances assumed	.908	.342	-2.176	139	.031	-.436	.200	-.831	-.040
	Equal variances not assumed			-2.177	138.829	.031	-.436	.200	-.831	-.040
Q13	Equal variances assumed	1.165	.282	.461	139	.646	.095	.207	-.314	.505
	Equal variances not assumed			.461	137.094	.645	.095	.207	-.314	.504
Q14	Equal variances assumed	.283	.596	-.574	139	.567	-.104	.182	-.464	.255
	Equal variances not assumed			-.574	138.331	.567	-.104	.182	-.464	.255
Q15	Equal variances assumed	.233	.630	1.639	139	.103	.271	.165	-.056	.597

	Equal variances not assumed			1.640	138.040	.103	.271	.165	-.056	.597
Q16	Equal variances assumed	2.244	.136	-1.897	139	.060	-.383	.202	-.782	.016
	Equal variances not assumed			-1.895	135.771	.060	-.383	.202	-.783	.017
Q17	Equal variances assumed	.139	.709	-2.635	139	.009	-.475	.180	-.832	-.119
	Equal variances not assumed			-2.635	139.000	.009	-.475	.180	-.832	-.119
Q18	Equal variances assumed	.045	.833	.689	139	.492	.146	.212	-.273	.565
	Equal variances not assumed			.689	138.858	.492	.146	.212	-.273	.565
Q19	Equal variances assumed	.012	.913	-1.091	139	.277	-.220	.202	-.619	.179
	Equal variances not assumed			-1.091	138.895	.277	-.220	.202	-.619	.179
Q20	Equal variances assumed	1.897	.171	2.292	139	.023	.523	.228	.072	.974
	Equal variances not assumed			2.290	136.397	.024	.523	.228	.071	.975
Q21	Equal variances assumed	.349	.556	-3.079	139	.003	-.560	.182	-.919	-.200
	Equal variances not assumed			-3.079	138.990	.003	-.560	.182	-.919	-.200
Q22	Equal variances assumed	1.727	.191	-2.072	139	.040	-.411	.198	-.804	-.019
	Equal variances not assumed			-2.070	135.835	.040	-.411	.199	-.804	-.018
Q23	Equal variances assumed	.132	.717	-1.854	139	.066	-.320	.172	-.660	.021
	Equal variances not assumed			-1.854	138.909	.066	-.320	.172	-.660	.021
Q24	Equal variances assumed	2.904	.091	-1.749	139	.082	-.346	.198	-.738	.045
	Equal variances not assumed			-1.747	134.921	.083	-.346	.198	-.739	.046

Q25	Equal variances assumed	5.095	.026	-1.631	139	.105	-.300	.184	-.664	.064
	Equal variances not assumed			-1.629	135.261	.106	-.300	.184	-.665	.064
Q26	Equal variances assumed	.413	.521	-.832	139	.407	-.174	.209	-.587	.239
	Equal variances not assumed			-.832	138.672	.407	-.174	.209	-.587	.239
Q27	Equal variances assumed	.000	.997	-1.675	139	.096	-.352	.210	-.768	.064
	Equal variances not assumed			-1.674	138.719	.096	-.352	.210	-.768	.064
Q28	Equal variances assumed	.624	.431	-.637	139	.525	-.118	.185	-.485	.249
	Equal variances not assumed			-.637	137.116	.525	-.118	.185	-.484	.248
Q29	Equal variances assumed	2.520	.115	4.177	139	.000	.827	.198	.436	1.219
	Equal variances not assumed			4.176	138.780	.000	.827	.198	.436	1.219
Q30	Equal variances assumed	1.199	.275	1.892	139	.061	.389	.206	-.017	.795
	Equal variances not assumed			1.892	138.977	.061	.389	.206	-.017	.795



## Communication Strategies of Engineering Students with Low, Moderate and High Anxiety in a Group Discussion Task

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### Abstract

Foreign language anxiety has been burgeoning research in the EFL context for over three decades. Still, limited studies have explored communication strategies (CSs) of students with varying anxiety levels in a group discussion task. The current study reports the foreign language anxiety experienced by first-year engineering students in the English language then investigates CSs used when performing a discussion task, of which the topic and discussants are chosen randomly. Based on a survey questionnaire, findings showed that the students' highest anxiety-provoking situation was 'when they speak without preparation' and the lowest anxiety-provoking situation was when 'they are getting left behind.' In the group discussion task, the first-year engineering students with low anxiety exhibited stalling CSs, specifically the use of fillers, hesitation devices, gambits, self and other-repetition, and pauses. Meanwhile, high and moderate anxious students used all types of CSs, including avoidance, achievement, stalling,

self-monitoring, and interactional. The use of fillers, hesitation devices, and gambits had the highest percentage of CSs used among students with low, moderate, and high anxiety. While the current study cannot establish how anxiety affects engineering students' specific use of CSs in the discussion task, results have shown that anxiety is prevalent in EFL settings. Moreover, regardless of their anxiety levels, students commonly use CSs to accomplish the task's goal. Future research may explore the bidirectional relationships among task's goal, anxiety, and CSs using real-time anxiety measures in various in-class speaking activities.

**Keywords:** Communication strategies, Engineering Students, Discussion task, Foreign language anxiety

### **Introduction**

The demands of globalization have increased the need to become intelligible and comprehensible when speaking in international settings. Thus, in academia, more communicative practices and speaking tests are prioritized to help students become fluent English speakers.

Speaking English, perhaps, is the most anxiety-provoking situation among students in EFL settings. Undeniably, there are numerous anxiety-provoking situations when studying English, which may hinder the ability to speak fluently, an unformidable language task for anxious students. Many students reported causes of anxiety such as fear of making mistakes, negative evaluation from the teacher or classmates, lack of confidence in speaking, limited lexical knowledge, accented speech, unfamiliar audience, and lack of preparation. As a result, when communicating their ideas in English, students may stutter as they forget the words or may feel reluctant to communicate (Garcia, 2006; MacIntyre, 2002). Some students may abandon the speaking task assigned or do not attend the speaking activity in extreme cases.

Among university students in Science and Technology disciplines, speaking English could be very demanding due to their limited repertoire of technical words, low proficiency, and evaluation panels' demands (Radzuan & Kaur, 2011). The above situations provoke the debilitating nature of anxiety, specifically on their speaking performance (Kaur & Bhangu, 2013; Quinto & Macayan, 2019; Samoilova, Vo & Wilang, 2017; Vo, Samoilova & Wilang, 2017; Spence & Liu, 2013; Wilang & Vo, 2018).

As the challenges of using English to communicate their thoughts in speaking situations in class persist, experts suggested various strategies, such as using communication strategies to accomplish a speaking task. Many students, who feel anxious, may not know some

communication strategies that can be used to be able to help them achieve the goal of a speaking task. Thus, it is essential to understand what communication strategy can be utilized when using English for varying spoken communicative situations in academia.

### *Purposes of the study*

Due to the debilitating nature of anxiety, it is essential to know the anxiety level of engineering students then identify the in-class situations that highly provoke their anxiety. Also, to provide a linguistic resource for anxious students in communicative situations in the classroom, investigating communication strategies is necessary. To this end, two questions are sought in the present study.

- (1) What is the level of anxiety among first-year engineering students? What anxiety-provoking situations do they experience when learning English?
- (2) Is there a difference of communication strategies employed by first-year engineering students with low, moderate, and high anxiety in a group discussion task?

### **Literature review**

#### *Foreign language anxiety in a speaking task*

In EFL settings, Horwitz, Horwitz, and Cope (1986) conceptualized foreign language anxiety (FLA), a situation-specific anxiety, which is grounded on three factors – communication apprehension, test anxiety, and fear of negative evaluation. It is defined as a “*distinct complex construct of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process*” (p. 126). Communication apprehension refers to worries about speaking and listening activities in the class. Test anxiety covers fear of the students to commit mistakes or failure in a task. Fear of negative evaluation arises from worries of being evaluated negatively, for example, by the teacher or peers. This framework has been widely used in FLA research and was modified and adapted based on the study's differing contexts (see Elkhafai, 2005; Al-Saraj, 2013; Khan & Al-Mahrooqi, 2015; MacIntyre, 2002; Mak, 2011; Woodrow, 2006). In the Thai context, Parauwat (2011) found that fear of being less competent than others is another factor that provokes anxiety among first-year university students.

In various communicative situations in the classroom, students may become frightened when they do not understand the language input and ask to speak without preparation. Samoilova, Vo, and Wilang (2017) identified five anxiety-provoking situations specific to two groups of postgraduate engineering students in a Thai university context. Students whose major is Chemical engineering experienced *'unease when doing the test,' 'worry when unprepared,' 'self-conscious when speaking,' 'uncomfortable around native speakers,'* and *'not being relaxed.'* In another group of Food Science engineering students, the anxiety-provoking situations specific to them were *'being embarrassed to volunteer in class'* and *'being nervous and confused when speaking English.'* Among first-year engineering students, Quinto and Macayan (2019) found fear of negative evaluation by the teacher and worries of being criticized and being laughed at by classmates as contributing situations that cause anxiety feelings.

Such anxiety-provoking situations were found to debilitate students' language performance or achievement (Cagatay, 2015; Chen & Chang, 2004; Khaidzir, 2015; Ohata, 2005; Parauwat, 2011; Shao, Weihu & Zhongmin, 2013; Woodrow, 2006). Previous literature established the negative relationships between English speaking anxiety and language or oral performance in the Engineering context. Vo, Samoilova, and Wilang (2017) established negative relationships between anxiety and group presentation performance, anxiety and group discussion performance, and anxiety and final exams. In another study, Quinto and Macayan (2019) found that engineering students with the lowest anxiety level garnered the highest scores in a conversation task. Those students with high anxiety got the lowest scores.

#### *Communication strategies used by EFL students*

Communication strategies (CSs) are defined according to their purpose. Selinker (1972) asserted that CSs are employed to help them communicate with a native speaker when students struggle to produce a foreign language. Faérch and Kasper (1983) suggested that CSs solve communication problems when an individual has insufficient linguistic resources. Meanwhile, Tarone (1980) and Varadi (1980) stated that CSs are tools for joint negotiation of meaning between the speakers. In other words, learners and their interlocutors adapt their linguistic knowledge to make themselves understand each other.

Several taxonomies of CSs were also proposed. Tarone (1981) divided CSs into seven strategies: topic avoidance, message abandonment, paraphrase, coinage (establishing new words), native language switching, miming, and appeal for assistance. Later, Dornyei (1995) classified CSs into two components: avoidance strategies (including sub-categories such as

message abandonment and topic avoidance) and compensatory strategies (circumlocution, approximation, use of the all-purpose word, word coinage, prefabricated pattern, non-linguistic signals, literal translation, foreignizing, code-switching, appeal for help, and stalling or time-gaining). In the same year, Celce-Murcia et al. (1995) developed a more comprehensive and more straightforward taxonomy with five strategies such as avoidance or reduction strategies, achievement or compensatory strategies, stalling or time-gaining, self-monitoring strategies, and interactional strategies (see Methodology).

Among the classifications of CSs, Nakatani's (2006) study showed that message abandonment strategies seemed to be the most frequently used by low proficiency Japanese EFL students. In the Thai context, studies reported that most students tended to use avoidance strategies if they had inadequate linguistic resources (see Chuanchaisit & Prapphal, 2009; Sutthinaphan & Wasanasomsithi, 2017; Wannaruk, 2003). Such findings put the use of CSs in academic context into question. For example, in a speaking task, *are avoidance strategies helpful to accomplish the goal?*

Dornyei and Scott (1997) viewed CSs as problem-solving mechanisms. They suggested that CSs can resolve four types of communication problems: own-performance problems, others-performance problems, resource deficit, and processing time pressure. Own-performance problems occurred when the speaker said something incorrectly; the strategies used contain self-repair, self-rephrasing, and own-accuracy check. Whereas, others-performance problems associate with the interlocutor's speech problem; the strategy for this issue involves meaningful negotiation strategies such as asking for repetition and guessing. Resource deficit concerns that the speaker has insufficient knowledge of the content one is talking about; the strategy can include message reduction (topic avoidance), message abandonment, circumlocution, approximation, and code-switching. Processing time pressure is the speakers' intention to gain more time in communication; the strategies used for this situation are fillers and repetitions. Likewise, CSs can help the interlocutors accomplish mutual understanding. Tarone (1981) provided three criteria regarding the joint attempts of two interlocutors to assent on meaning when linguistic structures are not likely to be shared. First, a speaker wants to communicate a meaning X to an interlocutor. Then, the speaker recognized that sociolinguistic structure desired to communicate meaning X is not shared with the interlocutor. Finally, the speaker decides to: a) avoid - not attempt to communicate meaning X or b) attempt - alternate meanings to communicate meaning X. When it seems clear to the speaker that there is shared meaning, the speaker stops trying alternatives. By taking into consideration, it can be noticed that

whether CSs are applied for problem-solving or building mutual understanding, the outcome for using CSs is to support the interlocutors reach communication goals.

However, some CSs may not always represent useful tools for communication in academic contexts. Duvall et al. (2014) analyzed and synthesized several studies regarding filler words to explain and correct the phenomenon of filler words in the English language. The researchers investigated the causes of filler words (such as nervousness, infrequent words, and divided attention), their impact on the speaker's credibility, their impact on the listener's comprehension, and possible techniques to develop communication skills for the interlocutors. The overall findings showed that the excessive use of filler words could decrease the speaker's credibility since the speaker can be seen as unprepared or inexperienced. The most proficient speech took place when filler words were applied in moderate frequency. Hence, it seemed preferable if there were little or no uses for filler words. Also, avoidance strategies such as topic avoidance and message abandonment are likely to degenerate communication abilities. Topic avoidance is about avoiding discussion topics or concepts due to language difficulties, while message abandonment is how the speaker leaves a message unfinished due to language difficulties. Ya-ni (2007) argued that these strategies might not be productive ways for EFL students to learn a target language because when students experienced complex and unfamiliar concepts, they tended to keep silent or hardly express their ideas in a flexible way. Another clear example of topic avoidance was observed and found among Indonesian students who kept quiet when an instructor asked them the questions (Bahrani et al., 2020). They were afraid to make mistakes, and they did not know the expressions to give opinions or respond to another's questions.

Several researchers have investigated students' use of CSs and found possible factors (e.g., task types and language proficiency) affecting the selection of CSs. Patil and Karekatti (2015) explored the communication strategies used by engineering students in chosen oral communicative situations. The results illustrated that the participants used more CSs in the interview task than in presentation and public speaking. The most often employed strategies in all speaking tasks are fillers, repetition, and restructuring. Also, Hardianti (2018) explored CSs of an Indonesian speaker and found that various strategies were employed such as fillers, self-repetition, self-repair, and comprehension check. Likewise, Uztosun and Erten (2014) investigated the frequent use of CSs by Turkish EFL students. The results revealed that fillers were the most often used strategy; however, the speakers applied this strategy to gain time in conversations; it is not because of lacking communicative competence. In addition, the study

found that low proficiency groups significantly employed message reduction and topic avoidance strategies while high proficiency groups significantly use mime.

Other studies have focused on the relationship between language proficiency and CSs. Mei and Nathalang (2010) examined CSs used by non-English major students in China using a questionnaire and semi-structured interview to collect data. The participants were grouped into high and low proficiency levels. The findings indicate that high proficiency learners used restructuring (by giving examples), approximation, and clarification requests more commonly than low proficiency learners. In contrast, low proficiency learners employed literal translation and language switch more than high proficiency learners.

Some previous CSs studies in Thailand also focus on language proficiency and the frequency of use of CSs. Metcalfe and Noom-Ura (2013) investigated the types of CSs used by high and low proficiency groups among 104 Thai first-year university students. The findings showed that high proficiency groups tended to apply achievement strategies when facing communication problems, while low proficiency groups tend to avoid language difficulties through reduction strategies. Furthermore, Wannaruk (2003) revealed that high proficiency participants were more likely to employ circumlocution and approximation than low proficiency participants who seemed to apply more avoidance strategies, language switching, and gestures.

Nonetheless, some research found no relationship between CSs use and language proficiency. Huang (2010) examined the factors influencing the CSs of Taiwanese university students. The results showed that English proficiency did not cause any effect on the use of CSs. Instead, it was found that motivation and the frequency of speaking English outside the classroom had a significant impact on the use of CSs. Taupan (2019) also indicated that anxiety could be one of the factors affecting CSs use; to improve students' efficacy in communication, decreasing their anxiety by extracurricular activities with role-playing is also recommended. These findings were consistent with Graham (1997), who indicated that the important factors influencing CSs involved reducing anxiety and enlarging participation to speak in a target language.

According to the empirical studies above, it can be deduced that learners' use of CSs vary depending on many factors. In the present study, differences of CSs may be used by students with varying levels of foreign language anxiety.

## **Methodology**

This study adopted a mixed-methods design. In the first phase of the study, the modified 5-point, 31-item Foreign Language Classroom Anxiety Scale (FLCAS) was administered to answer question 1. In the second phase of the study, the participants' video-recordings during the discussion task were collected to answer question 2.

### *Context of the study*

The study was conducted in one of the most reputable engineering varsity in Thailand. The participants in the study were enrolled in a foundation English course. The course aims to develop students' effective and natural communication skills in social and academic settings, promote integrated skills with primary emphasis on listening and speaking skills, and improve communication management and language learning strategies to become effective communicators. The teaching topics are related to everyday life, such as getting to know, growing up, interests, and directions to support students applying what they have learned to communicate with others both inside and outside the classrooms. Since this course focuses on communication, students must demonstrate their speaking skills through a group discussion task at the end of the term.

### *Background of the participants*

All participants were first-year engineering students enrolled in a regular engineering program at the undergraduate level. In this program, courses are taught in Thai. In the first semester, students are required to take a compulsory English foundation communication course. Most of the students are at CEFR's A1 level or beginner. At this level, they are expected to talk about daily life topics but would encounter communication breakdowns due to insufficient linguistic knowledge.

### *Survey questionnaire and participants*

In the first phase of the study, the modified FLCAS proposed by Paranuwat (2011) was used as it is applicable in the Thai context. In the revised questionnaire, seven items were removed, and five items were added, including item 10 "*I feel worried about differences between what I have prepared for a test and the test,*" item 16 "*I feel worried over learning English,*" item 26 "*I feel overwhelmed by the numbers of pronunciation rules I have to learn to speak English,*"

item 29 “*I’m often afraid that my English score will be less than what I expect,*” and item 30 “*I feel overwhelmed by the numbers of words I have to learn to speak in English.*”

The survey questionnaire is a 5-point Likert scale (5 - strongly agree, 4 - agree, 3 - neither agree nor disagree, 2 - disagree, 1 - strongly disagree), and a 31-item foreign language classroom anxiety scale. Paranuwat (2011) adapted the questionnaire from the Foreign Language Classroom Anxiety Scale (FLCAS) proposed by Horwitz et al. (1986), Aida (1994), and Liu and Jackson (2008). The items measured six dimensions of foreign language classroom anxiety: communication apprehension, fear of negative evaluation, test anxiety, fear of being less competent than others, negative attitudes towards language class, and beliefs about language learning. The questionnaire was translated from English to Thai to avoid misunderstanding and testing fatigue.

Using convenience sampling, 119 first-year engineering students enrolled in an English foundation course voluntarily accomplished the paper-based survey questionnaire. Of the total participants, 60% ( $n=71$ ) were moderately anxious, 37% ( $n=44$ ) were highly apprehensive, and only 4% ( $n=4$ ) experienced low anxiety.

#### *Group discussion task and participants*

In the second phase of the study, data from a group discussion task was used to ascertain the CSs used by the students. A group discussion task is created to assess students’ English-speaking skills at the end of the course. This assessment is conducted by the teacher during class time. The teacher randomly put students in groups of four and then inform the students of the group they belong to around 7-10 minutes before they perform their speaking test. The two topics students have to select randomly are life at university and my neighborhood. The speaking duration is 7 minutes. Students are not allowed to look at any scripts while performing the group discussion task. In the group discussion task, only 7 groups consisting of 27 students consented to have their videos taken (see Table 1).

Table 1. Participants and their level of anxiety

<b>Group</b>	<b>Pseudonym</b>	<b>M, SD</b>	<b>Level of agreement</b>
1	Ava	3.32, 0.03	Moderate
	Irene	3.81, 0.03	High
	Zoey	3.90, 0.05	High
	Grace	3.52, 0.04	High
2	Duke	2.94, 0.04	Moderate
	Elle	3.23, 0.02	Moderate
	Leo	4.32, 0.03	High
	Lana	3.13, 0.03	Moderate

3	Oscar	2.74, 0.03	Moderate
	Nadia	3.71, 0.05	High
	Kylie	3.55, 0.03	High
	Ethan	3.10, 0.05	Moderate
4	Andrew	2.90, 0.04	Moderate
	Angelo	4.03, 0.03	High
	Mason	3.77, 0.03	High
5	Mia	3.13, 0.02	Moderate
	Chloe	3.65, 0.03	High
	Violet	2.06, 0.04	Low
	Olivia	3.71, 0.04	High
6	Max	3.10, 0.04	Moderate
	Jolie	3.26, 0.02	Moderate
	Lucy	3.58, 0.02	High
	Damon	3.16, 0.03	Moderate
7	Riley	3.77, 0.04	High
	Taylor	2.94, 0.03	Moderate
	Kate	3.48, 0.04	Moderate
	Asher	3.13, 0.03	Moderate

To attain the highest score in the discussion task, a discussant must speak fluently and intelligibly with good communication strategies and without reading a script. On the other hand, the lowest score is given to a student who spoke English with minimal fluency, poor pronunciation, and grammar with little communication strategies and a script. Although the topic of discussion is selected, students were informed of the topics before the speaking test.

### ***Data collection procedures***

In the first phase of the study, the researchers initially used a survey to investigate the foreign language anxiety experienced by Engineering students. The data collection was implemented during the English for Communication 1 class, one week before the group discussion task. Every student was informed about the research purpose, research procedures, and consent form. If students decided not to take part or to withdraw, it would not affect their English class grade. In the group discussion task, 33 groups were created, but only seven groups of 4 discussants (n=28) volunteered and consented to video record their discussions to ascertain students' communication strategies. The data collection process in the group discussion task was carried out as follows.

1. The researcher randomly put students in groups of four and informed them that they belonged to around 7-10 minutes before performing the group discussion task.
2. Students randomly chose two discussion topics: life at university or my neighborhood.
3. After students selected a discussion topic, they had 7 minutes to prepare the discussion with their group members.

4. When preparing time was over, students were asked to perform group discussion in 7 minutes.
5. During the discussion, video recording was used to record students' utterances. The researcher later transcribed the recording data to be analyzed.

### **Data analysis**

Descriptive statistics was used to analyze the quantitative data from FLCAS. The mean frequency of students' anxiety levels was categorized into three groups: high, moderate, and low anxiety. The mean score from 1.00 to 2.49 was defined as 'low anxiety', from 2.50 to 3.49 as 'moderate anxiety,' and from 3.50 to 5.00 as 'high anxiety.' To specify the causes of foreign language learning anxiety, each questionnaire item's score was calculated for mean and standard deviation (SD) and interpreted similarly to the above categories.

The qualitative data was analyzed by deductive coding. The data gathered from the video recording was transcribed. The qualitative data was coded deductively using Celce-Murcia's CSs framework (see Table 2). The interrater agreement was 92 percent.

Table 2: Celce-Murcia's framework and example statements

<b>Types of communication strategies</b>	<b>Subtypes of communication strategies</b>	<b>Example statements</b>
Avoidance or Reduction Strategy	Message abandonment	Grace (H): Do you like your roommate? Irene (H): Yes. I like because she.um.lovely and kind.. What about you? Zoey (H): Yes. I like she. She.err.friendly. <i>Sometime.....um..she..um.....(pause 5s).....sorry, and you?</i>
Achievement or Compensatory Strategy	Approximation	Irene (H): I don't like um <i>chemical</i> because difficult. ...
	All-purpose words	Angelo (H): I like eat <i>rice fried</i> ...And you? Ethan (M): I like to go to shopping. I want to go buy shirt to buy shirt and <i>anything</i> . And you?
	Word-coinage	Irene (H): Um... How how do you go to the university? Zoey (H): Um. I get to by bus. Sometimes....um...bicycle <i>private</i> .
	Code-switching	Ava (M): Err. I like she. <i>Bangkrung</i> (Thai language) Sorry.err.sometime she is annoys but I think she is so cute.
	Retrieval	Lana (M): I live in Pak Chong at Nakhon Ratchasima province. ... Where ...where do you like to go in your <i>neigh neighborhood</i> ?
Stalling or Time Gaining Strategy	Fillers, hesitation devices and gambits	Mia (M): I I don't like chemistry because it's it's hard for me. Violet (L): <i>By the way</i> , what's your name? ..... Damon (M): <i>Ahh</i> I don't have major. <i>Actually</i> , I want to study computer engineering too.
	Self and other-repetition	Lana (M): Yes. <i>My my</i> brother <i>like like</i> ah to go...there. How about you?
Self-Monitoring Strategy	Self-initiated repair	Grace (H): Where do you like to have lunch? <i>I means</i> err the restaurant. ..... Ava (M): I meet my friends and we <i>went to go</i> the library err to read a book.....(pause 5s).....Do you enjoy study at university.

Interactional strategy	Self-rephrasing	Ava (M): I live in Suranivate 16. I think it's private. <b>What major. What is your major?</b> ..... Mason (H): Ahh my my faculty is engineering and ... ahh I will <b>do choose</b> my my major ah engineer.
	Meaning negotiation strategies	Ethan (M): Which paint is popular paint in your neighborhood? Kylie (H): <b>Excuse me? Again please?</b> Ethan (M): Which is poplar paint in your neighborhood? Kylie (H): ... Ethan (M): Paint Kylie (H): <b>Paint?</b> Nadia (H): <b>Place?</b> Kylie (H): Oh. Yes. <b>Err place?</b> Ethan (M): Paint pen it's pen is dog cat.
	Pauses	Kylie (H): Um what place do you do you like to go ahh neighborhood? Ethan (M): I like go to umm..... <b>(pause 10s)</b> ..... umm Big C. ..... Angelo (H): I like to..I like to ah...calculus because ..... <b>(pause 5s)</b> ..... because ..... <b>(pause 7s)</b> ..... challenging. And you?

### Findings and discussion

To answer the first question, first-year Engineering students had a moderate anxiety level ( $M=3.31$ ,  $SD=0.03$ ) in the English class. Further findings show that their anxiety is highly provoked when they have to speak without preparation in English language class (see Table 3). In the Thai context, 15 high anxiety situations were found among engineering students. Five items were found under test anxiety, including item 29 'afraid of lesser score than expectation,' item 21 'feeling anxious even with enough preparation,' item 8 'worry about failure,' item 14 'nervous during the test,' and item 10 'worried about what is prepared and the test,' Another five anxiety-

Table 3: Foreign language anxiety

Items	Statements	M	SD	Level of anxiety
18	I start to panic when I have to speak without preparation in my English language class.	4.24	0.79	High
29	I'm often afraid that my English score will be less than what I expect.	4.04	0.96	High
4	I feel very self-conscious about speaking the English language in front of other students.	3.99	0.87	High
21	Even if I am well-prepared for the English language test, I feel anxious about it.	3.94	0.99	High
17	I always feel that the other students speak English better than I do.	3.93	0.91	High
1	I never feel quite sure of myself when I am speaking in my English language class.	3.92	0.83	High
15	I can feel my heart pounding when I'm going to be called on in English class.	3.92	0.98	High
27	I get nervous when the English teacher asks questions that I haven't prepared in advance.	3.87	0.87	High
6	I keep thinking that other students are better at the English language than me.	3.84	1.00	High
8	I worry about the consequences of failing in my English language class.	3.84	1.13	High

23	I get nervous when I am speaking English in class.	3.75	0.94	High
14	I usually get nervous during English tests in my class.	3.73	0.92	High
10	I feel worried about the differences between what I have prepared for a test and the test.	3.65	1.03	High
25	I feel pressure to prepare very well for the English class.	3.65	0.94	High
26	I feel overwhelmed by the number of pronunciation rules I have to learn to speak English.	3.56	1.09	High
16	I feel worried about learning English.	3.49	1.06	Moderate
13	I don't feel confident when I speak in English language class.	3.48	0.94	Moderate
2	I tremble when I know that I'm going to be called on in English language class.	3.38	1.03	Moderate
3	It frightens me when I don't understand what the teacher is saying in English language class.	3.38	1.03	Moderate
31	It bothers me at all to take more English classes.	3.36	1.12	Moderate
28	I feel unhappy when I'm on my way to English class.	3.34	0.90	Moderate
30	I feel overwhelmed by the number of words I have to learn to speak in English.	3.31	1.18	Moderate
9	It embarrasses me to volunteer answers in my English language class.	3.29	0.95	Moderate
22	I don't feel comfortable around speakers of English.	3.24	0.80	Moderate
20	I am afraid that the other students will laugh at me when I speak English.	3.20	1.14	Moderate
24	I get nervous when I don't understand every word the English teacher says.	3.18	1.08	Moderate
7	I feel overwhelmed by the number of rules I have to learn to speak English.	2.94	1.14	Moderate
19	I feel more tense and nervous in my English class than in my other classes.	2.93	1.22	Moderate
11	The more I study for the English language test, the more confused I get	2.89	1.10	Moderate
12	I feel like not going to my English class	2.81	1.00	Moderate
5	The English language class moves so quickly that I am worried about getting left behind.	2.45	1.08	Low

provoking situations were linked with fear of negative evaluation, including item 17 *'others are better in speaking than me,'* item 27 *'teacher asks questions,'* item 6 *'thinking that others are better than me,'* item 15 *'pounding heart when their names are called,'* and item 25 *'pressured to prepare very well in class.'* Four anxiety-provoking situations were associated with communication apprehension such as item 18 *'start to panic without preparation,'* item 4 *'conscious when speaking in front of other students,'* item 1 *'unsure of themselves when speaking English in class,'* and item 23 *'nervous and confused when speaking English in class.'* One item was found under beliefs about language learning, for instance, item 26 *'feel overwhelmed with the number of pronunciation rules.'* The least anxiety-provoking situation was item 5 *'worried about getting left behind.'*

Table 4: Subtypes of communication strategies used by students with varying levels of anxiety

Group	Levels of anxiety	Topic avoidance	Message abandonment	Approximation	All-purpose words	Restructuring	Word-coinage	Code-switching	Retrieval	Fillers, hesitation devices and gambits	Self and other-repetition	Self-initiated repair	Self-rephrasing	Meaning negotiation strategies	Pauses
1	Moderate(n=1)			√				√		√	√	√	√		√
	High(n=3)		√	√	√		√		√	√	√	√		√	√
2	Moderate(n=3)		√	√	√			√	√	√	√	√	√		√
	High(n=1)									√	√	√	√		√
3	Moderate(n=2)				√					√	√	√			√
	High(n=2)		√					√		√	√	√		√	√
4	Moderate(n=2)							√		√	√	√			
	High(n=2)		√	√					√	√	√	√	√	√	√
5	Low(n=1)									√	√				√
	Moderate(n=1)									√	√	√			√
	High(n=2)				√					√	√	√			√
6	Moderate(n=3)		√	√					√	√	√	√		√	√
	High(n=4)									√	√	√		√	
7	Moderate(n=3)			√			√		√	√	√		√		√
	High(n=1)			√						√			√		

Concerning the differences of CSs used by the students, moderate and high anxious students used all CSs to accomplish the speaking task (see Table 4). Only two subtypes of CSs were used for students with low anxiety, including fillers, hesitation devices and gambits, self and other repetition, and pauses. As compared with moderate and high anxious students, low anxious students may have the linguistic resources or knowledge about the expected outcomes of the task because they opted *not* to use other CSs such as word coinage, code-switching, approximation, among others. Such use of CSs may result in a lower performance score as stipulated in the task's criteria.

All groups of students had the highest frequency on fillers, hesitations, and gambits, followed by self and other repetition (see Table 5). Some examples of fillers used were 'uh,' 'um,' 'actually,' 'again please,' and 'like.'

Table 5: Percentage of communication strategies used in a group discussion task

Levels of anxiety	Message abandonment	Approximation	All-purpose words	Word-coinage	Code-switching	Retrieval	Fillers, hesitation devices and gambits	Self and other-repetition	Self-initiated repair	Self-rephrasing	Meaning negotiation strategies	Pauses
Low							64	25				1
Moderate	1	2	1	1	1	4	63	15	4	3	1	4
High	3	2	1	1	1	1	54	17	6	3	5	6

This study aimed to examine first-year engineering students' anxiety and the use of communication strategies in a group discussion task.

Similar to Parauwat's (2011) study among Thai university students, moderate anxiety was found among the sample population in the current study. The highest anxiety-provoking situation was related to test anxiety, which is '*speaking without preparation.*' The nature of the course, which aims for communicative competence and requires spoken productive output, could be associated with this anxiety-provoking situation. Although the survey questionnaire was given before the discussion task, the idea of randomly selecting the participants may have had already provoked the students' anxiety. Hence, there is a need to reconsider the random selection of topics or participants to let students feel at ease when speaking. As Quinto and Macayan (2019) noted, high level of anxiety resulted in lower scores.

Regarding the factors of anxiety-provoking situations, the present findings corroborated Parauwat's study that 'fear of being less competent than others' is a valid factor for Thai students. In the Thai context, students get nervous '*when others are better at speaking than me*' and feeling uneasy for thinking that '*others are better than me.*' This is closely associated with fear of negative evaluation factor, which is prevalent among Filipino engineering students (see Quinto & Macayan, 2011). In Asia, saving face is a cultural norm.

Concerning the use of CSs, all types were used by the students. Furthermore, about specific CSs, the use of fillers, hesitation, and gambits had the highest frequency of use among all three groups of anxious students. Although we cannot statistically establish the relationship between the two constructs, the use of '*uhs*' and '*ums*' can be associated with heightened anxiety (Garcia, 2016). While the use of fillers may be a good strategy to gain more time to think (see Uztosun & Erten, 2014), its high frequency of use is alarming. Previous studies claimed that

the overuse of filler words negatively impacts the speaker's credibility and, to some extent, it hinders the comprehensibility of the speaker (see Duvall et al., 2014; Ya-ni, 2017). Moreover, highly anxious students who use filler words may have difficulty getting a *good* score in the speaking task as it affects their fluency. Future research may explore the bidirectional relationships among task's goal, anxiety, and CSs using real-time anxiety measures in various in-class speaking activities.

### *Implications for testing*

Similar to previous studies, test anxiety seemed to be prevalent among students in the university setting. Coupled with other anxiety factors such as fear of negative evaluation and fear of being less competent with others, students' speaking performance or output may be dismal. Group speaking tests, for example, a discussion task, could be less anxiety-provoking when students have the chance to select the group members. When students feel *at ease* with their group members, they may reduce their fear of negative evaluation and fear of being less competent with others. Furthermore, teachers may consider giving separate scores for the group (e.g., turn-taking) and individual performances (e.g., fluency).

### **Conclusion**

Although many studies were devoted to anxiety and communication strategies separately, the investigation of the two constructs appears to be an area of interest that needs exploring in group speaking tasks.

In the present study, findings have shown a moderate anxiety level among first-year engineering students in the Thai university context. Those students with moderate and high anxiety levels used varying types of communication strategies as compared to low anxious students who utilized stalling or time-gaining strategies. Across all groups of anxious students, fillers, hesitation devices, and gambits were widely used in a group discussion task.

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## Teaching 21<sup>st</sup> Century Skills in a Bichronous Learning Environment

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### **Abstract**

To cope with the recent pandemic, universities and higher educational institutions have invested in shifting their classroom-based offered courses to synchronous or asynchronous classes in support of the continuation of education during Covid-19. A new era of blending both synchronous and asynchronous offered classes has emerged to provide more flexible and independent learning. This has been introduced as an inclusion of synchronous learning elements supported by asynchronous course material under the new term of bichronous learning. As the pedagogical learning paradigms are shifting with online learning, a shift in students' mastery of the 21<sup>st</sup> century skills is witnessed. This paper investigates students' reflections of how the shift to bichronous learning has affected their acquisition of 21<sup>st</sup> century skills. After being introduced to the 21<sup>st</sup> century skills, 74 students were asked anonymously to answer a reflective open-ended question about the skills they attained during bichronous learning. These reported skills were then categorised under the three essential domains of the 21<sup>st</sup> century skills; the Learning and Innovation Skills domain, the Career and Life Skills domain, and the Digital Literacy Skills domain. Examples from students' input were analysed with reference to the literature to report on best practices of teaching the 21<sup>st</sup> century skills in

a bichronous learning environment. The results indicate that there is an increase in the acquisition of the 21<sup>st</sup> century skills under the Career and Life Skills domain.

## 1. Introduction

Universities, schools, and educational institutions around the world are facing an unprecedented challenge of schools' closure due to the recent pandemic of COVID-19. In support of UNESCO's recommendations for the continuation of education, educational institutions invested in shifting their classroom-based offered courses to online classes to ensure the delivery of curriculum-based learning to all students (UNESCO, 2020). Although online learning had been researched briefly before the current pandemic, little research investigated the effectiveness of this medium of delivery as a substitute to actual classroom learning. Equity and inclusion became two key concerns with the shift to online learning and various levels of the technological readiness of the students. This has led educational institutions to blend different technological mediums of delivery to ensure equity (UNESCO, 2020). While recent literature is investigating the limitations of online learning and questioning the effectiveness of it, some literature is suggesting that this pandemic could have disrupted an educational system that has been losing its reliability in equipping students with the essential 21<sup>st</sup> century skills (Li & Lalani, 2020). There is evidence that higher education institutions are struggling to prepare learners for future jobs (Linh, 2019). It is suggested that in online learning, teachers act as facilitators who make suitable content available for the students, which gives the students flexibility and easier access to the content and creates a more learner-centred learning experience (McKimm et al, 2003). There is evidence in the literature that online learning also promotes skills like self-discipline, self-motivation and autonomy (eg. Ozek et al., 2009; Ming, 2010). Nimasari et al. (2019) conducted a study which concluded that online learning develops responsibility and self-regulation in learners. These skills go hand in hand with the suggested 21<sup>st</sup> century skills in the Trilling's and Fadel's (2009) 21<sup>st</sup> century skills domains. Hence, it is predicted that distance learning can develop students' acquisition of 21<sup>st</sup> century skills.

### Research questions

1. According to students' reflections, under which domain of the 21<sup>st</sup> century essential skills do the most acquired skills fall?
2. What is the most frequent acquired skill according to students' reflections?

## **2. Background**

The term distance learning is usually used interchangeably with online learning and distance education (UNESCO, 2020). According to the literature, online learning is defined as using the internet, or technology, to access the learning content (Ally, 2002). The author argues that the goal of online learning is “to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience” (Ally, 2002, pp. 7). Due to the current situation of teacher-learner separation by space, there is evidence in the literature that online learning enables communication and exchange of content and information to aid the process of learning regardless of this separation (UNESCO, 2020). However, online learning should integrate more than just the presentation of learning materials using the available online platforms, and its focus should be tailored around the learners and the learning process (Ally, 2004). In line with UNESCO’s recommendations of examining the readiness and choosing technological solutions that are context sensitive and most relevant, some educational institutions relied on a blend of different technology-based mediums of delivery (UNESCO, 2020). A new era of blending synchronous and asynchronous online learning has emerged under the term bichronous learning.

### **2. 1. Bichronous Online Learning**

According to the Sloan Consortium (2011), courses taught at educational institutions can be categorised into four types; 1) traditional, where 0 percent of the course is delivered online, 2) web-facilitated, where web-enhanced technology is used to deliver 1 to 29 percent of the content, 3) blended or hybrid courses, where 30 to 79 percent of the content is delivered online, and the rest is delivered in a face-to-face traditional setting, 4) online courses, where 80 to 100 percent of the content is delivered online (Allen & Seaman, 2011). Due to the recent pandemic of Covid-19, most educational institutions turned to blended and online courses depending on the number of active cases of people infected with the recent virus Covid-19 in that region. A new era of blending different technology-based learning has emerged in support of the continuation of education and as a substitute to face-to-face learning (UNESCO, 2020).

Other classifications of online learning included Asynchronous Online Learning, and Synchronous Online Learning. Asynchronous Online Learning is defined in the literature as a course where there are no online real time meetings and where all the content is delivered online, which students can engage with at any time and from anywhere (Martin & Oyarzun, 2017). The advantages of 100 percent Asynchronous Online Learning as a medium of delivery

include; learners' ability to learn at their own pace, and there is no scheduling conflict. However, limitations of such learning can include delayed time, lack of immediate feedback, and low level of participation (Martin et al., 2020).

On the other hand, Synchronous Online Learning is defined as a course in which all content is delivered online and students can engage with it from anywhere. However, there are real time meetings which students have to engage with at the same time (Martin & Oyarzun, 2017). The advantages of 100 percent Synchronous Online Learning as a medium of delivery include; the availability of immediate feedback, enhanced audio-visual interaction and communication, accountability, and opportunities for the learners to stay motivated and structure their time. However, limitations of such learning can include having discussions that are too fast for the learners, conflicts in scheduling, possible technical issues, and dependency on availability of access to internet and technology devices (Martin & Oyarzun, 2017).

Recent research suggests that by blending synchronous and asynchronous learning, Bichronous Online Learning reduces the limitations of the asynchronous learning such as the lack of interaction and audio-visual communication opportunities (Martin et al., 2020). The term Bichronous Online Learning is defined as the blending of both synchronous and asynchronous online learning forms, so that students can engage with the content from anywhere and at any time, but also engage in the synchronous sessions in real time learning (Martin et al., 2020). In a bichronous online learning environment, students can have the opportunities of both learning at their own pace, getting immediate feedback and interaction, and communicating in an enhanced audio-visual online learning environment. However, there could be some conflict in scheduling and unexpected technical issues. In those situations, the content in a bichronous learning is still made available for the students to access at their own pace.

## **2. 2. The New Learning Paradigm**

It is now well established that in order to be effective teachers, our students need to be equipped with skills beyond the traditional core subject skills, such as reading and writing, in order to enable them to be successful and productive citizens of the Digital Economy (Trilling & Fadel, 2009). The Partnership for 21<sup>st</sup> Century Skills (P21) envisions being “a catalyst to infuse 21<sup>st</sup> century skills throughout primary and secondary schools by building collaborative partnerships among education, business, community and government leaders” (P21, 2008, pp. 4). There is evidence in the literature that the overall aim of the P21 is to unite the educational vision of preparing our students for college, career and life (NEA, 2014). The

P21 designed the Framework for 21<sup>st</sup> Century Learning (P21, 2011) which presents skills and knowledge that are essentials for skills to master in order to be well prepared and successful in the Digital Economy. With the shift to online and distance learning around the globe, these skills are more than ever seen as vital. These 21<sup>st</sup> century skills are clearly presented and synthesized in Kivunja's (2014) formulation of The New Learning Paradigm.

$$JR\ 21CS = f(TCS + LIS + CLS + DLS).$$

Where:

JR21CS= Job Readiness with 21st Century Skills

f = is a function of

TCS = Traditional Core Skills e.g. reading, -riting and -rithmetic or basic literacy and numeracy;

LIS = Learning and Innovation Skills; e.g. critical thinking, problem solving and creativity;

CLS = Career and Life Skills; e.g. flexibility, adaptability, initiative, teamwork and leadership;

DLS = Digital Literacy Skills; e.g. technological proficiency, digital fluency, computing, media and information literacy.

*Figure 1. The New Learning Paradigm*

According to the Framework for 21<sup>st</sup> Century Learning (P21, 2011), and as illustrated in Kivunja's (2014) formulation, to have a generation that is job ready and equipped with 21<sup>st</sup> century skills, acquired skills should consist of the domain of Traditional Core Subjects Skills supported by the three essential 21<sup>st</sup> century skills domains; the Learning and Innovation Skills domain, the Career and Life Skills domain, and the Digital Literacy Skills domain.

According to the P21 framework (2014), the Traditional Core Subject Skills domain includes English, Mathematics, Arts, Geography, Science, and Civics. Trilling and Fadel (2009) propose that the Core Subjects Skills domain include reading, writing and numeracy; content needed to be educated. The Learning and Innovation Skills domain is described in the literature as the "skills increasingly being recognised as those that separate students who are prepared for a more and more complex life and work environment in the 21<sup>st</sup> century, and those who are not" (P21, 2009, pp. 3). These skills are referred to as the 4Cs of the Learning and Innovation domains; critical thinking and problem solving, communication, collaboration, and creativity and innovation (Kivunja, 2014). The Career and Life Skills domain includes teamwork, social and cross-cultural skills, initiative and self-direction, leadership and responsibility, flexibility and adaptability, self-reliance, productivity and accountability (Trilling & Fadel, 2009). The importance of the Digital Literacy Skills domain, or the

Information, Media, and Technology domain, is highly emphasized on in the literature as “achieving education’s goals in our times is shaped by the increasingly powerful technologies we have for communication, collaborating, and learning. And learning assumes a central role throughout life” (Trilling & Fadel, 2009, pp. 16). According to the later authors, the Digital Literacy Skills domain includes computing literacy, information literacy, ICT literacy, and media literacy (Trilling & Fadel, 2009). The table below is a summary adapted from the discussed literature to highlight the key skills under each domain.

*Table 1. Summary of 21<sup>st</sup> Century Skills adapted from (Trilling & Fadel, 2009; Kivunja, 2014; P21, 2011)*

Key Domain	Essential 21 <sup>st</sup> Century Skills
Core Subjects and Skills domain	<ul style="list-style-type: none"> <li>• Reading</li> <li>• Writing</li> <li>• Numeracy</li> <li>• Content needed to be educated (e.g. Mathematics, Arts, Science, Geography ... etc)</li> </ul>
Learning and Innovation Skills Domain	<ul style="list-style-type: none"> <li>• Critical thinking and problem solving</li> <li>• Collaboration</li> <li>• Communication</li> <li>• Creativity and Innovation</li> </ul>
Career and Life Skills domain	<ul style="list-style-type: none"> <li>• Teamwork</li> <li>• Leadership and responsibility</li> <li>• Initiative and self-direction</li> <li>• Flexibility and adaptability</li> <li>• Social and cross-cultural interaction</li> <li>• Self-reliance, productivity and accountability</li> </ul>
Digital Literacy Skills domain	<ul style="list-style-type: none"> <li>• Computing literacy</li> <li>• Information literacy</li> <li>• ICT literacy</li> <li>• Media literacy</li> </ul>

## 2. 3. Teaching the Essential 21<sup>st</sup> Century Skills

In his book, *21 Lessons for the 21<sup>st</sup> Century*, Harari (2018) argues that schools and educational institutions still continue to concentrate on teaching the traditional skills, rather than focusing on the vital skills for success such as problem solving and flexibility skills. However, recent literature proposes that with the shift to online learning, educators are planning to make use of e-learning as the ‘new normal’ after witnessing its advantages (Li & Lalani, 2020). Hence, there are predictions that a bichronous online learning environment could present the ideal learning environment for teaching the 21<sup>st</sup> century skills.

### 2. 3. 1. *Teaching Learning and Innovation Skills*

There is emphasis in the literature on the importance of the teaching of the 4Cs under the Learning and Innovation Skills; critical thinking and problem solving, communication, collaboration, and creativity and innovation. The skill of critical thinking was defined as the capability of knowing proof from opinion, seeing holes in an argument, identifying illogical facts and judging evidence, and determining cause and effect (Dobozy et al., 2012). According to Halpren (2003), an understanding based on personal opinions and common sense is merely not critical thinking. Critical thinking involves the recognition of empirical evidence to support what is being observed, then evaluating the available data and creating a knowledgeable way of knowing. This is the process that students need to go through in order to develop their critical thinking skills. To effectively teach critical thinking and problem-solving skills, Kivunja (2014) argues that students need to invest concerted effort in collecting information and knowledge, to stay concentrated, to recognize various alternatives and to determine the alternatives, take a position that can be supported with reasonable arguments, seek clarity in the argument, carry out analyses in a logical and orderly way, and listen sensitively and attentively to others’ opinions. The author also emphasises that students need to learn critical thinking skills to develop their metacognition. This will enable them to question observations or ideas about their own thinking consciously (Kivunja, 2014). Students are supposed to be encouraged to look for information gaps and ways to fill them, and learn how to differentiate between simple observations and conclusions, and between fact and estimation or fiction (Kivunja, 2014).

Trilling and Fadel (2009) debate that a new demand for communication skills was created due to the diffusion of the global Digital Economy. The Partnership for 21<sup>st</sup> Century Skills (2009) proposes five sets of communication skills. These sets include the ability to express, orally and nonverbally, ideas and thoughts efficiently, the ability to make sense of

what is said when listening, the ability to make use of communication effectively, the ability to take advantage of the extensive available media and technologies, and the ability to communicate effectively in various environments (P21, 2009). There is evidence in the literature that “communication skills have always been valued in the workplace and in public life. But in the 21st century, these skills have been transformed and are even more important today” (P21, 2014, pp. 13). Trilling and Fadhel (2009) suggest that to effectively teach communication skills, the five sets proposed by the P21 need to be considered. First, students need to learn how to express their thoughts and ideas, verbally and nonverbally, and how to write using different forms in order to communicate effectively in different contexts. Second, students need to learn how to listen actively. This includes understanding what is being said while bearing in mind the speakers’ attitudes, values and cultural background. Third, students need to learn how to communicate for different purposes. For example, they need to differentiate between communicating to inform customers and persuading potential clients. Fourth, students need to learn how to employ various technologies and the wide range of media. This should include evaluating the effectiveness of the available and used media and technologies. Fifth, students need to learn how to communicate in different environments, including the use of different languages other than their native tongue. Due to the fact that a bichronous learning environment allows opportunities for audio-visual communication, it is predicted that it can enhance the development of communication skills in students. There is evidence in the literature that a synchronous online learning environment can be more effective than a face-to-face traditional setting in developing communication skills (Foronda et al., 2014). According to the authors, the students reported that synchronous online learning gives them more opportunities to communicate rather than in the classroom where no one talks to the other (Foronda et al., 2014).

According to P21 (2014), the main drivers of the global economy are creativity and innovation. Although, in the past, innovation and creativity were not always recognized as main drivers for the rise of the economy and industry. Innovation, as IBSA (2009) defines, is to add social or economic value to new uses of ideas while consciously exploiting new ones. Trilling and Fadel (2009, pp. 56) argue that “many believe that our current Knowledge Age is quickly giving way to an Innovation Age.” Pink (2006) alluded that people who are creators and empathizers, pattern recognizers and meaning makers with different kind of minds, are what the future longs for. Innovation and creativity could be taught by creating quality learning environments that allow students to solve genuinely realistic issues and encourage them to be open-minded (Anderson et al., 2001). The IBSA propose that using methods such as

brainstorming, mind mapping, visual creativity, word association, SWOT analysis, and lateral thinking can help students extend their imagination and develop innovative ideas (IBSA, 2009). This goes hand in hand with Kivunja's (2014) suggestions that these methods will help learners learn how to open their minds to new and unknown ideas. The author emphasizes that a part of a successful and creative process is mistakes and failure (Kivunja, 2014).

### 2. 3. 2. *Teaching Career and Life Skills*

According to P21(2009) students are required to gain more skills than basic thinking and content awareness, due to the complexity and competitiveness of both life and work environments in the 21<sup>st</sup> century digital age. There are five skills that need to be taught meritoriously to students for the purpose of successful digital economy performance; flexibility and adaptability skills, initiative and self-direction skills, social and cross-cultural skills, productivity and accountability skills, and leadership and responsibility skills (Kivunja, 2015)

There is evidence and emphasis in the literature that the key to preparing students with the 21<sup>st</sup> century skills is to ensure that flexibility and adaptability skills are well taught (Kivunja, 2015). Numbers of approaches define ways of how a student can use flexibility and adaptability at work, post-graduation (Kivunja, 2015). One of them is the ability of a student to value feedback and to have a positive attitude towards it. This strategy is supported by many researchers in the field of teaching career and life skills domain (e.g. O'Connor & McDermott, 1997; Senge, 1999; Askew, 2000).

For example, O'Connor and McDermott (1997) argue that feedback can be represented in the form of loops, in which the consequences of the actions done by the students can influence their next actions. Hence, feedback can be seen as an informative process guiding the students towards achieving their next goal (O'Connor & McDermott, 1997). The literature suggests that there are two good ways to teach students flexibility and adaptability. First, students need to learn how to use feedback to reinforce the task they are working on to find better ways to accomplish the tasks in order to improve their productivity. This has been proposed in the literature as the Reinforcing Feedback Loop (O'Connor & McDermott, 1997). Second, the authors (1997) propose the Balancing Feedback Loop, in which students learn how to be flexible and adaptive as they spot their mistakes and where they are wrong and work on correcting them and getting it right.

Various strategies are discussed by Career and Life Skills domain experts (e.g. Hargreaves et al., 2000; Angelo & Cross, 1993; Black & Wiliam, 1998), who can guide teachers toward better ways to teach students feedback appreciation and the productive use of

it. These strategies include; 1) determining how formal, generic and summative your feedback will be, 2) ensuring that the feedback is a continuous instructional process, which allows students to monitor their progress, take more responsibility for their learning and think of ways to improve their performance, 3) using verbal and non-verbal expression to evaluate students' performance such as nodding or in writing, 4) informing students about whether or not the objective is achieved and the proper way to correct what is wrong, 5) suggesting ways to enhance students' performance by leaving comments, 6) identifying the common mistakes in students' work and addressing the different ways to avoid them, 7) giving students examples of good answers and explaining the given criteria thoroughly and then reporting on them with reference to the student's work. Commenting on the success of students, Black and Wiliam (1998) provide an example of how praise should be used carefully when giving feedback. It is proposed in the literature that there is influence on attitude and performance if the comment focuses on the self-esteem dimensions of the student, advising to comment on the student's performance rather than the student. In a bichronous learning environment, sometimes in the real-time meetings the feedback is immediate, and sometimes where students are learning at their own pace, the feedback is delayed. This can create the ideal learning environment to integrate different types of feedback suggested in the literature, and the delayed time might help students reflect on the feedback and use it as reinforcement to their next task to be achieved.

According to the Framework for 21<sup>st</sup> century Skills Learning (P21, 2011), there are three main strategies that students need to master in order to be equipped with the essential initiative and self-direction skills (Kivunja, 2014). These skills are; managing goals and time, working independently, and being a self-directed learner. It has been demonstrated in the literature that in order to teach students how to manage goals and time, students need to learn certain steps (Drucker, 1955). These steps can help students in learning the approach to setting targets, which can easily be remembered by the acronym SMART (Kivunja, 2015). The acronym stands for Specific, Measurable, Achievable, Realistic, and Timely. Students need to be instructed to achieve realistic and attainable objectives and that comes after accurately identifying them. They also need to identify goals that they can measure. Students must also be able to achieve the goals within the time limit. This creates pressure for the students to push their limits and complete their job within the required time frame (Kivunja, 2015).

At the 21<sup>st</sup> century's workplace, working independently is highly valued as it allows the employee to handle problems without depending on other workers or supervisors. Kivunja (2015) argues that as the Information Economy expands on change, workers cannot be tolerated

to wait for a higher levelled employee to instruct them on the proper way to respond to the changing conditions. Thus, employees are expected to take initiatives and create their independent response, to be able to adapt whenever the conditions at the workplace change or shift. Therefore, acting or working independently demonstrates the self-motivation of an employee, which makes it a required beneficial quality in the workplace in the 21<sup>st</sup> century (Kivunja, 2015). Students also need to learn how to determine the best way to react to any change as it occurs (Kivunja, 2015). Teachers should also guide their students to be flexible and attentive to any change that occurs under minimum to no supervision from the teacher (Kivunja, 2015). As the change occurs, students must be induced to have responsibility to adapt to the situation and track and assess their own progress. In doing so, students should be encouraged by their teachers to provide suggestions and recommendation about what they think should be accomplished separately, and to explain why their ideas are good for the completion of the task, rather than waiting for teachers to guide them on what to do (Kivunja, 2015).

P21 (2009) indicates that in the 21<sup>st</sup> century workplace, managers and supervisors who are self-directed learners will continue to play an important role in achieving, counselling, and scaffolding their employees. Thus, workers with initiative and self-direction skills are highly valued as they play an important role in building company's growth structures (P21, 2009). There is evidence in the literature that "self-directed learners go beyond mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise. Demonstrate initiative to advance skill levels towards a professional level" (P21, 2009, pp. 6). Students must experience taking initiatives to develop their self-esteem and to be more aware of their own potentials, which will be achieved by being motivated, persistent, and resilient. That will prepare them to accept the possibility of failing and will also encourage them to work hard in order to meet their efficiency and productivity targets (Kivunja, 2015). Students should also be aware that failing is not a discouraging factor, knowing that mistakes are critical components of self-directing learning. As Bloom (1956) proposes, students need to be given opportunities to use their cognitive process and higher-order thinking skills rather than being inactive in the learning process.

Recent literature reports that distance learning tends to require a high level of self-directed learning on the part of the learner, and study skills, which must be supported through new teaching, learning and guidance strategies (UNESCO, 2020). Hence, in a bichronous learning environment, teachers are encouraged to motivate students to work independently. Kivunja (2015) argues that this can be achieved by guiding the students in prioritising the tasks they have to accomplish without seeking help on how to proceed with the given tasks.

### 2. 3. 3. *Teaching Digital Literacy Skills*

Rapid change in communication and information technologies outside the classroom is advancing because of globalisation and technological change (Kivunja, 2014). There is evidence in the literature that in order to succeed professionally in this globalised 21<sup>st</sup> digital century, it is vital that we enrich our pedagogy and curricula with digital technologies (Kivunja, 2014). The author also suggests that “the demand for labour in the 21<sup>st</sup> century economies is for people whose skills are well grounded in technological knowledge, skills and creativity” (Kivunja, 2013, pp. 140). However, to align our pedagogy with the new paradigm shift, Trilling and Fadel (2009) propose that students need to be taught how to “use technology as a tool to research, organize, evaluate and communicate information; and create information in order to successfully function in a knowledge economy” (Trilling & Fadel, 2009, pp. 71). The authors also propose that in order to equip students with digital literacy skills, students need to be taught how to access and assess information, how to manage the flow of information, and how to use information accurately (Trilling & Fadel, 2009). In a recent study that compares online learning to classroom-setting learning, only 36% of the students reported that they felt anxious about learning online because they are not confident enough about the competence of their computing skills (Cedar, 2013). While the majority in the study were comfortable and ‘technologically ready’, there is still a small percentage of students who need some guidance with using technology. Therefore, it is suggested that in a bichronous learning environment, students should also be guided on how to use technology to access the content of the course and engage with it.

### 3. Method

Students in the foundation level enrolled in a university in Bahrain and immersed in a bichronous learning environment, a blend of a synchronous and asynchronous online learning, were introduced to the 21<sup>st</sup> century skills in the form of an online synchronous workshop. Anonymously, 74 students were asked to answer a reflective open-ended question about the skills they attained during their experience of receiving bichronous learning, and provide examples as proof for the learned 21<sup>st</sup> century skills. Students' reflections were analysed against the three essential domains of the 21<sup>st</sup> century skills; the Learning and Innovation Skills domain (LIS), the Career and Life Skills domain (CLS), and the Digital Literacy Skills domain (DLS) (Trilling and Fadel, 2009). Since the literature agrees that the traditional core subjects skills are “well known in pedagogy” (Kivunja, 2014, pp. 41), this study examines only the acquired skills in the other three essential skills domains. Examples from students' reflections were derived

to inform about best practices of teaching the 21<sup>st</sup> century essential skills during online learning in relation to the discussion in the literature. This will shed light on the possibility of transferring the available lines of suggestions in the literature about best pedagogies of the 21<sup>st</sup> century skills in the phase of distance learning and online learning. The skills most frequently mentioned in the reflections are highlighted to predict the effectiveness of online learning in teaching which of the 21<sup>st</sup> century skills.

#### 4. Results and Discussions

According to students' reflections, Figure 2 demonstrates the number of total acquired skills according to each domain. It is apparent from the figure that students enrolled in a bichronous learning environment agree that distance learning is foremostly helping them acquire skills under the Career and Life Skills domain such as teamwork and flexibility skills. This result is somewhat counterintuitive. There was an assumption that since students are going to be employing recent technology in their learning, a bichronous learning environment would fundamentally equip students with skills under the Digital Literacy Skills domain. Nevertheless, these findings go hand in hand with the suggestions in the literature that powerful technology is already available today, and we only need to use it to upskill learners with critical thinking, problem solving, and flexibility skills in order to prepare them for success in their career (Kivunja, 2014).

With a difference of almost 20 points, the Digital Literacy Skills domain comes in the second place of the domain of most acquired skills according to students' reflection as presented in Figure 2. These findings suggest that a bichronous learning environment was successful in equipping students with Digital Literacy Skills. The importance of skills under the later domain are emphasised on with several lines of evidence in the literature. Trilling and Fadel argue that "achieving education's goals in our times is shaped by the increasingly powerful technologies we have for communicating, collaborating, and learning" (Trilling & Fadel, 2009, pp. 16). Despite the fact that the literature reported the lack of digital literacy skills in some learners in an online learning environment (Cedar, 2013), it is evident from the results of this study that a bichronous learning environment can equip the students with digital literacy skills.

Taking the last place of the least acquired skills, through employing the Digital Literacy Skills, students have reported that they have acquired sufficient skills under the Learning and Innovation Skills domain with a difference of only 4 points.

Figure 3 demonstrates the frequency of each of skill under the three-essential domains. From the chart, it can be seen that by far the greatest frequency is for the skill of teamwork under the domain Career and Life Skill. Surprisingly, even though students were restricted from seeing each other physically, somehow the bichronous learning environment represented the ideal setting for the students to cooperate and develop their teamwork skills. This is clearly represented in one of the students' reflections "Online learning helped me to build a strong teamwork spirit with my classmates due to the online self-study group we made". There are some lines of evidence in the literature that disagree with this finding (e.g., Peterson, 2018). However, the study reported that this is due to students' perception towards online learning. It can be concluded that when students were presented with a bichronous learning experience as an only choice of medium of delivery, their perception was positive, and therefore bichronous leaning helped them in developing their collaboration skills.

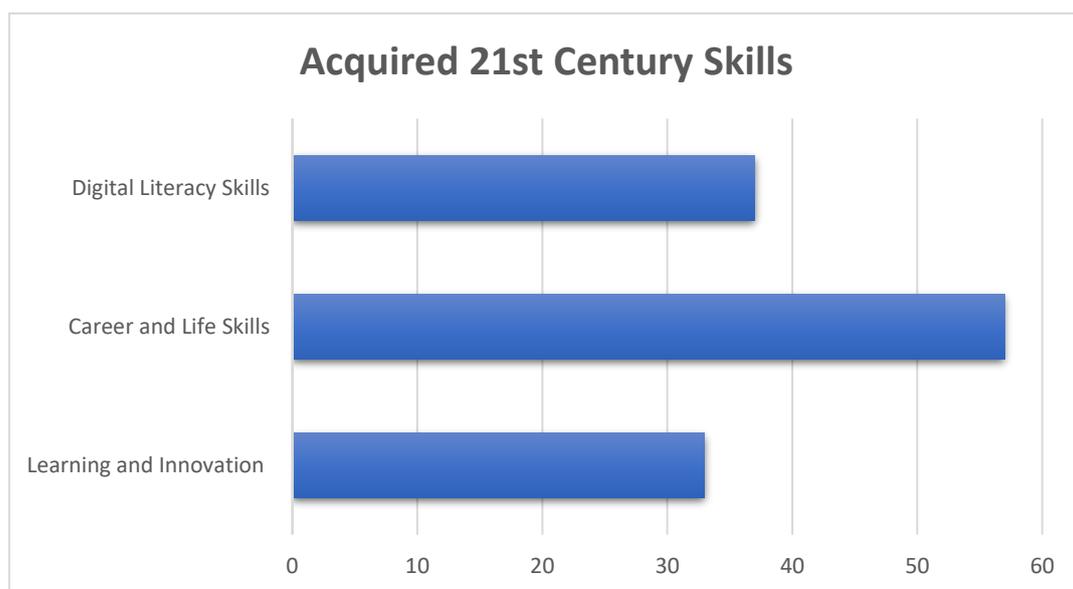


Figure 2. The medium of the total acquired skills according to each domain

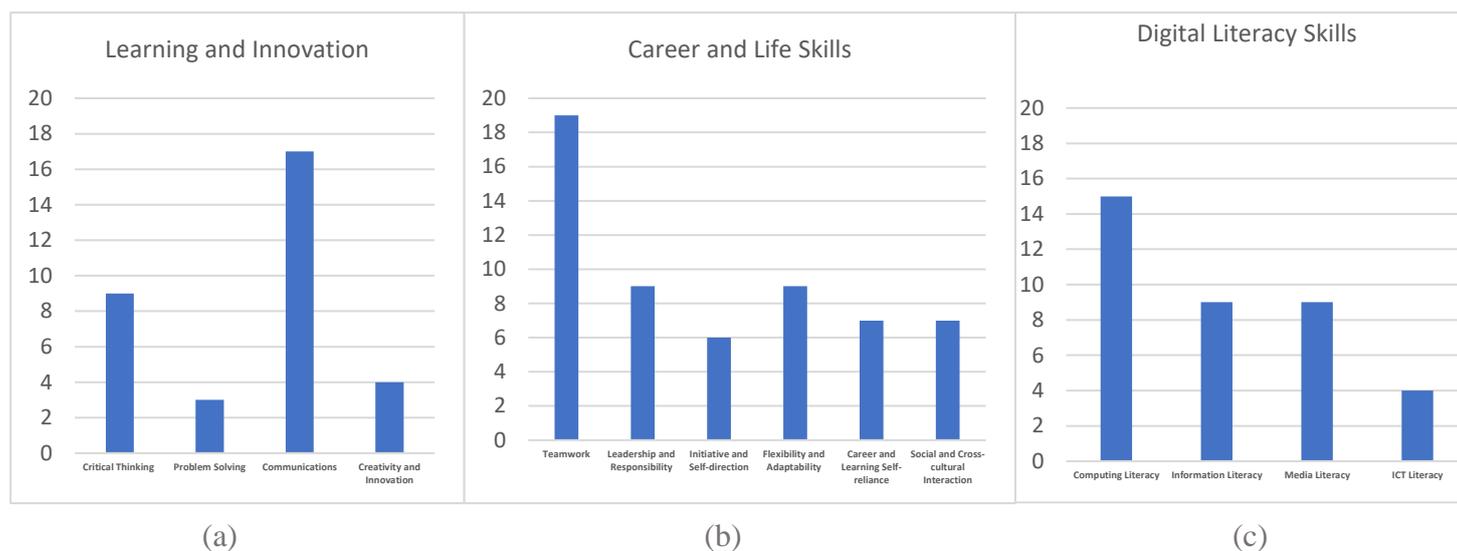


Figure 3. Frequency of each of the acquired skills under the three-essential domains

The second most frequent skill is the communication skills. When classes were shifted to online classes, there were some doubts that online classes could hinder the development of language and communication skills. However, it is evident that bichronous online learning can aid the development of communication skills. This can be easily seen in one of the students' reflections that "virtual learning has helped me in developing my communication skills by interacting with my classmates and teachers, and helping each other through the difficulties even though we have never met before". From the students' reflections, it can be witnessed that there is a strong relationship between developing communication skills and teamwork spirit. Trilling and Fadhel (2009) have categorised the skills of collaboration and teamwork under the domain Career and Life Skills, and the skill of communication under the domain of Learning and Innovation Skills. On the other hand, the Framework for 21<sup>st</sup> Century Skills (P21, 2011) proposes that the collaboration and communication go under the 4Cs in the domain of Learning and Innovation Skills. From the results of this research, the later categorisation of skills is seen as more accurate, since all students linked the two skills in their reflections and emphasised on their combined importance. Other lines of evidence by Trilling and Fadhel emphasise on this strong link that "achieving education's goals in our times is shaped by the increasingly powerful technologies we have for communicating, collaborating, and learning" (2009, pp. 16).

There were some expectations that since classes are delivered using a medium of technology, then the most acquired skills would be technology related. However, computing literacy skill came in the third place of the most acquired skills in a bichronous learning

environment. There are two proposed explanations of why it did not take the first place. First, it is predicted that the 21<sup>st</sup> century students are “Digital Natives” who are already equipped with the capabilities of employing technology. This goes hand in hand with Kivunja’s findings that “when students were given the opportunity to apply digital technologies in their learning and professional practice, they took initiative to extend their understanding of issues and concepts in a digitally connectivist mode” (2013, pp. 139). Second, it is suggested that even though students acquired more skills under the domain of Digital Literacy Skills, they valued the other acquired skills to reflect on, simply because they just were waiting for the opportunity to employ technology in their learning.

One of the highest acquired skills is also the skill of critical thinking. The students somehow referred in their reflections to it constantly in relation to the problem solving skill. Despite Trilling and Fadhel (2009) proposing them as separate skills, the P21 (2011) have reported that they are linked under one of the 4Cs mentioned in the discussion of literature. The students reported that since bichronous online learning has some challenges, they were facing problems related to their learning, but those problems did not seem unsolvable as they developed their critical thinking skills and were able to solve them in the end.

A lot of students reported that bichronous learning helped them in setting goals for their learning, and most importantly, how to be flexible in learning. A student reported in his reflection that:

“The most important thing that I learned is how to be flexible when it comes to learning and how to solve problems efficiently. For example, sometimes at my house the Internet doesn’t work properly, but that doesn’t affect me at all as I would still be able to watch the recorded lessons and discuss with my classmates the things I find difficult.”

According to a student’s reflection, a bichronous learning environment helped them in developing their initiative skills through taking the initiative of creating tutorial videos on how to access the used platforms for the students who are struggling with digital literacy skills. This reflection is seen as very important because it represents how a bichronous learning environment creates the ideal situation of equipping students with some of the essential 21<sup>st</sup> century skills with little to no interface from the teacher. First, it developed initiative and leadership skills in the students who created these videos, or study groups as mentioned before. Second, it developed critical thinking and problem-solving skills, as well as teamwork skills, as the student worked together towards finding solutions of the problems they were facing with

technology. Third, the bichronous learning environment has also developed the self-directed spirit in students, where the learners adapt to change without referring to the superior. This has been strongly emphasised in the literature as one of the essential needed skill in the 21<sup>st</sup> century workplace (Kivunja, 2014). Fourth, from this example, it can be witnessed that students struggling with technology were guided by their classmates to achieve competence in using technology in their learning journey, and equity in the continuation of the learning is ensured despite the different level of technological readiness in the students.

## **5. Conclusions**

It is evident from the results of this study that a bichronous learning environment can represent an ideal learning setting which can aid the acquisition of the essential 21<sup>st</sup> century skills, and more precisely, the Career and Life Skills domain. The results indicate the most acquired skills are communication, teamwork and computing literacy skills. This study was limited to the small number of participants, and the absence of a control group in a face-to-face traditional setting, which was difficult to implement in a time of a global pandemic. Future research can investigate the extent of acquired 21<sup>st</sup> century skills in a bichronous learning environment in comparison to traditional face-to-face classroom learning. Students' perception towards the effectiveness of both types of learning should be investigated as well, to see the effect of the pandemic on their readiness to adapt to online learning post-Covid-19.

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## **Enhancing Employability through Student Empowerment in the Light of Economical Challenges**

**Dr. Bassam Alhamad**

### **Bio-profile:**

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### **Abstract**

Student *empowerment* is an essential ingredient for higher employability opportunities. Different universities in Bahrain had different approaches in enhancing employability. Such approaches include process, procedures, policies, partnerships, however few of those universities follow a framework approach. Frameworks, that are based on international good practices, integrate both academic and life skills that to enhance the employability skills. The purpose of this paper is to show the approach implemented in University of Bahrain, and its comparison with international best practices and 21<sup>st</sup> Century Skills. For example, the earlier framework in 2013 developed at University of Bahrain relies on curricular and extracurricular

activities. It was based on two main streams, 1) academic-oriented, represented in the University Intended Learning Outcomes through program curriculum, Program Intended Learning Outcomes, Direct and Indirect assessment, etc. and 2) life skills – oriented, represented in the student council, student societies and clubs, and career counseling activities as well as support programs such as peer teaching, student part-time employment, debate programs, forums and conferences, international competitions, etc. The framework was enhanced extensively to include the requirements from the market, which was mainly to reflect real life experiences in the academic program. The framework also considered those students who are at risk in their journey of learning at the university, supported with proper advising, counseling and language clinic centers. The framework also considers honor students, who either are academically distinguished to be supported with additional short courses that enhance their capabilities and competencies; or the talented students who could have innovative ideas or applied projects that are discovered through senior projects or through social activities, where they are provided with business incubators. The framework integrates the inputs from the stakeholders, including the student, alumni, faculty, specialized staff members and employers. That integrated framework is implemented through a) stated goals and objectives, b) systems, policies and procedures, c) defined and recognized bodies, structure with clear job descriptions and responsibilities, and d) measures and indicators of success, with follow-up and achievement plans. The employability framework at UOB had been upgraded to shift to a student's centered approach. This is referred to as student's empowerment employability framework. The results showed that work-based learning and career counseling are key factors towards improvement. The results also showed that UOB has challenges in enhancing work-based learning capabilities, real-life experiences, networking, advising and career counseling facilities. There are many additional elements that are not practiced by UOB, which include career pathway progression through professional development activities, micro-credentials, professional monitoring, internships or apprenticeships.

## **Introduction**

Employability has a dynamic definition and it is a university-wide responsibility, (Tymon 2011). In Bologna Declaration 1999 it was referred to as “Citizen Employability”, (Ježek, Neusar et al. 2012). In Prague Communiqué 2001 it was called as “Graduate Employability”, (Bologna 2001). Employability is a lifelong process, applies to all students whatever their situation, course, or mode of study. It is about supporting students to develop a range of

knowledge, skills and competencies which will enable them to be successful not just in employment but in life.

Graduate Employability means that higher education alumni have developed the capacity to obtain and/or create work, (Kinash and Crane 2015). Employability also means that institutions and employers have supported the student knowledge, skills, attributes, reflective disposition, and identity that graduates need to succeed in the workforce, (Ježek, Neusar et al. 2012). Employability does not replace academic rigor and standards. It is not about adding additional units into the curriculum. It is not just about preparing students for employment.

There is a difference between employability and employment. Employability is not just about getting a job. The focus is more than just to 'employ' and more on 'ability'. Employability is about knowledge and developing critical thinking skills, resilience, transferrable skills, and subject-specific skills. These skills are stated in a standard course syllabus obliged to be mandatory on all universities. This ensures coverage of all required skills. Employment is defined at many accreditation bodies as the number of students finding a job within six months. This was therefore used as the definition for employment at University of Bahrain.

Employability is looked at writing CV, application letters and knowing where to submit their application forms. This understanding is the just one part of empowering the students. There are much more dimensions that will be covered in this paper.

Due to the rapid change nature of the market, the programs/qualifications should be proactive rather than becoming reactive. This is not to mention that there are many universities that do not even react to the changes within the market. 77% of CEOs find it difficult to get the creativity and innovation skills they need. are looking for a broader range of skills than previously, (PWC 2017). Students and universities are hence facing a more difficult and dynamic labour market than before. Employability skills is now a must. The National Qualifications Framework (NQF) in Bahrain identifies the skills to progress from one qualification to another, (Al-Sindi and Jaffar 2018). With the connection to the Ministry of Labour, the skills are linked to employability. The NQF consists of 10 levels. Each of the NQF Levels is defined by a level descriptor. The descriptors are categorized into: 3 strands and 5 sub-strands The NQF supports mobility and internationalization, which enhances employability, (Tamaro 2006, Al-Sindi and Jaffar 2018). The overall message is that there employability is enhanced if stronger ties and connections are built between education systems and the skills required for today's and tomorrow's careers.

Education systems are now under unprecedented pressures meet the demands of the 4th industrial revolution (PWC 2017), due to knowledge creation through the breakthrough technology such as AI, Cloud, IOT, 3d printing, robotics, etc.

### **Theoretical Background**

There are many challenges that face employment. These are related to all stakeholders such as students, alumni, and employers, (Wellman 2010, Bridgstock 2011, Fatima Warraich and Ameen 2011, Avramenko 2012, Galloway, Marks et al. 2014, Donald, Baruch et al. 2019). The mismatch of skills is one the main reasons that graduates do not find a place in the market. Many of the employment skills that are related to so called non-academic skills are not taught in universities, (Bridgstock 2011, Fatima Warraich and Ameen 2011, Pitan 2017, Russell and Rowlett 2019). These employment skills are sometimes referred to as 21<sup>st</sup> Century Skills by many authors, as stated by the World Economic Forum. The 21<sup>st</sup> century skills included personal effectiveness competencies, academic competencies, workplace competencies, management competencies, industrial and occupational competencies. These studies reflected the importance of aligning the curriculum to the market and industry. In fact, it reflected the importance of the performance outcomes, which means that the students should practice the real application performance within their academic life, which could be inside or outside the university.

The common goals for Higher Education Institutes (HEIs) are to graduate students with certain degrees to the market. As simple as it sounds, there are lot of details in the type of graduate, and if they fit the market or not? The Higher Education Council (HEC) in Bahrain strategy (2014-2024) stated within its strategy the skills for future employments, (HEC 2014). The Higher Education Council (HEC) in Bahrain published a study on “Industry and Employer Graduate Skills Requirement” in 2015, (HEC 2015). The report covered the key employment sectors and provided a guide to the students and the universities with the type of employments and the level of demand of these employments up to 2022. There had been no further studies updating the employment type and demand. The Key Areas of Focus was the following:

- Aligning curricula with Employers’ Needs versus Employer Engagement
- More diverse workforce versus Tiering for alignment
- Developing the workforce through experience and training versus Program Alignment
- Providing information about careers versus Career Guidance

- Encouraging a culture of employment, innovation, and entrepreneurship versus Workforce Readiness / 21st Century Skills

The Global Competitiveness reports by the World Economic Forum, reflect an additional dimension related to the distribution of the workforce according to the country. This means that the 21<sup>st</sup> century skills could vary in its importance from the developing countries to the developed countries.

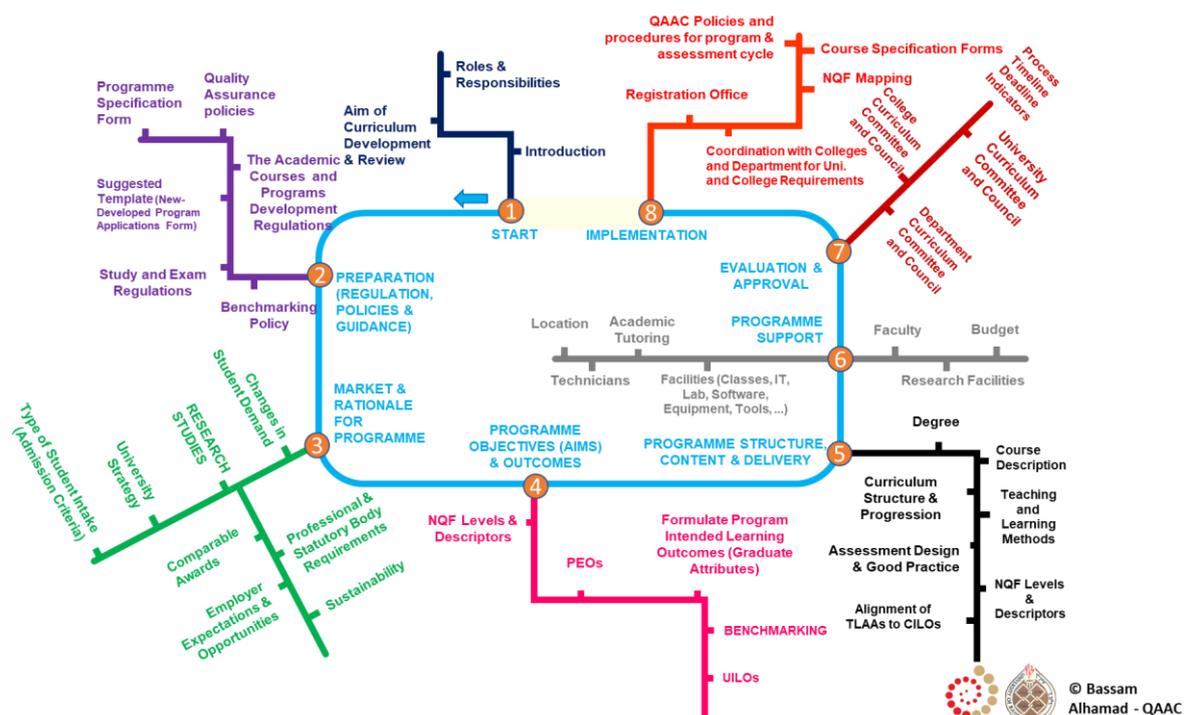
Many studies showed that higher education institutions that shifted their programs towards work-based learning strategies had positive impacts in enhancing employability skills, (Toledano-O’Farrill 2017, Bramford and Eason 2020, Konstantinou and Miller 2020). Others use internships, which is a shorter version of work-based learning strategy. Internships provides readiness for career-readiness, (Galloway, Marks et al. 2014, Bilsland, Carter et al. 2019). Incorporating stakeholders’ perceptions into education increases the level of hands-on experience. Stakeholder’s incorporation includes contribution of parents, alumni, and employers, (European-Higher-Education-Area 28-29 April 2011, Amaral and Magalhães 2002, Balbachevsky 2015, Marshall 2018, Bilsland, Carter et al. 2019). However, it is found that internship, apprenticeships, training programs had been used interchangeably with no consideration to the differences between all work-based learning strategies, (Byrom and Aiken 2014, Ghirelli, Havari et al. 2019). Apprenticeships had been mentioned in literature to a key factor for employment, as it provides networking, hand-on experience, and practice on real-life applications. However, apprenticeships are complex procedures that may incorporate government inputs to enforce policies for governmental support, (DIUS/DCSF 2008, Frenette 2015, Irons 2017, Venkatraman, de Souza-Daw et al. 2018, Ghirelli, Havari et al. 2019).

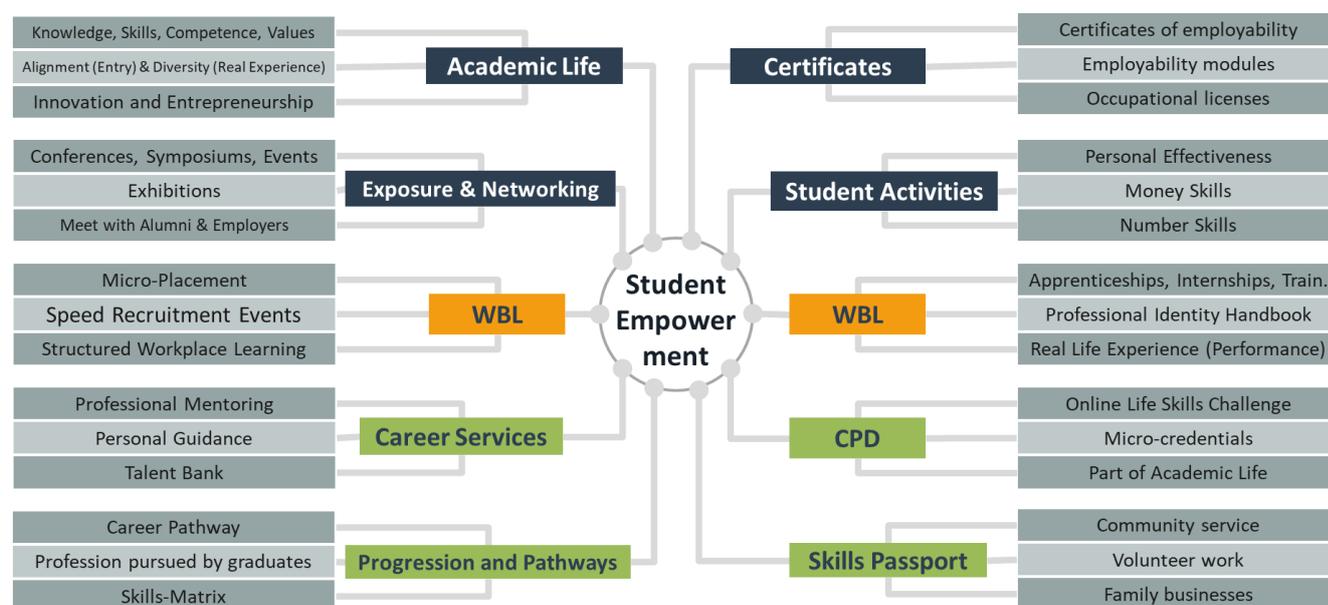
(Chen 2018) performed an importance performance analysis (IPA) to the most important factors towards better employment and found that career planning and professional knowledge were considered of less importance than other factors, that included professional attitude, specialized skills, and hands-on experience. On the other hand, there had been many studies emphasizing on the importance of career counseling or career advice to students, (Rae 2007, Baruch, Bhaskar et al. 2019, Pepper and McGrath 2019, Okolie, Nwajiuba et al. 2020). It should be noted that there are major differences to the methodology of counseling between the universities. There are practices which integrate career counseling with enterprises, (Rae 2007). Other practices include career counseling with specific mentoring programs, (Okolie, Nwajiuba et al. 2020). Alignment with market needs is a key factor stated by (Zhiwen and van der Heijden 2008).

Student Empowerment to improve employment opportunities had been recently tackled, (Li-Hua, Wilson et al. 2011, Byrom and Aiken 2014, Grima-Farrell 2015, Menon and Suresh 2020). Students could be empowered through entrepreneurship opportunities (Jiwei Shi and Sewell 2011, Li-Hua, Wilson et al. 2011, Jenny Shi, Chen et al. 2012), networking with key alumni and employers (Jauhari 2013, Spence and Hyams-Ssekasi 2015, Batistic and Tymon 2017), mentoring pathways (Grima-Farrell 2015), students' centered curriculum (Orletta Nguyen 2014), and work-based learning, (Collinson, Diver et al. 2018).

## Methodology

A framework (Figure 1) is developed by the University of Bahrain to test its performance for employability. The first framework concentrated on what the university should do and prepare for the students to enhance their skills. This was tested through continuous assessment of the skills. It was also followed up through internal reviews and employability audits. The updated framework (Figure 2) was student centered and ensured that the tools empower the students with full capabilities rather than relying on the university for employment. The updated framework (Figure 2) was based on the items that had been stated in the literature review. In addition, meetings with focus groups of alumni and employers revealed a group of additional elements that would enhance the level of employability. The following framework is obtained. Interviews with key officials and the senior exit survey are used to analyze against the Student's Empowerment Employability Framework.



**Figure 1: Curriculum Development Framework****Figure 2: Student Empowerment Employability Framework**

## Discussion and Analysis

Students are empowered through exposure and networking. Students are provided with varying implementations between colleges on the following initiatives:

- Meet with Alumni, Employers through advisory committees, professional societies (students' society, employers' society)
- Short to Long structures workplace learning
- Conferences, Symposiums, Exhibitions
- Mock Interviews, Career Day, HR Day
- Initial Contacts, Follow-ups, Social Media (Linkedin)

There are programs that support employability opportunities through the attendance of various workshops related to transferrable skills. The University runs the program with INJAZ, which is a non-profit organization with the aim of empowering students with all required skills. On the other hand, there are professional certificates or occupational licenses related to the occupation or the specialization, which are updated based on the obtained information from the Labor Market Regulatory Authority (LRMA). These are provided to students in several colleges, such as College of IT, College of Applied Studies, College of Health Sciences. There had been practices on granting certificates of employability in Australia, provided by Technical and Further Education (TAFE). Other good practices in several universities in UK included

employability modules that could be attended by students to enhance their skills, (Carroll, Marchington et al. 1999).

Regarding work-based learning, there are good practices that include apprenticeships, internships, training programs. Employer Groups develop a training program / skills matrix that support the work-based learning experience, (Griggs, Scandone et al. October, 2018). For example, in UK, detailed tasks were stated by Barclays, stating all required skills for employment. Other practices included speed recruitment events (Carroll, Marchington et al. 1999), which is usually referred to as the career/hunting day. In Germany, the approach of having structured workplace learning, that is, student should have the work life experience before graduation. In Australia, they developed the so called “Skills Passport”. The students are made aware of these skills in school and develop their skills passport through their academic and professional career. Other ways of work-based learning experiences are to allow students to undergo a micro-placement experience in one of the organisations for three to five weeks of exploration. This event is usually conducted out of the curriculum. Professional Monitoring is a program developed in Australia, where students are allowed to undergo 6 months of hands-on experience. This opportunity is provided for Year 2 students. An employability Toolkit is developed for students which includes a bundle of activities that includes lecture delivery, one to one consultation and a group of workshops for Year 1 & 2 students. In Australia, students who are disengaged, which means that the final year students do not succeed to get engaged in any employment within their final year. These students are supported with additional services by the university to get them engaged to be employed. Such services would include alignment of the obtained certificate to the right profession, additional training workshops, and more exposure using the data bank of possible placements.

On comparison to Bahrain Polytechnic University (another public university), it emphasises on Work Integrated Learning (WIL) as a key curriculum element in preparing students for the world of work. This approach is a personalized experience for the student – each student is assessed against 8 key skills clusters and benchmarked against industry requirements. This happens from the start so there is 3-4 years to work with the student and build up their skills rather than wait until the final year. Professional qualifications are embedding within teaching and learning to give students certificates with currency. Staff had varying understandings and experience of Problem Based Learning (PBL) and this quickly proved to be a major factor in the slow progress towards PBL implementation. Furthermore, not all staff were convinced that PBL was a better approach. Another factor was the multiplicity of competing projects that staff

were involved. The PBL are well-designed related to work problems to stimulate learning, and to ensure that students develop technical knowledge and skills, as well as employability skills. Work Integrated Learning include directed or supported educational activities that integrate theoretical learning with its application in the workplace (industry projects, work experience, simulations).

The employability skills, which are put into skills clusters include the following competencies for work effectiveness: teamwork, problem solving, communication, initiative & enterprise, planning & organisation, self-management, learning & technology

The Employability Skills Framework identifies 8 skills clusters, each of which is made up of several facets. It encapsulates a set of generic skills identified as being critical, not only to gaining and maintaining employment, but towards operating effectively in personal and community contexts (life skills) an industry liaison team whose experience and networks have facilitated a lot more consultation with local companies. The result has seen the development of a revised set of terminologies and definitions to make the employability skills more relevant and meaningful to local employers. Student data is used to improve student outcomes which acts as a tool in aligning the students' skills.

At University of Bahrain (UOB), the employability skills had also been identified. The following was one of the studies performed on University of Bahrain as a case study, (Alhamad, AlJawder et al. 2018).

Table 1: Skills comparison on national, regional, and international level

Skills	Tamkeen, Bahrain (Tamkeen 2009)	HEC, Bahrain (HEC 2015)	Bayt.com	OECD, (OECD 2019)
Good communication skills –Arabic and English	✓	✓	✓	✓
Critical thinking		✓		✓
Problem Solving	✓	✓		✓
Using Technology / Digital Application/ ICT skills	✓	✓		
Ability to work under pressure			✓	
Team – working skills	✓	✓	✓	✓

Passionate/ desire to make a difference			✓	
Good leadership skills		✓	✓	
Creativity and innovativeness	✓	✓		✓
Good technical skills	✓	✓	✓	✓
Relevant industry experience			✓	
Ability to take on new challenges			✓	
Assuming Responsibilities				
Good analytical skills		✓	✓	✓
Social skills, emotional skills (Trustworthy/ Honest/Friendliness, respect, self-control, confidence)			✓	✓

The common skills between various studies had been formalized into the so-called University Intended Learning Outcomes (UILOs). These outcomes are defined as the graduate attributes that will ensure employability. The Program Intended Learning Outcomes for every qualification/program are mapped with the UILOs to ensure the effectiveness in developing the employability skills. The University Intended Learning Outcomes (UILOs) define the measurable expectations of student learning (knowledge, skills and competencies) that are demonstrated by graduates from all program levels and all academic disciplines.

- Communication
- Technological Competence
- Critical Thinking and Analysis, Knowledge, and Skills
- Information Literacy and Research Skills
- Responsibility and Integrity
- Life-Long Learning

UOB undergoes internal program reviews and employability audits. The employability audits reflect the performance of the programs in developing the employability skills. The following shows the results of College of Science in 2015.

Table 2: Employability Audit Results against UILOs

	College of Science				
	Chemistry	Biology	Physics	Mathematics	Statistics
Communication – writing (report), oral (presentation), teamwork	Plenty of Assignments, Reports, Presentations,		Limited	No Assignments, Reports, Presentations	
Technological Competence, Basic (Office), Research (Library), Modeling & Simulation (Software), Statistics	Chemdraw taught, but no competency in any computational skills in modeling, simulation, or in-depth statistical techniques	Trained in Basic Software, Python, but are not used in any other course to run experiments, model or simulate.		No software at all	One course only, but never used in application
Critical Thinking Skills, Analyze, Synthesize, Design (Case Studies, Senior or Capstone Projects)	No real life applications, no in-depth analysis, no integration of knowledge and skills to analyse and design	In-depth case studies, projects		No Real Case Studies No capstone projects integrating knowledge and skills	
Information Literacy, Research Skills, Referencing in context and depth (Case Studies, Reports, Projects)	No research skills noticed/ References detached/ Limited, Research is at most course text books, internet pages, limited library journal articles except those guided by instructor	Referencing developed from 1 <sup>st</sup> to 4 <sup>th</sup> year		No research skills noticed/ No projects/ No reports	
Responsibility and Integrity, Ethical Issues, Code of conduct, Plagiarism and Cheating (Case Studies, Training, Reports)	Code of Conduct taught, but no depth in using the code of conduct, reports in ethical issues were copy/paste work from internet with no analysis/ No training program or analysis			No code of conduct is taught or trained at all	
Life-Long Learning, Independence in Learning (Assignments, Projects) Where learning happens (Research), identifying type of information to be learnt (case studies, projects, real applications)	Very limited research/assignment that raises independence No real case studies/projects to identify type of knowledge needed	Real Applications to Bahrain		Very limited research/assignment that raises independence No real case studies/projects to identify type of knowledge needed	

\* Red (not acceptable), Yellow (few problems), Green (Achieved)

Table 1 shows the extent of achievements of employability skills (UILOs). There are issues related to technological competence for all programs. Two of the programs had serious issues of not achieving the UILOs. Even though the senior exit survey results do reflect that about 24 to 33% of the students do have a job opportunity on graduation, it is not evident that students are ready for the market. It is to be noted that UILOs reflect one element of the Student's Empowerment Employability Framework.

UOB runs training programs of 8 weeks for College of Engineering and College of IT. Bahrain Teachers College (BTC) and College of Health and Sport Sciences do have hands-on experience programs for one whole semester. They also include continuous work-based learning experiences in schools and hospitals. Continuous inputs from field supervisors updating the training programs. Most of the programs at Colleges of Law, Business, Arts lack training programs. College of Law consists an “elective” course where students practice hands-on experience in “Human Rights Clinic” Course. These training programs are not internships or apprenticeships.

UOB consists of career counselling programs and activities. This includes CV write-up, mock interviews, career day, etc. However, there are no pathway progression advice. In addition,

there are no professional monitoring, talent banks or employment support for disengaged graduates. Senior Exit Survey results show

UOB does not allow for additional credit for any continuous professional development courses for students. Students may attend, but they are not recorded in their transcript. Besides, students are not allowed to undertake micro-credentials to build towards a degree. In fact, the national regulations do not allow for it. Moreover, there are no certificate programs for students. Students are ignorant about their progression pathways. Technical and Specialized advice and counselling are mainly provided by advisors, however in the senior exit survey results, it shows that advising satisfaction rates are less than 70% for three consecutive years.

The student's activities at UOB supported building up of numeric, personal, and money-related skills. On meeting with the management of Student Affairs, it was noted that more than 70% of the extra-curricular activities had been reduced. This would reflect negatively on the expected developed skills.

One of the key elements stated by OECD are values. This element had been forgotten, as most of the accreditation frameworks concentrate on skills and not on values. Values are also not reflected in the UILOs. Values are however taught in four university requirements courses at UOB covering values at different levels. Formalizing the type of values would enhance the expectations, to be assessed and evaluated.

Students can develop networking through attendance of conferences; however, these seats are very limited to students. On interviewing with the management, they stated that numbers of students limit their attendance to conferences. Most of the students do not get the opportunity to build relationships with alumni and employers. The career day allows for good connections and networking. In fact, UOB has specialized career days related to the program. It also has a special career day for special need students. Connections to industry and research funded projects are limited, which may keep the program out of date, or away from market stakeholders.

It was stated that student's data are important to forecast the future skills in the market. Data on market are also important to forecast the market demand towards the different specializations. As data is not known, nor is it published, this keeps a possible mismatch between supply of graduates and the market demand.

Summarizing, the student empowerment framework shows that there are many areas that UOB should work on to empower the students with the required skills needed to be successful in the market, hence increasing their employability opportunities.

Challenges facing UOB include continuous forecasting and analysing global and national market needs, increase funded scientific research and studies, and innovative curricula covering new fields. Work-based learning activities should be enhanced, as well as the career support and advice.

## **Conclusions**

In conclusion, employability should consider the overall trends in the world, and to consider that the graduates should be global, as well should meet national priorities. There are many elements that should be considered by UOB, based on the Students Empowerment Employability Framework. This includes continuous forecasting and analysing global and national market needs, increase funded scientific research and studies, and innovative curricula covering new fields. Work-based learning activities should be enhanced, as well as the career support and advice. Continuous student data assessment should be evaluated to ensure the development of the employability skills. Career guidance is a journey and not an end activity for final year students. Skills are much more than academic skills. It includes industrial skills, networking, values, and opportunities for hands-on experiences. Progression pathways should be known by students, hence allowing for students' empowerment for future planning. NQF supports progression pathways, however students need to be well of their future pathways. The close connection with industry and employers should be enhanced on university and student's level.

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## **Implementing PBL in the Professional Development of Teachers: A Case Study**

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### **Bio-profile:**

**Dr. Neesha Malik** is a faculty in the department of English Language Education at the Bahrain Teachers College, University of Bahrain. She believes that school improvement, her doctoral research, despite being a highly contextualized process, must be grounded on a learner-driven pedagogy. Her consistent efforts in the teaching of content, pedagogy, and pedagogical content have been to step back as a teacher to step up student role in leading learning. Her presentation documents her journey in experimenting with PBL as a method of instruction that is largely driven by the learner. Her personal interests lie in customizing technology to her classroom and instructional needs apart from her early morning run for relaxation and recreation.

### **Abstract**

To make the mark in the fast-developing global economy, today's generation must analytically work their way out through abstract problems, collaborate in teams, from multiple sources extract relevant and critical information out of that which is fabricated, and propose robust and sustainable solutions to persisting issues. Besides, what appears from across vast varieties of recent literature is that post-pandemic organizational success will rest on workforce diversity, creativity, and flexibility. In education, this mandates a curriculum with a scope for an authentic in-depth inquiry to produce tangible results applicable to life. The current research is a case in implementing Project-Based Learning (PBL) in the professional development course for teachers. While the study explores the teacher readiness in using PBL and provides evidence to support why PBL is an effective method of learning, it is primarily an attempt to design a three-day professional development course to implement PBL, to build dynamic teams to lead

the project work, and estimate the effectiveness of the course. The first day focuses on the introduction to the concept of PBL & tackling misconceptions associated with doing a project and PBL, team building activities since a vibrant and forceful team is a key to successful PBL as teams must amicably work together contributing a variety of expertise in doing their best, and drafting of a driving question which guides the inquiry and makes it meaningful and result oriented. The second day focuses on conceptualizing the entry launch which is used in PBL to creatively introduce the project work based on pre-set subject standards and student outcomes meant to be achieved in teaching that topic, the practical activity of working on the project work in teams, presenting the project to the panel representing a shark tank to win a million-dollar contract on acceptance of the project, and reflecting on the PBL project work. The third day focuses on getting familiar with a project planner and creating a sample project plan for own level and discipline. The current research thus aims to emphasize the urgency in equipping teachers with skills to make them competent to lead the learner-driven 21<sup>st</sup> century pedagogy.

**Keywords:** *school, global citizenship, education quality, empowerment, ECE, authentic, education, pandemic, PBL, professional development, pedagogy, 21<sup>st</sup> century pedagogy*

## **Introduction**

The United Nations General Assembly in 2015 set the Sustainable Development Goals intended to be achieved by the year 2030. These are meant to be achieved by all nations part of the global economy. These goals will be achieved when we prepare our young minds with learning they can use to transform challenges into opportunities. However, the efforts we are making towards this aim became somewhat clear when half the number of learners enrolled world-wide at school and tertiary levels were left with no access to education and with future ‘at risk’ because of the Covid-19 pandemic. Yet the nations or parts of nations that managed to continue with some or the other form of education could probably have seen long back what Riley (2004) saw,

We are currently preparing students for jobs that don’t yet exist, using technologies that haven’t been invented, in order to solve problems, we don’t even know are problems yet.

In 2007, the report of the New Commission on the Skills of the American Workforce documented how the changes in the global economy could impact the American standard of living unless serious efforts were made to revamp the education system,

The best employers the world over will be looking for the most competent, most creative, and most innovative people on the face of the earth and will be willing to pay them the top dollar for their services.

In 2007, to revamp the education system, the framework for 21<sup>st</sup> century learning was launched. This highlighted the student outcomes that education should aim at to make them competitive for the growing job market and facilitate their employability. Having realized that teaching and learning must be different from the world we come from to suit the world our students will lead and shape, reforming school systems to accommodate skills most needed in the 21<sup>st</sup> century should be our paramount and universal educational goal. Project Based Learning (PBL) is one such method of teaching in which children are offered opportunities to practice 21<sup>st</sup> century skills by using an inquiry-based structure set around problems which could be real or hypothetical, but require a systematic approach in resolving them (Hallermann & Larmer, 2011). What makes PBL different from doing a project is: it includes significant content that is founded on the standards of the course intended learning outcomes, it requires deep investigation, it embarks with a driving question that guides the process, it is closely tied to the interest and curiosity of the learner to know more, it gives the learner the choice at every stage, the project work also engages the learner to give and receive feedback on their work, and finally present their work before the real audience. In this process, the teacher works closely with the students as a coach and not as the “deliverer of knowledge” (Hallermann & Larmer, 2011). The review of literature reveals several instances where studies have been conducted to verify student outcomes using PBL and the findings have been in most cases positive. Nurhajati (2018) conducted a study on implementing PBL for seventh grade students in teaching writing and found significant improvement in the ability of students to ‘develop their ideas’ and ‘create good sentences’. Foss, Carney, McDonald, & Rooks (2007) examined the effectiveness of PBL in a short term intensive English program for Japanese university EFL students and found the project-based instruction ‘viable’ and ‘flexible’. Eguchi & Eguchi (2006) implemented PBL for their EFL learners in designing English language magazines. While the project motivated the students, and made the task enjoyable, contrary to the findings of other research, the study failed to conclude any impact of PBL on learning English communicatively. The study concluded the reason for this as over emphasis on the task than on interaction and communication.

Although the essence of PBL can be traced back to Socrates’ self-learning, Dewey’s learning by doing, Vygotsky’s social interaction in learning, and Bruner’s constructivist learning, to be

a skilled project manager requires preparing the teacher with necessary skills and role. Thus, to be a model facilitator the teacher needs to be well trained in this pedagogy. To ignite learner interest, a teacher must know how to conduct the entry launch that hooks the learner interest and curiosity, how to make students draft driving questions that will lead their inquiry, how to create teams to work together, how to plan learning tasks that scaffold the project and provide opportunities to engage in 21<sup>st</sup> century skills, how to plan formative assessments that ensure learning outcomes, how to guide reflection to enable evaluation of student work, and how to facilitate project presentations to an authentic audience. Lee & Blanchard (2019) when examined perceived competence, autonomy, and relatedness in the middle and high school teachers' choice in using PBL found that teachers who taught with PBL had significantly more formal PBL professional development, had higher levels of perceived competence, and greater value for this pedagogy than non-PBL use teachers. Findings of the study concluded the importance of formal PBL professional development to increase teacher intention to implement PBL. The current study is hence a case in proposing necessary professional development of teachers at all levels from the early childhood education (ECE) to the university level in using PBL if we want to make a difference to education from the first quarter of this century.

### **Aim**

To implement project-based learning in professional development course for teachers.

### **Research Questions**

- How to design a plan for PBL in a professional development course for teachers?
- How to engage effective team building strategies in PBL for a professional development course for teachers?
- How to measure the effectiveness of PBL in a professional development course for teachers?

### **Rationale**

As a college of education, Bahrain Teachers College (BTC) takes immense pride in being attentive to the needs of its teacher educators. The college provides opportunities for continuous professional development of its faculty and encourages faculty in improving their skills by engaging with opportunities from the community and other educational institutions. Hence, the current study is an attempt to cascade new knowledge the researcher had acquired at an international workshop on teaching STEAM through PBL in October 2019. Since BTC

offers continuous professional development to in-service teachers from public and private schools across Bahrain, the researcher saw this as an opportunity to implement PBL as a teaching strategy with an objective to make a difference in the learning experience of the in-service teachers. Furthermore, the researcher wanted to creatively exploit the professional development program by designing a three days PBL course plan that engaged in-service teachers into hands on experience with 21<sup>st</sup> century skills critical to job market and employability.

### **Significance**

The study is highly significant as it provided the in-service teachers with a first-hand practical experience with PBL in terms of writing a driving question, suggesting an entry launch, collaborating with their groups to find authentic solutions in proposing creative project design, and later preparing individual project plans suited to the subject and the level they teach at. The program design is also significant as the in-service teachers are made to reflect daily on their learning. These reflections served a bidirectional purpose in making the participants develop a deeper understanding of PBL and its potential application in their own teaching and for the researcher these reflections served as one of the many aspects in establishing the effectiveness of the program. The study also proves significant as a good example in experiential learning and active engagement of the 21<sup>st</sup> century skills in terms of presenting the project to the real audience and justifying what makes the product design and service unique.

### **Delimitations**

The study is delimited to the batch of in-service teachers at BTC enrolled for professional development in November 2019. The course timings were pre-set at four hours daily across three days by the professional development program coordinator at BTC and the respective teacher institutes. The study only considers the teaching learning activities in PBL across these three days. To simulate real learning, for the presentation of the project the panel consisted of the two BTC faculty who were very generous in agreeing to help the researcher to act as an authentic audience.

### **Methodology**

The current research is a case study of in-service teachers enrolled in a three-day professional development course at BTC. The teaching strategy that was selected for the professional development by the researcher was PBL. A professional development plan (Table 1) was

developed to provide an introduction and hands-on experience with the key aspects of PBL such as the entry launch, driving question, project work, presentation of projects, reflections on the project as well as the experience, and project planners. All tasks and activities were preceded with team building activities.

Table 1 Professional Development Plan

<b>Day 1</b>	<b>Day 2</b>	<b>DAY 3</b>
<b>Objective–</b> Introduction to PBL	<b>Objective–</b> Hands on to PBL	<b>Objective–</b> Planning a PBL for your class
<b>Welcome &amp; greetings</b>	<b>Recall 5 Star points from Day 1</b>	<b>Recall 5 Star points from Day 2</b>
*Synonym & Antonym pairing	*Height order	*Q & A pairing
<b>Concept building of PBL</b>	<b>Big question about PBL</b>	<b>Project planner &amp; sample</b>
*Running vocabulary	*Animal farm	*Specialization grouping
<b>Group forming</b>	<b>Team building</b>	<b>Presentation</b>
*Word family	*Likert scale	<b>Reflection</b>
<b>Meaning, significance, myths, &amp; steps</b>	<b>Entry launch – Project Proposal</b>	
*Jigsaw strategy	*Hands on with the Project	
<b>Driving question</b>	<b>Presentation</b>	
*How can we...?	*A million-dollar plan!	
<b>Reflection</b>	<b>Reflection</b>	

\*all starred items are team building activities

In their study, Bani-Hani et al. (2018) studied factors affecting team formation and work in PBL for multidisciplinary engineering students. In its analysis, the study identified four students as the ideal number per team with two from each discipline, although the students showed preference for choosing their teammates than be grouped by the teacher. The study also revealed others factors such as gender, religion, and ethnicity as important in forming teams. For the current study, once the project teams were set (three teams of four and one team

of five in-service teachers since the total number of the participants was 15), the researcher used the deductive approach by making the participants come up with a driving question based on some activities. The researcher used an inductive approach to introduce the entry launch by modelling it. The participants had to follow this up with preparing an entry launch for their class level on a topic from their discipline. The main project work selected by the researcher for the professional development course was to redesign the college floor plans since the college didn't have any and the classroom numbering followed complex coding. Each team was well versed with team ethics after several team building activities and each team also had everyone with unique talent in technology, art, engineering products, and language. The projects were presented to a panel representing an authentic audience with the best project to receive a symbolic million-dollar paper cheque. The final practice was familiarizing the in-service teachers with the project planner and applying the knowledge to plan for a topic in their own disciplines and level of teaching. Reflections at the end of the professional development course were evaluated to determine the extent to which the in-service teachers found PBL a valuable method and would be willing to use it in their own teaching.

### **Sample Size**

The current study was conducted with the aim to develop an understanding of PBL for a small population of in-service teachers and not to test a hypothesis about a broad audience. With the sample being most accessible to the researcher, non-probability purposive sampling technique was used in the current study. A total of 15 in-service teachers enrolled in the continuous professional development course at BTC in the University of Bahrain formed the sample for the study. The sample consisted of the in-service teachers from different disciplines and levels with English as their medium of instruction. In the sample, 14 were females and 1 male. The current study required the sample to work on their projects as teams. The researcher formed the teams with the help of an activity in which the participants stood on a hypothetical scale of 1-10 across the classroom in response to their ability in use of technology. Once the participants took their positions, the researcher picked every fourth person to form a team. This strategy was effective in making sure every group had members with equal variance in the use of technology.

### **Data Collection Tools**

The data was collected from all in-service teachers in the form of samples of tasks and direct quotations from reflections on the course content, delivery, and peer observations. The samples

of tasks comprised of the entry launch, peer observations on the entry launch (Table 2), driving questions (Figure 1a IST7 & Figure 1b IST4), project work (Figure 2 Before and After (IST2, IST4, IST1, IST7, & IST 13), and project planner. Samples of reflections were collected as essential data on how the overall tasks and related activities were perceived. Samples of peer observations on the entry launch were collected to know the extent to which the in-service teachers exhibited creativity and critical thinking. A quasi-experimental study conducted by Yustina, Syafi, & Vebrianto (2020) on 76 biology pre-service teachers to estimate their creative thinking using the blended learning and PBL approaches, found the experimental group with an N-gain index of 0.62 over the N-gain index of 0.51 in the control group. Hence, the samples of work and peer observations provided a good measure of creativity and ability for critical thinking in the sample.

### **Data Analysis**

To add to the validity of the current research, the data was analysed based on the achievement of the objectives on the assigned tasks such as, the entry launch, driving questions, project work, and project planner. Reflections on the final day were also considered for analysis. The use of the frequent vocabulary and common answers were identified in the reflections on the tasks and their PBL context to conduct the inductive analysis of the data. Like any other qualitative research analysis, themes and categories were determined to interpret the data. To establish the reliability of the current research, categories, themes, and codes are supported by examples of responses in the tables. Hence, the researcher triangulates the information obtained from different sources (such as tasks and reflections in the current study) to converge and synthesize and build a comprehensive understanding of the phenomena (Patton, 1999). Generalizations cannot be made on the findings since the data describes only a single study group, and hence the conclusions of the current study are therefore limited to the sample of the study. However, from the current study, the analysis of categories and themes are intended to help other researchers in comprehending results of similar cases in their studies (Büyüköztürk et al., 2008). For analysis, code IST denotes work and reflections by the in-service teachers.

## Results

### PBL Category I: Task 1 (Theme: Entry Launch)

Table 2 Peer Observation on Entry Launch

IST code and Theme	IST code of peer feedback
Entry launch by IST 1	<p><i>Subtheme: Real learning</i></p> <p>IST 3 “great...very interesting to bring a new face to the class”</p> <p>IST 14 “easily understandable by the children”</p> <p>IST 6 “clear idea, like bringing a live person and recognizing the direct impact in the school”</p> <p>IST 13 “clear opening and innovative”</p> <p>IST 8 “real life example”</p>
Entry launch by IST4	<p><i>Subtheme: Creativity</i></p> <p>IST3 “amazing idea...students will love being in charge of the whole production process”</p> <p>IST8 “exciting idea”</p> <p>IST2 “fun activity through market day”</p> <p>IST12 “original”</p>
Entry launch by IST 7	<p><i>Subtheme: Innovation</i></p> <p>IST 3 “very nice, the students will love to see the teacher as another person”</p> <p>IST 6 “very creative and loved the idea of dreaming up”</p> <p>IST 15 “teacher dressed up as an artist would spark up children’s curiosity</p> <p>IST 5 “creative and interesting how she connected Art and PBL”</p> <p>IST 8 “so interesting and fun”</p> <p>IST 4 “new idea”</p> <p>IST 12 “very innovative”</p>

## PBL Category I: Tasks 2 (Theme: Driving Question)

Figure 1a (IST 7)



**Title: Artist that made a difference.**

**Content Area: Art History, Art, Drama.**

**Grade Level: 4**

**Duration: 5 weeks**

**Driving Question: How would I look like if I was a Vincent Van Gogh?**

Figure 1b (IST 4)

**Driven question: How do we make our product attractive to the buyer ?**



## PBL Category I: Tasks 3 (Theme: PBL Project)

Figure 2 Before and After (IST2, IST4, IST1, IST7, &amp; IST 13)



## PBL Category II: Reflections (Theme: Reflections)

Table 3 Reflection on PBL

IST code	Reflections on PBL
IST 8	“I’m so confident to use the PBL method in class, it’s more interesting than a normal lesson. I have learned a lot...”
IST9	“Hearing about PBL for the first time I thought that it can only be used for students of high grades and only for practical subjects...samples from colleagues helped me correct those misconceptions”
IST10	“almost 80% confident of implementing 21 <sup>st</sup> century skills in my teaching”
IST5	“it taught me a lot of 21 <sup>st</sup> century skills that can be developed in school teaching”
IST4	“I’m confident that PBL is good for my school, because it will help students to work as team and enjoy their lesson instead of having routine learning way.”
IST 7	“I think PBL is very interesting for students ... I’m going to use it in the class.”
IST 11	“I learned how we can work as a team with different skills.”

## Discussion

In a study carried out by Lotter et al. (2020), when teachers used their PBL model to teach their students, the results showed that the teachers gradually improved their content knowledge and the quality of inquiry-based instruction. Furthermore, the teachers also modified their instructional beliefs and their beliefs about student learning and teaching. To answer the first research question, *how to design a plan for PBL in a professional development course for teachers*, the researcher attempts to demonstrate the possibility of familiarising in-service teachers with key elements of PBL by developing a three-day professional development plan (Table 1). Considering that the key aspects of PBL are the entry launch, the driving question, the main project, presentation of the project before the authentic audience, and reflections upon the project, the researcher divided the tasks across three days. The first day focused on the introduction to the concept of PBL, clarifying the difference between doing a project and project-based learning, and engaging the in-service teachers in writing a driving question (Figure 1a IST7 & 1b IST4). The second day focused on delivering the entry launch with peer observations (Table 1) and working in teams on the project which was to propose a better floor design for the college. The designs were presented to the panel of authentic audience represented by the two faculty members. The winning project was awarded a million-dollar contract after each presenting team justified their expertise and defended their plans (Figure 2). The third and final day was kept for the in-service teachers to become familiar with and prepare project plans on topics that suited their grade levels before the final task of writing a reflection on their experience with PBL (Table 2).

To answer the second question, *how to engage effective team building strategies in PBL for a professional development course for teachers*, the three-day professional development program started with conceptualizing teams as different from groups. Hence, across the three days, all tasks were built on or around team building activities (Table1). The initial activities focused on getting familiar in pairs, and then in groups. The groups were re-grouped every time for different tasks till the project team was decided after everyone seemed comfortable with mostly everyone. Once the project teams were formed, all teams engaged the best abilities each member could offer from planning, to completing, and presenting the project.

To answer the third research question, *how to measure the effectiveness of PBL in a professional development course for teachers*, the analysis of tasks, peer observations and individual reflections serve as an evidence of learning. These sources of evidence confirm that not many in-service teachers had a clear idea of PBL, they commonly confused it with doing of projects, the concepts of an entry launch and a driving question was unheard of by all, and

not many had a clear idea of what 21<sup>st</sup> century skills are. By working on the key PBL tasks such as delivering the entry launch, writing of driving question, working on the project in their teams that synergised the best skills of each member, planning a project for their own course and grade, and final reflections, instilled some amount of confidence in the participants to attempt this method in their teaching. In their reflections, they have voiced a need for support from school leadership, more training in effective use of this pedagogy, and above all a willingness on their part to make learning more realistic.

### **Conclusion**

The conclusions to be drawn from this case study are for teachers, learners, and school leadership. Teachers need professional development in 21st century pedagogy with a periodic follow up updating their trained skills. They also need training in designing PBL assessment criteria that is authentic and learning oriented than grades oriented. The teachers look up to the school leadership in providing them with necessary support in terms of space, materials, time, and flexibility. Schools may consider setting up a PBL lab to unleash the creativity and innovation critical to the growth of every economy. Lessons learned from the pandemic must also initiate schools to train teachers in the pedagogy of PBL that can handle learning remotely and still be authentic. For learners, such pedagogies apart from providing functional assessment of their knowledge and abilities, offer a chance to exhibit global citizenship in demonstrating 21<sup>st</sup> century student outcomes, opportunities to engage their passion in learning, early exposure to a work culture, ability to take risks, an experience in life competencies, and becoming well versed in the use of technology to enhance their learning.

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## **Explanatory Factor Analysis Determines Students' Preferences for ESP Course Contents**

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**Dr. Tharwat M. El-Sakran's** research interests are in the fields of Teaching English as a Foreign Language (TEFL), Teaching English to Speakers of Other Languages (TESOL), Teaching English for Specific Purposes (TESP), Discourse Analysis, intercultural communication and forensic linguistics. He has published four books and a substantial number of research papers in peer-reviewed journals. Along with his colleagues, he has been engaged in the teaching of technical communication skills through engineering multidisciplinary projects. In such projects the focus is on teamwork, personality management and development, and student-centered learning. Dr. EL-Sakran is one of the associate editors for the Asian ESP Journal. He is also a Certified Fraud Examiner.

### **Abstract**

Requisite engineering graduates' competencies and skills have been of interest to higher education accreditation agencies, academicians, researchers and the engineering industry. Hence, higher education institutions are expected to produce employable graduates who possess refined team work skills, can assess their own work and that of others, can provide sound feedback and make rationally informed decisions. Such skills are critical for today's university graduates and for the labour market's employability. Consequently, the contents of an English language for engineering course were revised and made to address students'

academic, occupational and professional needs. Unlike previous ESP studies that focused on holistic ESP course evaluations and since this course covered numerous activities, academic, occupational and professional, it was the aim of this study to specify the learners' perceptions of the individual course components and find out which ones they liked more than the other(s). Explanatory Factor Analysis was used to break the course components into factors and dimensions. Results reveal that the learners' perceptions of their needs change as they proceed with the course and take on new tasks. That is, students view and assess course items differently according to their immediate and future needs. For example, course items' importance was mainly assessed based on the learners' perceptions of the immediate pragmatic usefulness of the course contents in other courses or academic activities. The findings of this research can be taken as evidence of the students' awareness of their academic, occupational and professional needs. They can also help course designers divide the course into immediate needs and future needs, and give the former more focus in the early stages of offering the course. The research concludes with limitations and suggestions for further research.

**Keywords:** *ESP course contents, students' preferences, explanatory factor analysis, academic needs, labour market requirements, employability skills*

## **Introduction**

Recent trends and orientations in the teaching profession, ranging from learner autonomy, learner-centered approaches, learner responsibility and changes in teacher role, besides labour market requirements; have led to various fundamental and radical changes in course and syllabus design, their contents, learning objectives and learning outcomes. Hence, higher education institutions are expected to produce employable graduates (Ankit & EL-Sakran, 2020, Kumar, 2020) who possess refined team work skills, can assess their own work and that of others, can provide sound feedback and make rational decisions. Such skills are critical for today's university graduates and the labour market's employability (EL-Sakran, 2018a; EL-Sakran and Awad, 2012; El-Sakran, Prescott and Mesanovic, 2013). Furthermore, educational institutions seeking international recognition have taken into account The Accreditation Board for Engineering and Technology's (ABET) academic and employability skills that have been deemed essential for an engineering undergraduate curriculum. The American University of Sharjah (AUS), an ABET accredited private educational institution in the United Arab Emirates (UAE), is no exception to this. Consequently, the existing English for Engineering course taught at AUS was radically revised. The revisions included changing the course's name to

Professional Communication for Engineers requiring students to work in multidisciplinary teams, drawn from different majors, make a succinct collaborative oral presentation, give a poster presentation and produce a written report on their multidisciplinary projects (see appendix 1 for the EMDP development and implementation model). In addition, students are also trained to conduct effective meetings, to plan and document decisions, to set planning goals and meet deadlines, to manage themselves and their peers, to show leadership and to evaluate their peers. There is also emphasis on responsibility at personal, inter-personal and community levels developing the sense of a community of professional practice (see appendix 2 for themes covered).

The course contains several assessment tasks such as delivering team oral progress reports, writing the EMDP research proposal, designing and giving poster presentations, writing transmittal letters and executive summaries, constructing individual resumes, analyzing engineering internship advertisements (EL-Sakran, 2018a), so that the students know labour market requirements and write internship application letters in response to them, and submitting a final EMDP research project in addition to other tasks emphasizing personality development such as pre-employment personality tests (EL-Sakran & Prescott, 2017).

All in all, this course is made to cover three different milestones in the students' lives. In English for Specific Purposes' (ESP) terminologies, the course is geared towards serving the learners' needs in relation to their academic fields, occupational and professional needs (Anthony, 2018; Khan 2019; Lili, 2015). As such, all ESP courses are essentially goal-oriented and students' and labour market needs have to form the foundations for designing such courses. Thus, Anthony (2018, p. 11) notes that ESP courses may serve academic, occupational and professional purposes. Hence, this professional communication for engineers course, based on the students' present situation analysis (PSA) and target situation analysis (TSA), has been made to cover students' academic, occupational and professional needs, although according to Anthony (2018, p. 11) "... divisions in ESP are actually quite fuzzy and need to be treated with care." He further adds that "... language needs are clearly going to be similar in many ways" (p. 15). An example of this is presentation skills which may be common among the three ESP course focus areas. For the purposes of this research, academic needs are defined as those that students require to successfully complete their engineering degree, occupational needs are those skills that students should have and be able to execute so that they can apply for either internship or full time positions and professional needs are those that will enable students to

function well in the engineering labour market upon graduation. In this regard, Belyaeva (2015) points out that:

University students are the type of learners whose language needs include communication both within and across professional boundaries. Within professional boundaries learners need the English knowledge to meet the academic requirement of their study programs, access study materials, and communicate their findings. As future professionals, students need to be aware of the vocabulary and communication patterns that are characteristic of their field of study (p. 86).

Of course, there will always be some needs that are common among ESP courses focus areas. To address these needs, teaching the course delineated upon in this study has promoted an approach that is not characteristic of conventional technical writing, engineering or communication texts. The approach is based on an engineering multidisciplinary project (EMDP), which operates as a pedagogical tool and has agency in promoting attainment of students' academic, occupational and professional communication skills. Thus, the new syllabus supports the thinking that a sound knowledge of engineering theory and practice alone is no longer sufficient to meet the demands of the market place, since graduates must be able to go beyond learning content because the knowledge economy does not pay for what you know, but for what you can do with what you know (Rajprasit & Hemchua, 2015).

### **Objective of the Research**

Like all courses, evaluation is of paramount help in teaching ESP courses. It is meant to help learners and educators know how the teaching went on. That is, it measures how efficient the teaching and learning processes were (Anthony, 2018; Guerid, 2019). Unlike previous ESP studies that focused on holistic ESP course evaluations (Arnó-Macià, Aguilar-Pérez & Tatzl, 2020; Guerid, 2019; Khan, 2019; Lu, 2018) and since this course covered numerous activities, academic, occupational and professional, it is the aim of this study to probe into the learners' perceptions towards the course components as a whole and find out which ones the learners liked more than the others. Put differently, because this course lasts for about four and a half months, this research tries to reveal any major changes in the learners' perceptions of their

needs as they proceed with the course and take on new tasks, especially with the availability of evidence that needs change with the rise in ranks (Chan, 2019).

In line with research on teaching and learning effectiveness and in an attempt to better serve learners' needs and industry requirements, this study explores the students' perceptions of the relevance of the new course contents. For the purposes of this study, the concept of relevance is used to measure students' perceptions of the usefulness of course contents. It is based on Keller's (1983) and Muddiman and Frymier's (2009) definition of relevance as a student's perception of whether course contents satisfy personal needs, personal goals, and/or career goals. Keller's (1983) relevance comprises four constructs: Attention, Relevance, Confidence and Satisfaction (ARCS). Attention refers to teacher's ability to get students interested in the course. Relevance is the learner's satisfaction with the course, motivation is achieved when the course meets the learner's needs and confidence refers to the student's expectation of getting a higher grade in the course. According to the ARCS model, relevance is achieved when instructors succeed in making students perceive course contents as targeting some requisite or required needs or goals.

These could be academic (i.e. academic presentations, research projects writing, engineering senior design 1 and 2 research projects, etc.), personal (i.e., leadership skills, teamwork skills, confidence, etc.) and corporate (i.e., workplace requirements). That is, relevance of the course contents is examined from the users' perspective; the user's relevance, in Nolin's words (2009). The study is conducted to avoid any mismatches between students' perceptions of relevance and instructors' perceptions of the course relevance. It also aims to ensure that learners' acquired skills are those that their academic study and the work environment demand. When students perceive course contents as relevant this makes them "become motivated to think about the material and may retain the information for longer periods" (Muddiman and Frymier 2009:132). Along the same lines, Keller and Suzuki (2004) argue that relevance was effective when course materials were related to students' intrinsic goals and needs. Therefore, the results are expected to inform and guide any future changes in the course contents.

### **Research Questions**

This research intends to find answers to the following questions:

1. How do the students perceive the components of the course as a whole?
2. Can EFA be used to determine the variability of each factor and its dimensions within the ESP course components?

3. What course components do the learners of the professional communication for engineers course like more than others, and why?

Finding answers to the above questions will help reveal the learners' perceptions towards the course components as a whole, what the weight of each component is, whether they are aware of their various needs and what components they like more than the others. Such details should help course designers select relevant materials and appropriately sequence them.

## **Methodology**

### **Data Collection Tool and Procedures**

For the purposes of this research, an online survey was used. In a pilot study, the draft survey was tested on a sample of 10 students, with no one reporting difficulties in understanding the questions or filling in the survey. The survey items were derived from the new course learning objectives and its contents. The survey was divided into three main sets, each with its components, as follows:

1. Academic Needs
2. Occupational Needs and
3. Professional Needs

Under each of these factors, all the items covered in it were listed, including the common ones among all of them. The learners were asked to read each set and rate the importance of the different knowledge dimensions covered within the set on a scale out of 10. The ratings within each set were used to calculate the weight for each dimension. The final survey was deployed via the university's iLearn system, after obtaining all the required ethical approvals, to all students who completed the course with the researcher. Reminders were sent to all students on a weekly basis for a period of five weeks.

### **Participants**

The participants represented seven different engineering majors at AUS as follows: Civil, Computer Sciences, Computer Engineering, Mechanical, Chemical, Industrial and Electrical engineering. The total number of students who completed the newly designed Professional Communication for Engineers course was in the range of 500+. Nevertheless, the overall responses after five reminders were 111.

## Analysis Procedures

The Explanatory Factor Analysis (EFA) technique has been used to achieve the objective of this study. EFA is one of the most popular multivariate statistical analysis techniques employed to explain the covariances or the correlations between various manifest variables (or indicators) by means of relatively few underlying (latent) constructs or factors. SAS-Studio was used to perform EFA on the data set. According to Hair, Black, Babin & Anderson (2019), EFA is an explanatory method used to measure latent (unobservable) factors that cannot be measured in real life like performance so we need some indicators or manifest (observed) variables that can lead to measuring the latent ones. The first step was to measure the manifest variables or factors. These were as follows: academic needs, occupational needs and professional needs. Second, the questionnaire items are named by the dimension number, which has A as a prefix (A1-A12). Descriptive labels are given below for ease of interpretation.

A1: Writing the research proposal

A2: Working on the engineering multidisciplinary project

A3: Giving oral progress reports and poster presentations

A4: Writing CVs

A5: Internship/job application letters

A6: Conducting mock job interviews

A7: Personal attributes

A8: Personality and subject contents tests

A9: Other personality and employment related issues

A10: Acquiring and developing managerial and team leadership skills (The Belbin Test)

A11: Writing precise and clear messages

A12: Meetings and meetings documentation

Then, the EFA path diagram was used (see below) to visually display the loads of the dimensions on the named factors. This was statistically measured by adopting a threshold of  $|0.6|$ . That is, any dimension with less than  $|0.6|$  was considered to be amongst the common dimensions available in all three factors. By the application of the EFA path diagram exhibited below, the following conclusions were observed.

Factor 1: Dimensions A1-A3 are highly loaded on factor 1. That is, they all explain or measure the same category which is the academic needs of the students.

Factor 2: Dimensions A4-A6 are highly loaded on factor 2. That is, they all explain or measure the same category which is the occupational needs of the students

Factor 3: Dimensions A7-A9 are highly loaded on factor 3. That is, they all explain or measure the same category which is the professional needs of the students

The dimensions from A10 to A12 are common among all the factors as they have low weights on the three factors listed above.

### **Results and Discussion**

As far as question 1 is concerned, all the respondents perceive the course as a whole as highly useful, relevant and interesting. However, when asked to rate the course contents for their importance/usefulness to them, the results showed that the first factor accounts for 61.8%, the second factor explains 23.4% of the total variability in the data, whereas the third factor weighs 14.8% of the total variability. This indicates that the most significant factor for the learners is number 1, followed by factors 2 and 3 respectively. Results also indicate that the most important activity was working on the EMDP research and all the items related to it. Although academic skills are viewed as more useful than others, it is in order to point out that these skills include several market related items that students had to practice while working on the EMDP. Examples of these are conducting team meetings, preparing meeting agendas and recording meeting minutes in addition to chairing team meetings. It is also observed that labour market related skills come in third and fourth places followed by the dimension of writing precise and clear messages in last place as demonstrated in Figure 1 below:

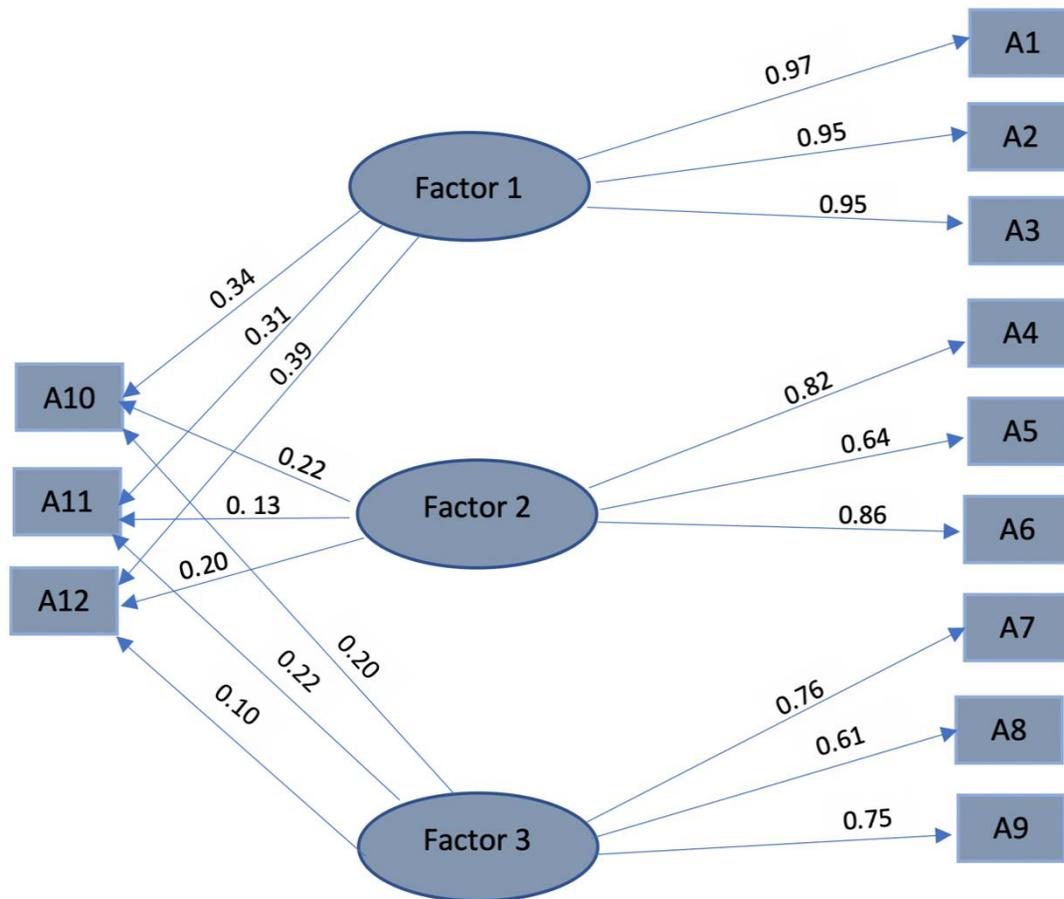


Fig. 1: Explanatory Factor Analysis of Course Contents

The above EFA path shows that indicators A1-A3 are highly loaded on factor 1 which indicates that they all explain or measure the same category which is the Academic needs of the students. The indicators A4-A6 are highly loaded (or highly correlated with factor 1) on factor 1 which indicates that they all explain or measure the same category which is the Occupational needs of the students. Moreover, the indicators A7-A9 are highly loaded on factor 3 which indicates that they all explain or measure the same category which is the Professional needs of the students. Nevertheless, the dimensions A10-A12 are common among all the variables as they have low weights on the three factors.

Worth noting here that the students register for engineering senior research project 1 immediately after they successfully complete this course. Perhaps, this justifies why students see the research proposal, the project presentations and other related items as more useful. It is also interesting that the participants see the CV design, the IAL writing and the mock interviews of importance since they may choose to go for internship immediately after

successfully finishing this pre-requisite course. Furthermore, all respondents see items 6, 7, 8, 9, 10 and 12 as important because such activities target personality development, which may be a new concept to them. However, a striking difference is noted between these items and item number 11. A plausible reason for writing precise email messages occupying last place could be that learners, being students at an English language medium educational institution, feel that they already have good control over this. This feeling also makes students resist the idea of teaching them how to structure clear and precise written messages. That is why the present researcher always provides his students with some specific writing contexts and asks them to write simple messages in response. Then, the written product, after removing any writer's identifying details, is discussed and assessed in class for clarity, accuracy and comprehensibility. Needless to say, that the submitted messages most often lack preciseness and clarifying details, but only then; students become convinced that they require more polishing of their interpersonal writing skills (for more details, see EL-Sakran, 2018b).

The conclusion reached from the students' survey responses is that they view and assess certain course items differently according to their immediate needs. Here it can be argued that the results indicate that the importance of course contents is measured by their usefulness for the students' immediate real-life endeavors/activities. For example, usefulness was mainly assessed based on the learners' perceptions of the pragmatic usefulness of the course contents in other courses or academic activities. The findings of this research can be taken as evidence of the students' awareness of the academic, occupational and professional requirements they need to acquire and develop. This conclusion seems to contradict Belyaeva's (2015) argument that "...instructors should bear in mind that learners often do not clearly perceive their future professional roles" (p.87).

Broadly speaking, in the process of planning for an ESP course, all of the above listed factors must be included because the exclusion of one dimension might reduce the quality of the course. Furthermore, it is vital that repeated revisions of ESP syllabi are regularly conducted based on systematic and consistent needs analyses of students' and the labour market requirements to bring about the desired learning outcomes (Karimnia & Jafari, 2017; Machmud, 2018; Gözüyeşil, 2013).

## Conclusion

Although the decisions concerning the revised course contents were based on ABET's recommendations, results of research on engineering requisite communication competences and engineering and English communication teaching faculty's conceptions of communication skills that engineering students need to develop, the results obtained from the current study confirm that the respondents appreciate the revised course syllabus and view it of great relevance to their academic, personality and labour market needs. Furthermore, the students' high perceptions of the positive impact the course contents have had on their academic skills, personality attributes and labour market requisite skills indicate that the new changes respond and reflect real students' needs and forge a stronger link with workplace requirements. These changes reflect, in a localized context, the paradigm shift in curriculum in many facets of education over the past few decades (Tautila, 2017). This also supports the statement Gözüyeşil (2014) has made that:

Instead of teaching a language according to what the teachers and administrators think their students' needs are, it is vitally important to include the students into the process of decision making, taking their preferences and wants into account. Therefore, a needs analysis is the foremost step which leads to preparing a learner-centred curriculum within a learner-centred approach (p. 4182).

Moreover, this research has been successful in assigning weights to the individual components within the course, which could help future course designers in striking appropriate balance between the items ESP courses comprise. For example, this research shows that academic needs are the most important aspects for the students at this stage of their education. As such and on the basis of EFA and the students' needs assessments, academic needs may be granted more focus in the early stages of offering the course and needs with less weight could be covered later. This could help divide course structure into immediate needs and future needs. Nevertheless, there is no study without limitations. The results of this study are based on students' reported perceptions of the usefulness of course contents. Therefore, future researchers may choose to follow up AUS engineering students who took this course and ask their professors and employers about their performance and whether they meet academic and workplace requirements or not. Others may examine the relationship between students' perceptions and how they perform in field-specific tasks and activities. With the availability of

evidence (Gborson, 2015) that mismatches exist between learners' self-assessment of their educational needs and the instructors' perceptions and assessments of the same learners' needs, future researchers may consider utilizing EFA in examining any differences between the two views and creating harmony between them before the actual structure and implementation of the course.

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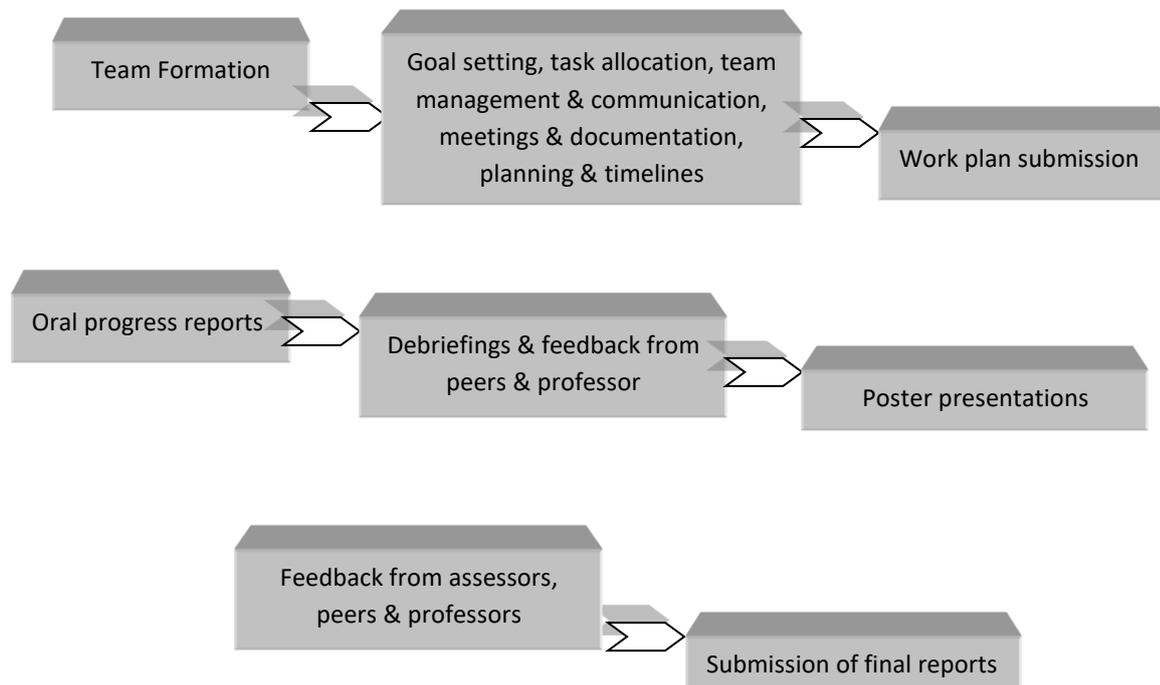
**APPENDIX 1**

Fig. 1: EMDP development and implementation model

## APPENDIX 2

Table 1: Themes covered in the course

<p><b>Theme 1</b></p> <p><b>The workplace environment</b></p> <p>Engineering disciplines in action</p> <p>Understanding other engineers</p> <p>Team role behavior and competency</p> <p>Self-perception and team work attributes</p> <p>Valued team skills and valued team traits</p> <p>Managing teams</p> <p>Team work related problems</p> <p>Team repair strategies</p> <p>Individual and mutual accountability</p>	<p><b>Theme 2</b></p> <p><b>Team meetings and planning</b></p> <p>Meetings, agenda setting, minute taking</p> <p>Brevity and accuracy</p> <p>Inclusive, purposeful meetings</p> <p>Decision making and resolution strategies</p> <p>Documenting decisions</p> <p>Gantt Planning</p> <p>Setting tasks and deadlines</p> <p>Choosing and focusing a research topic</p> <p>Meeting language</p> <p>Language of emails</p>
<p><b>Theme 3</b></p> <p><b>Engineering multi-disciplinary projects</b></p> <p>Academic literacy</p> <p>Using databases</p> <p>Information literacy</p> <p>Planning a project [Gantt]</p> <p>Risk assessment</p> <p>Plan 'B'</p> <p>Researching a topic and identifying sources</p> <p>Drafting multi-disciplinary project proposals</p> <p>Proposal language</p> <p>SPSE pattern</p> <p>IEEE citation conventions</p>	<p><b>Theme 4</b></p> <p><b>Team presentations and oral proficiency</b></p> <p>Oral progress reports</p> <p>Planning the presentation [Gantt]</p> <p>Text v visual information</p> <p>Structuring information</p> <p>PowerPoint v Prezi v Illustrator</p> <p>Body language and gestures</p> <p>Transitions from one speaker to another</p> <p>Signaling language</p> <p>Interpreting and answering questions</p> <p>Rehearse, rehearse, rehearse</p> <p>Oral presentation language</p>
<p><b>Theme 5</b></p> <p><b>Visual presentations</b></p> <p>Poster design</p> <p>Student planning advice</p> <p>Image v text</p> <p>Poster language</p>	<p><b>Theme 6</b></p> <p><b>Report writing</b></p> <p>Front matter</p> <p>Back matter</p> <p>Glossary and definitions</p> <p>Letter of transmittal</p>

<p>The 'A' paper series</p> <p>Hierarchies of information</p> <p>Legibility</p> <p>Oral explanations of image and text</p> <p>Politeness gambits</p> <p>Dealing with questions</p> <p>Poster presentation assessment</p> <p>Assessors and assessment guidelines</p> <p>Rehearse, rehearse, rehearse</p> <p>Filming the presentation</p> <p>The poster presentation as multi-modality</p>	<p>Executive summary</p> <p>SPSE pattern</p> <p>Recommendations</p> <p>Tables and figures</p> <p>Referencing and cross referencing</p> <p>IEEE citation conventions</p> <p>Report language</p>
<p><b>Theme 7</b></p> <p><b>Labour market and requisite personal attributes and skills</b></p> <p>Team leadership and teamwork skills</p> <p>Punctuality and responsibility</p> <p>Creativity and problem solving</p> <p>Listening to others, respect and tolerance</p> <p>Coordination and subordination</p> <p>Planning and managing pressure</p> <p>Gains in specialist knowledge</p> <p>Engineering job ads</p> <p>Writing accurate clear and precise messages</p> <p>JALs and résumés</p> <p>Interview skills</p> <p>Archiving skills and e-portfolios</p>	<p><b>Theme 8</b></p> <p><b>Professional reading and review</b></p> <p>Reports</p> <p>Conference papers</p> <p>Professional and academic papers</p> <p>Compliance manuals</p> <p>Handbooks</p> <p>Specification standards</p> <p>Tender documents</p> <p>Regulatory documents</p> <p>Technical analysis documents</p> <p>Contracts</p> <p>Flowcharts</p> <p>Data sheets</p> <p>Certification documentation</p>



## **ELT Assessment Patterns Dictate Teaching-Learning Approaches: A Hindrance to Map out Employability and Life Skills**

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### **Bio-profile:**

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### **Abstract**

There is a plethora of research on the multifarious dialogues on English Language as (EFL and ESL), its teaching-learning approaches, assessment patterns, the learners' employability and their life skills. How all these aspects affect and influence one another, need further exploration. Unfortunately, there is a lot of criticism on the ELT output just for the sake of criticism with reference to employability and life skills but practically the least has been done so far. A wise saying is that "action speaks louder than words". The most important and vital point is that English Language and Literature syllabus may be different in different colleges and universities but the assessment patterns are approximately the same. The alarming situation is that maximum questions are responded through cramming and rote learning where there is no reflection of creative skills and competency in English Language. Exceptions are always there, a few graduates and post-graduates may be excellent but majority of the output is a bit weak and lacks confidence in the use of English language in problem solving, critical analysis and soft skills.

The focus and **significance** of the present study is “how can the ELT approaches and assessment patterns be adapted and transformed specifically to meet the demand of the labor market, employability and life skills including soft skills in practical life-like situations. In a word, the ELT faculty and the learners are forced to teach and learn as the assessment patterns demand. The English Question Paper Patterns are the most important entity for the teacher and the taught for success in final examinations. Mixed-methods research has been used in the present study in washback perspective – (i) the researcher collected and analyzed 75 Question Papers of English from the Kingdom of Saudi Arabia, India, Bangladesh and Pakistan, and (ii) developed questionnaires cum opinionnaires for the ELT teachers and the students in Jazan University, Jazan (KSA), and administered online. To determine findings and conclusion, the collected data have been analyzed in the employability, life, and soft skills perspectives that confirmed the validity and reliability of the present research hypothesis that ‘English language formative and summative assessment patterns are the core-issues that dictate the teaching-learning process ignoring the learners’ development in the employability and life skills.

**Keywords:** *EFL, ESL, assessment, teaching-learning, ELT approaches, employability, life - skills, soft-skills, washback.*

## 1. Introduction

The teaching-learning of EFL and ESL is mandatory in national public education policy of approximately 142 countries (outer circle) in the world. There are about 41 countries in which English language is a possible elective subject at different levels of studies. This shows the importance of its appropriate teaching and learning. Apparently all universities and colleges have predetermined aims and goals for their input and output at national and international levels; specifically English Program Learning Outcomes (PLOs) and Course Learning Outcomes (CLOs) but unfortunately and actually Students’ Learning Outcomes (SLOs) are still a dream with some exceptional cases. The process of diagnostic, formative and summative assessments reflects the real situation. The majority of the graduates reproduce other ideas in others language and they are not creative writers which is so shocking. In KSA and other parts of the world also, students generally go for good grades and not for knowledge, skills and competency.

Although there is a continuous process of curricula development, faculty development and assessment development, i.e. washback; yet the quality of our EFL & ESL output is not up to the mark. The question arises, why is this failure despite concerted efforts for an overall improvement? The possible answer is that all relevant aspects of ELT need to be interrogated seriously and honestly. Thereafter whatever is the conclusion that must not be only on the paper instead the gaps should be filled to overcome the weaknesses at different levels. This sincere approach may produce the graduates with maximum scope of employability and life skills related to the use of English language in real-life-like situations. If not 100% but majority should qualify for the international labor market. This is real national mission and expected output against the input of a nation. If someone says that there is nothing wrong with the teaching material, teaching approaches and the level of assessment; this claim is clearly questionable and deniable; all management at different levels have to revisit the existing and alarming situation to ensure English language teaching and learning a success. All this is difficult but not impossible, just the management, faculty members, students and parents have to play their roles. The faculty members can do a lot toward development of various and the most wanted skills in English language learners through administrative support.

Teachers are supposed to measure what they teach and teach what tests usually measure. Both teacher and students unfortunately, pay attention to what examinations stress, trying to guess what the hot spots are in EFL syllabus. McLaughlin (1991), states that the learners always prepare themselves for test items, to students, studying what does not count in examinations, is considered a waste of time. The prevailing context reflects that all components – assessment, teaching approaches, the teacher, the taught and curriculum are moving in a tightly fixed framework hence the development of critical thinking, creativity, analytical approach and employability and life skills, is still a dream. In a word the stakeholders concerned are to evaluate the assessment process whatever, wherever and whenever needed.

## **2. Significance of the study**

The significance of the present study lies in the fact that it touched upon the core issue of the evaluation of assessment patterns, teaching practices with reference to the employability and life skills that the English language graduates lack in general. Unfortunately, they have no idea of employers' demand even if they get a job they experience difficulties to remain employable afterwards. The graduates are not at fault

instead the system and subsystems are questionable. A total reformation in teaching-learning of EFL is inevitable.

### **3. Research Question(s)**

The research questions to explore the most specific area of the present study are:

- (i) Do ELT assessment patterns dictate teaching-learning approaches?
- (ii) Are ELT assessment patterns a hindrance to map out employability and life skills?

### **4. Objectives**

The objectives of the study in hand are to:

- (i) Determine and collect relevant evidences through appropriate washback as to how ELT assessment patterns harness the teaching approaches?
- (ii) Find out how the ELT assessment either formative or summative proves a hindrance to develop EFL learners' employability and life skills.
- (iii) Suggest some suitable and possible solutions how the EFL teacher and the taught can reform the existing situation and develop employability and life skills in classroom and through extra-curricular activities.

### **5. Conceptual Framework**

The conceptual framework of the present study summarized the pros and cons of EFL testing and assessment in past, present and future. Any language test or piece of assessment must have positive washback or backwash, which means that the effect of the test on the teaching must be beneficial. This should be kept in mind by the test constructors; it is only too easy to construct a test which leads, for example, to candidates learning material by heart or achieving high marks by simply applying test-taking skills rather than genuine language skills (Wall 1997). Language assessment or language testing is a field of study under the umbrella of applied linguistics. The assessment may include listening, speaking, reading, writing, an integration of two or more of these skills, or other constructs of language ability. Although trends in testing, as in other fields, change over time, but some principles of EFL assessment are permanent and are not overly affected by ever changing trends. They need to be held in

mind by the EFL teachers whenever they construct a test, whether this is a class quiz, a class essay or summative assessment.

The most important of these principles fall under three categories such as validity, reliability and washback. The term ‘washback’ refers to the influence of language testing on its teaching and learning” (Cheng, L., Watanabe, Y. & Curtis, A, Eds. 2004). In testing and assessment, if there is no possible way to test the hypotheses created by the relationship between observable variables, and constructs, the theory is meaningless, or ‘scientifically not admissible’. “Classroom assessment is an essential component of teaching and learning. Still, the literature on language testing often highlights teachers’ perceptions of designing classroom assessments with little concern about students’ perceived realities” (Pan, 2020). The demand of the present era is that different perceptions should have some evidences for their validity.

The last era, i.e. the 20<sup>th</sup> century witnessed a situation wherein both teaching process and assessment process were teacher-centered. Weir (1987) mentions that there was no role given to the learner except receiving knowledge from the teacher. The function of the assessment was just to award grades. Similarly, Brown (1984), states that the emphasis in the past was on summative assessment as the purpose was to sort out the students for grades and classification for further studies. That’s how that era was criticized because of over-reliance on the subjective judgment of the teacher and no interference of the stakeholders. Moreover, there was disintegration between the teaching process and assessment process. The present era of 21<sup>st</sup> century formed the assumption that learning is change that can be noticed, in the learner’s behavior which can also be measured in quantitative terms. In some situations, the use of scoring instruments has had the most significant impact on performance-driven pedagogy. “Many teachers we spoke with; said that they use scoring rubrics as “scaffolding” for setting performance expectations for their students” (Khattri, Michael B. Kane and Alison, L. Reeve, 1998).

Buck (1988) describes the washback that there is a natural tendency for both teachers and students to tailor their classroom activities to the demands of the test, especially when the test is very important to the future of the students, and pass rates are used as a measure of teacher success. This influence of the test on the classroom (referred to as washback) is, of course, very important. Thus Buck's definition stresses the impact of a test on what teachers and students do in classrooms (Kathleen M. Bailey, 1999). Five of Alderson and Wall's (1993) restatements of the washback hypothesis directly address learners’ washback: (i) a test will

influence learning, (ii) a test will influence what learners learn, (iii) a test will influence how learners learn, (iv) a test will influence the rate and sequence of learning and (v) a test will influence the degree and depth of learning. Three other points of the hypothesis refer to both teaching and learning: (i) a test will influence attitudes to the content, method of teaching and learning, (ii) the tests will have washback on all learners and teachers, (iii) the tests will have washback effects for some learners and some teachers, but not for others.

Additional skills such as effective communication, soft skills and ability to maintain life-long learning and professional skills are inevitable for the international labour market. Generally EFL learners at graduation level are not ready for what the employers demand or remain to be employable once they get some job because they lack certain job-related skills. Employability skills are always used for the benefit of the individual himself or herself, the workforce, and ultimately the national economy. **Employability skills** generally include – (i) performance through effective communication, (ii) attitudinal and transferable skills, (iii) self-management skills; **personal attributes** such as self-confidence, self-control, inter and intra personal skills, honesty, integrity, reliability, adaptability, flexibility, willingness to learn, stress tolerance, managing time, efficiency; **interpersonal skills** such as teamwork, team building, leadership, management, problem solving, initiative and enterprise, etc.; **higher order communication skills** include oral skills for public presentations, conversations, negotiations, conflict resolutions, knowledge-sharing, discussion, debates, decision-making, and so on.

‘Validity’ in testing and assessment has traditionally been understood to mean discovering whether a test ‘measures accurately what it is intended to measure’. This view of validity presupposes that when we write a test we have an *intention* to measure something, that the ‘something’ is ‘real’, and that validity enquiry concerns finding out whether a test ‘actually does measure’ what is intended to measure. The EFL learners should prepare themselves for the rough and tough life outside the classroom. The required transformations in curriculum, instruction, and assessment will move beyond their current testing systems to new systems of assessment that may be able to support the development of deeper learning skills. “It resolves to provide teachers a baseline tool to develop their own critical pedagogy and techniques” (Totanes & Arceli, 2020). The process of evaluation of an overall framework of EFL assessment, teaching approaches and curriculum should never stop as different theories related to education are always evolving.

## 6. Research Methodology

The present study used Mixed-methods research in washback perspective – (i) the researcher collected and analyzed 75 Question Papers of English from the Kingdom of Saudi Arabia, India, Bangladesh and Pakistan and (ii) developed questionnaires cum opinionnaires for the ELT teachers and the students and administered online, to maximize validity and reliability of the collected data through a cross check of different research tools. To determine findings and conclusion, the collected data have been analyzed in the employability, life, and soft skills perspectives. The data have been displayed in tables and bar-charts for a quick view and ease of the readers.

## 7. Data Collection and Data Analysis

7.1. The EFL Assessment Patterns at Graduation Level: A table has been developed to display clearly the most common EFL assessment/test items in Kingdom of Saudi Arabia, India, Bangladesh and Pakistan. This will help in cross checking of similarities and differences in the assessment patterns. Maximum institutions are practicing similar assessment patterns in the sub-continent and Saudi Arabia. The EFL practices of teaching, learning and testing are purely traditional one, which need revisiting to keep up pace with the swiftly moving modern world:

**Table-1: EFL Assessment Patterns**

Country	Common Objective Questions (Verbs)	Common Subjective Questions (Verbs)
KSA	T/F, Fill in the blanks, Matching, MCQs, Tick/Cross	Define, Explain, Comment, Differentiate, Discuss, Describe, Demonstrate, Illustrate, Distinguish, Evaluate, Analyze critically, Compare, Justify, Short & Long Question/Answer, Reading comprehension, etc. etc.
India	Conversion, Fill in the blanks, Choose the correct, Matching, Identify, MCQs,	Reading comprehension, Short & Long Question/Answer, Summary writing, Essay writing, Critical analysis, Error analysis Description, Make sentences, Explain, Precis writing, Discuss.

Bangladesh	Fill in blanks, MCQs, True/False, Matching	Short notes, Writing Bibliography, Reading & Listening comprehension, Preparing outline, Precis writing, Short and long question/answer, Critical review, Summary writing, Compare and contrast two authors, Critically analyze, Attempt critique, Comparison and analysis, Listing arguments, Discuss, Essay writing, Examine, Elucidate, Comment, Error analysis.
Pakistan	MCQs, True/False, Fill in the blanks,	Short notes, Short & Long Question/Answer, Discuss, Essay writing, Error analysis, Use of Idiomatic expression, Letter and application writing, Reading comprehension, Translation, Dialogue writing, Describe, Narrate, Explain, Define, Explanation with reference to the context, Elaborate, Critical evaluation, analysis/views, Differentiate, Recapitulate, Report writing, Compare and contrast, Highlight, Critical note, Illustrate.

**Analysis Table-1:** The assessment patterns either objective or subjective type of questions are approximately the same with negligible differences. The subjective part of the assessment in India, Bangladesh and Pakistan is a bit expanded one as compared to Kingdom of Saudi Arabia at graduation level. But unfortunately, there is not a slight touch of the skills that EFL learners need for job market such as communicative skills, soft skills, problem solving, team work, and so on. The EFL faculty is well familiar with the ways the graduate students attempt their questions on critical analysis, critical evaluation, and some other similar questions in final exams. The expected response is creative writing, but maximum attempts are generally through ready-made notes prepared just before the examinations by rote learning. In some places English guess papers (even with solutions) are available and the students definitely opt for that ready-made material for their English examinations. This alarming situation demands the appropriate evaluation of EFL assessment patterns, teaching approaches and curriculum to meet the demand of the 21<sup>st</sup> century.

**7.2 The EFL Faculty Questionnaire cum Opinionnaire:** There are 25 questions (18 close ended and 7 open ended) to get maximum information based on the EFL faculty experience.

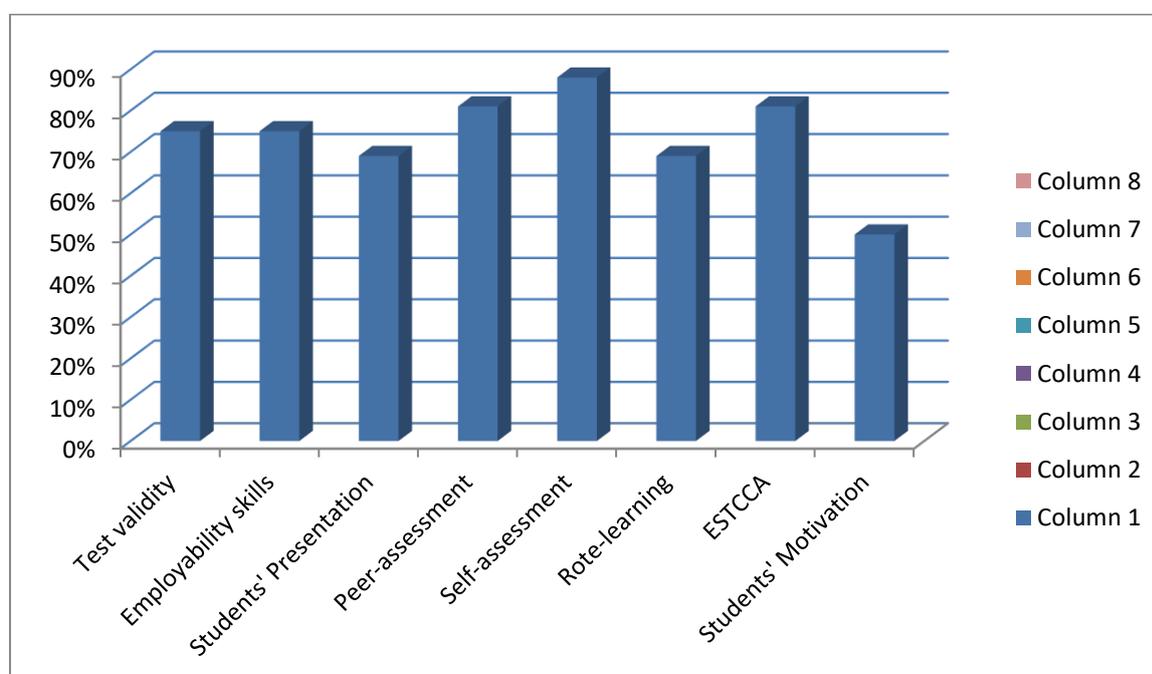
**Table-2 The EFL Faculty Questionnaire cum Opinionnaire**

S/No	Question	Responses		
		Yes %age	No %age	To some extent %age
1	Do you ensure validity of the test items in the EFL formative and summative assessments?	75	-	25
2	Are the test items in your formative and summative assessment the same?	63	-	31
3	Do the assessment patterns harness your teaching approaches?	56	31	13
4	Do you prepare your EFL learners for the predetermined and fixed test items?	38	50	12
5	Are you free to make a choice for some test items/activities that may help developing employability and life skills?	75	18	-
6	Are problem solving activities and assignments common in your classroom?	63	12	25
7	Do students' groups present some topics in classroom?	69	-	31
8	Are you satisfied with the students' interest and teamwork?	31	25	44
9	Do your EFL students accept all challenging assignments cheerfully?	-	37	56
10	Are your students familiar with the importance of soft skills?	37	25	37
11	Are you satisfied with the traditional ways of assessments?	31	50	19
12	Do you think EFL learners' 'Peer Assessment' is useful for developing their confidence and creativity?	81	-	12
13	Would you like to introduce the idea of students' 'Self-Assessment' in EFL classroom?	88	-	-
14	Do you think EFL is being taught and assessed as a subject rather than a language?	44	25	31
15	Are all EFL skills covered in formative and summative assessment?	56	12	31
16	The students attempt their traditional EFL assessment tests through their cramming and rote learning and not as creative writers using critical thinking. Do you agree?	69	-	31

17	Do you think that employability skills can be developed through co-curricular activities?	81	-	19
18	Are your EFL students well motivated to be competent in the use of tangible and intangible skills for their bright future?	25	25	50

### Table-2 Analysis:

Majority of the EFL faculty is of the opinion that the EFL formative and summative assessments are valid for testing students' skills and competency. The EFL faculty is free in making choices for certain activities to develop students' employability and life skills. Activities and assignments are common in the EFL classrooms. Peer-assessment and self-assessment is appreciated by the EFL faculty. However, EFL is not being taught and assessed properly as a language needs to be taught and assessed. The EFL learners generally attempt different assessments through their rote-learning. Employability skills can be developed through co-curriculum activities. To some extent the EFL learners are motivated to be competent in the use of tangible and intangible skills for their bright future. In a word an overall reformation in the EFL teaching, learning and assessment is demand of the time. Moreover, a bar-chart reflecting the most distinctive views of the EFL faculty has been developed for a quick view as follows:



**ESTCCA** (Employability skills through co-curriculum activities)

**Responses to Open Ended Questions (Section-B, 19-25):**

**Q-19: What are the most common test items in EFL assessments: Subjective, Objective or Mixed one?**

The EFL faculty of English Department, College of Arts & Humanities, Jazan University, Jazan responded that both the formative and summative assessment have mixed questions, i.e. subjective and objective. However, objective questions are usually 25% only.

**Q-20: Your subjective assessment items include (You have to write):**

Generally, the subjective questions may include long answers, detailed explanation, short notes, essay type questions, writing paragraphs, descriptions, narrations, definition, discussion, comments, analysis, comparison, and so on.

**Q-21: Your objective test items generally include (You have to write):**

The most common objective type questions are multiple choice questions, true/false statements, fill in blanks and matching.

**Q-22: What are the other test's items that you would like to include in the formative and summative assessment of EFL?**

Preferably independent writing and reading, presentations, projects, peer group evaluation, students' reflection and writing, performance based assessments, authentic tests, creative writing, group discussions, short speech, creative analysis through critical thinking, classroom presentations, self-assessment/evaluation, This variety of assessment would likely help the students to be competent in their practical life and in achieving higher education which consequently support them to stand in their life.

**Q-23: What type of activities and assignments are common in your classroom?**

Some EFL faculty members practice discussion and interaction, written assessment, pair-work, group work activities, project work, quiz, role play, critical reading assignments, presentation, topic related interaction, question-answer sessions, S-S & T-S sharing of ideas/experiences, quiz competition, exposure of their hobbies, sharing future goals etc. Of course again it depends on the level and course what they study.

**Q-24: What does restrain you back from developing the most wanted employability and life skills in EFL teaching? Kindly comment on whatever you experienced so far.**

The most common problems are - the deadline to cover the content of the subject, the EFL learners' attitude, predetermined syllabus, overall it's easy to clear the concept to the students through different activities, top-down approach of testing and standardized Common Exam one size fit all tests are strong barriers in giving customized tests for different ability groups, lack of students' motivation, assessment patterns, lack of response from students, lack of language skills on the part of Arab EFL learners and their orthographic problems. Students don't have zeal to learn with academic bent of thinking. Students are pampered and mothered by the Saudi teachers. Management and administration are in support for the students. Hence, expats have to restrain back. There is no proper internet facility in the classrooms. Last but not least there is no digital language laboratory to develop language skills, employability skills and soft skills.

**Q-25: How can we transform the existing assessment patterns into the prevailing demand of the employers?**

There is always a scope of improvement; where there is a will there is a way. Certain steps such as – making the assessment more relevant and close to the reality, multi-tasking is the need of the hour, useful co-curricular activities, providing proper guidance through negotiated settlement with the stake holders, we have to understand the level of the students, getting rid of common and standardized tests, by keeping constantly in touch with the employers to improve the assessment, developing skills needed to fulfill certain tasks in the workplace, specifying contents that are based on the needs of employers, we need to revisit the course content, teaching approaches and the traditional assessment patterns at all levels and the assessment should be based on real life situations. Let us decide it collectively and introduce the internship courses, e.g. ESP, develop confidence in the students by inculcating the required abilities to meet the demands of the labor market. Management and administration has to provide required facilities to the teachers so that students can be trained to meet the expectations of the society. Obviously, existing assessment patterns can also be transformed to meet the demand of the employers.

**7.3 EFL Learners' Questionnaire cum Opinionnaire:**

There are 25 questions (18 close ended with the option of ‘Yes’, ‘No’ and ‘To some extent’, and 7 open ended questions). The open-ended questions are to collect maximum information based on EFL learners’ real experiences in their classroom.

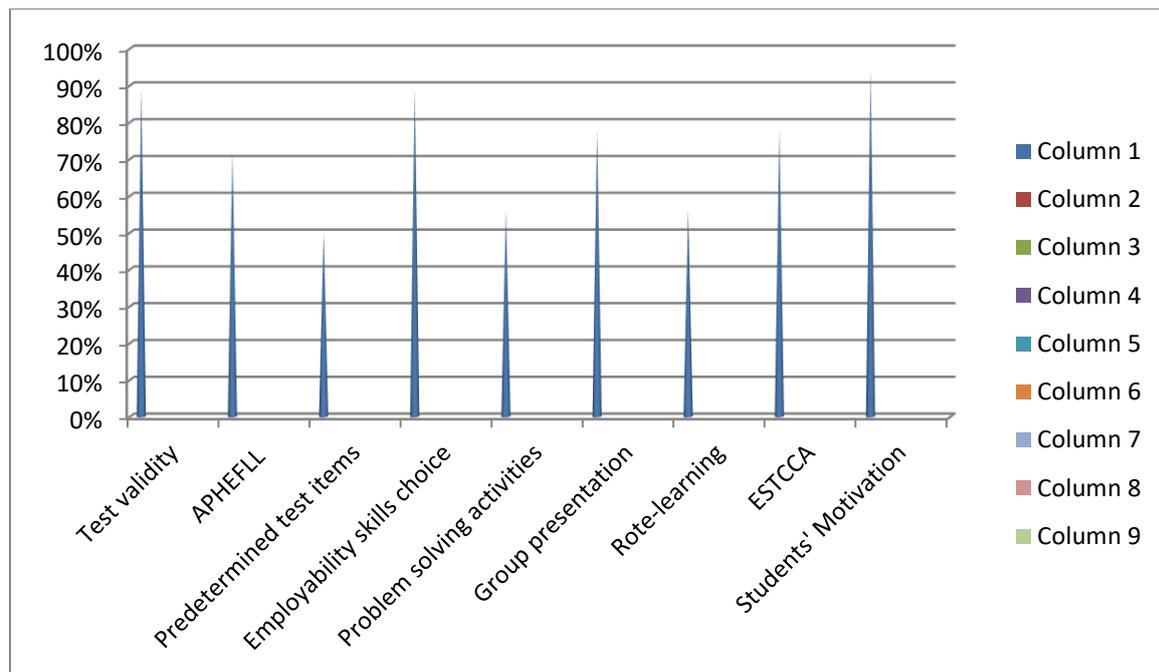
**Table-3 EFL Learners’ Questionnaire cum Opinionnaire**

S/No	Question	Responses		
		Yes % age	No % age	To some extent % age
1	Do you think the test items in the EFL formative and summative assessments are valid (means fulfill the aims of testing EFL learner’ skills and competency)?	89	-	11
2	Are the test items in your formative and summative assessments the same?	33	33	33
3	Do the assessment patterns harness (control) your EFL study and preparation for examinations?	72	-	22
4	Are you prepared by the English instructor only for the predetermined and fixed test items?	50	27	22
5	Are you free to make a choice for some activities that may help developing your employability and life skills?	89	-	11
6	Are problem solving activities and assignments common in your classroom?	56	-	38
7	Do students’ groups present some topics in classroom?	78	11	11
8	Are you satisfied with your classmates’ interest and teamwork in preparation of classroom presentation?	67	11	22
9	Do you and your EFL classmates accept all challenging assignments cheerfully?	56	22	22
10	Are you familiar with the importance of soft skills?	67	-	28
11	Are you satisfied with the traditional ways of assessments?	61	-	39
12	Do you think the ‘Peer Assessment’ is useful for developing EFL learners’ confidence and creativity?	61	-	33
13	Would you like the idea of students’ ‘Self-Assessment’ in EFL classroom?	56	27	16
14	Do you think EFL is being taught and assessed as a subject rather than a language?	39	44	17

15	Are all EFL skills covered in your formative and summative assessment?	61	17	22
16	Do you attempt your EFL assessment tests through your cramming and rote learning and not with critical thinking?	56	22	22
17	Do you think that your employability skills can be developed through co-curricular activities?	78	-	16
18	Are you as an EFL student well motivated to be competent in the use of tangible and intangible skills for your bright future?	94	-	4

### Table-3 Analysis:

Majority of the students' perception is that their formative and summative assessments are valid for testing their skills and competency. The EFL assessment patterns harness students' learning and preparation for the examinations. Some of the predetermined test items are generally focused by the EFL teachers. The EFL learners are free in making choices to develop certain employability skills. Problem solving activities and assignments are common in the EFL classrooms. Students present some EFL topics in the classrooms. The EFL learners are more or less satisfied with their classmates' interest and teamwork. The students claim that they accept challenging assignments cheerfully. The students like peer-assessment and self-assessment to develop confidence and creativity. The EFL learners are of the view that they can develop employability and life skills through co-curriculum activities. The EFL learners are well-motivated to be competent in the use of tangible and intangible skills for their bright future. Furthermore, bar-chart reflecting the most distinctive views of the EFL learners has been developed for a quick view as under:



**APHEFLL** (assessment patterns harness EFL learning)

**ESTCCA** (Employability skills through co-curriculum activities)

**Responses to Open Ended Questions (Section-B, 19-25):**

**Q-19: What are the most common test items in EFL assessments: Subjective, Objective or Mixed one?**

The majority is of the view that the mixture of subjective and objective questions exists everywhere.

**Q-20: Your subjective assessment items include (you have to write down):**

Subjective items include paragraph, short and long answer, essay, problem-solving activities.

**Q-21: Your objective test items generally include (You have to write):**

Objective items include multiple-choice, true-false, matching and completion. Students love objective questions because they are a bit easy to answer.

**Q-22: What are the other test items that you would like to include in your formative and summative assessment of EFL that may add to your confidence toward using English in real life-like situations?**

There must be live listening tests, with several stages such as fill in the blank, choose the correct answer, in order to improve the English as a foreign language. The students' active participation in the process of EFL teaching-learning is vital to build their skills. Moreover, the role play and going on little trip to a foreign language environment such as some restaurants and companies to interact with them may prove more fruitful.

**Q-23: What type of activities and assignments are common in your classroom?**

At the end of a lecture, question-answer session, writing activities, and discussion on the shared topic, are common.

**Q-24: What does restrain you back from developing the most wanted employability and life skills during the EFL learning process? Please comment on whatever you experienced so far.**

In fact time and financial constraints are there. In a specific time both the teacher and students have to complete the predetermined content of the course. Then family problems, lack of motivation and determination, leave the least chance to go for employability skills.

**Q-25: How can we transform the existing assessment patterns into the prevailing demand of the employers? Please give some suggestions.**

The students are of the view that nothing is impossible. If we are determined at all levels, the existing situation can be improved through certain reformations.

## **8. Conclusion**

In the light of a detailed view of the hypothesis, research questions, objectives, data collection and data analysis, the researcher concludes the present study that the positive, well thought and well-planned reforms in the EFL teaching approaches and assessment process is a key to develop overall employability and life skills. The EFL learners' critical thinking, creativity and problem-solving skills must be focused and maximized. On the other hand rote-learning should be minimized. Teacher is an actor, he needs exploiting the course content whatever and classroom situations to develop the most wanted real-life EFL skills. A thorough washback, i.e. the evaluation of assessment process is inevitable in 21<sup>st</sup> century.

The goal of the English language learning was, is and will be the development of communicative competence and performance of the learner in real-life-like, ever changing and challenging situations. The EFL assessment and tests have to focus on measuring the learner's communicative skills to decode and encode a meaningful message in different contexts. Teachers believe that teamwork, confidence, communication, creativity and problem solving are the top skills and competencies, developed through extra-curricular activities. Other activities during the school day, such as interacting with peers, support the development of communication and teamwork skills.

How does assessment influence teaching? Assessment affects decisions about grades, placement, advancement, instructional needs and curriculum. Changes in the skills-based knowledge, our students need new learning goals; these new learning goals will change the relationship between assessment and pedagogy. The critical thinking and problem solving activities and assessment are known to have a positive impact on the quality of students' learning outcomes. Finally, assessment can be viewed as being a means of helping students to learn; a way of reporting on student progress, and a way of making decisions about teaching. Despite sincere efforts, the information collected through the research tools used in the present study or some other similar studies, may not be generalized or guaranteed due to lack of validity and reliability; for, all EFL faculty, EFL learners in different communities may hide the reality just to cover their weak areas. However, a complete but positive washback or backwash, i.e. evaluation of evaluation (assessment) is inevitable to ensure EFL output that may compete in the international labour market for various projects management.

## **9. Suggestions**

In the light of the collected data, its analysis and conclusion the researcher suggests some sincere, revolutionary steps and not just commentary (as action speak louder than words) on the part of the stakeholders for the uplifting of the present level of knowledge, skills and competency of the EFL learners that meet the ever growing demands of the 21<sup>st</sup> century employers and international labour market as follows:

- (a) A comprehensive evaluation of the existing level of EFL assessment, teaching approaches and curriculum,
- (b) A valid and reliable survey of the demand and employability skills required by the employers,

- (c) Fill in the yawning gap between the existing level of EFL learners' standards and the most wanted employability and life skills,
- (d) The EFL learners should be motivated to go for knowledge, skills, competency and values and not just for good grades only.

## **10. Recommendation**

Further and regular research in the specific areas of the present study is recommended for better future of the EFL learners toward employability and life skills because the EFL teaching and learning is not as simple as to pass the exams with good grades. The research on the language 'use' instead of its 'usage' only, would be highly appreciated.

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## Appendix-A

### Questionnaire cum Opinionnaire for EFL Faculty at graduation level

#### **Topic: ELT Assessment Patterns Dictate Teaching-Learning Approaches: A Hindrance to Map out Employability and Life Skills**

Name: \_\_\_\_\_ Last Degree: \_\_\_\_\_

Specialization: \_\_\_\_\_ Subject teaching experience: \_\_\_\_\_ Years

Email id: \_\_\_\_\_

Note: Kindly respond to the questions reflecting your valuable real experience for the EFL better future. This is a contribution to develop employability and life skills in our EFL learners. Well thought responses are requested.

### Section-1

Q.No.	Question	Yes	No	To some extent
1	Do you ensure validity of the test items in the EFL formative and summative assessments?			
2	Are the test items in your formative and summative assessment the same?			
3	Do the assessment patterns harness your teaching approaches?			
4	Do you prepare your EFL learners for the predetermined and fixed test items?			
5	Are you free to make a choice for some test items/activities that may help developing employability and life skills?			
6	Are problem solving activities and assignments common in your classroom?			
7	Do students' groups present some topics in classroom?			
8	Are you satisfied with the students' interest and teamwork?			
9	Do your EFL students accept all challenging assignments cheerfully?			
10	Are your students familiar with the importance of soft skills?			
11	Are you satisfied with the traditional ways of assessments?			
12	Do you think EFL learners' 'Peer Assessment' is useful for developing their confidence and creativity?			
13	Would you like to introduce the idea of students' 'Self-Assessment' in EFL classroom?			
14	Do you think EFL is being taught and assessed as a subject rather than a language?			
15	Are all EFL skills covered in formative and summative assessment?			

16	The students attempt their traditional EFL assessment tests through their cramming and rote learning and not as creative writers using critical thinking. Do you agree?			
17	Do you think that employability skills can be developed through co-curricular activities?			
18	Are your EFL students well motivated to be competent in the use of tangible and intangible skills for their bright future?			

## Section-2

19. What are the most common test items in EFL assessments?

Subjective \_\_\_\_\_ Objective \_\_\_\_\_ Mixed one \_\_\_\_\_

20. Your subjective assessment items include:

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

(e) \_\_\_\_\_

(f) \_\_\_\_\_

21. Your objective test items generally include:

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

(e) \_\_\_\_\_

(f) \_\_\_\_\_

22. What are the other test's items that you would like to include in formative and summative assessment of EFL?

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

(e) \_\_\_\_\_

23. What type of activities and assignments are common in your classroom?

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

(e) \_\_\_\_\_

24. What does restrain you back from developing the most wanted employability and life skills in the EFL teaching? Kindly comment whatever you experienced so far.

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25. How can we transform the existing assessment patterns into the prevailing demand of the employers?

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## Appendix-B

### Questionnaire cum Opinionnaire for EFL Learners at graduation level

#### Topic: ELT Assessment Patterns Dictate Teaching-Learning Approaches: A Hindrance to Map out Employability and Life Skills

Name: \_\_\_\_\_ Id: \_\_\_\_\_

Level: \_\_\_\_\_

Note: Kindly respond to the questions reflecting your valuable real experience in the classroom, for EFL better future. This is a contribution to develop employability and life skills in our EFL learners.

#### Section-1

Q.No.	Question	Yes	No	To some extent
1	Do you think the test items in the EFL formative and summative assessments are valid (means fulfill the aims of testing EFL learner' skills and competency)?			
2	Are the test items in your formative and summative assessments the same?			
3	Do the assessment patterns harness (control) your EFL study and preparation for examinations?			
4	Are you prepared by the English instructor only for the predetermined and fixed test items?			
5	Are you free to make a choice for some activities that may help developing your employability and life skills?			
6	Are problem solving activities and assignments common in your classroom?			
7	Do students' groups present some topics in classroom?			
8	Are you satisfied with your classmates' interest and teamwork in preparation of classroom presentation?			
9	Do you and your EFL classmates accept all challenging assignments cheerfully?			
10	Are you familiar with the importance of soft skills?			
11	Are you satisfied with the traditional ways of assessments?			
12	Do you think the 'Peer Assessment' is useful for developing EFL learners' confidence and creativity?			
13	Would you like the idea of students' 'Self-Assessment' in EFL classroom?			
14	Do you think EFL is being taught and assessed as a subject rather than a language?			
15	Are all EFL skills covered in your formative and summative assessment?			
16	Do you attempt your EFL assessment tests through your cramming and rote learning and not with critical thinking?			

17	Do you think that your employability skills can be developed through co-curricular activities?			
18	Are you as an EFL student well motivated to be competent in the use of tangible and intangible skills for your bright future?			

## Section-2

19. What are the most common test items in your EFL assessments?

Subjective \_\_\_\_\_ Objective \_\_\_\_\_ Mixed one \_\_\_\_\_

20. Your subjective assessment items include:

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

(e) \_\_\_\_\_

(f) \_\_\_\_\_

21. Your objective test items generally include:

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

(e) \_\_\_\_\_

(f) \_\_\_\_\_

22. What are the other test's items that you would like to include in your formative and summative assessment of the EFL that may add to your confidence toward using English in real-life-like situations?

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(c) \_\_\_\_\_

(d) \_\_\_\_\_

- (e) \_\_\_\_\_
23. What type of activities and assignments are common in your classroom?
- (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_
- (d) \_\_\_\_\_
- (e) \_\_\_\_\_
24. What does restrain you back from developing the most wanted employability and life skills during EFL learning process? Please comment whatever you experienced so far.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
25. How can we transform the existing assessment patterns into the prevailing demand of the employers? Please give some suggestions.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_