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Foreword

Welcome to the Asian EFL Journal Volume 28 Issue 3.1 2021. In this edition we present papers from Saudi Arabia, the Kingdom of Bahrain and Jordan. It is worth noting that less than 5% of papers submitted for publication in fact make it through the various screening processes. This also suggests there is a rising global demand by authors who research areas of SLA but find difficulty in reaching an outlet where their research can be reviewed. It is suggested that university administrators and governments consider this when setting milestones that academics must reach in order to be considered for promotion or advancement or job interviews. Assuming our statistics represent a fair cross section of SLA journals, then it is clear the profession as a whole need to look to this imposing barrier and demand that is being burdened on the academic journals, many of which are run on a voluntary basis. It is also worth noting that authors are demanding SCOPUS indexed journals, however many new excellent journals, including some in our stable are being rejected and there is no SCOPUS. It is clear as this trend continues, huge demand, small supply, fees will increase dramatically -as running journals is a very very expensive proposition with multiple layers of humans needed to get a paper from first review to publication.

In the first paper, Understanding the Use of Academic Word List (AWL) in EFL Academic Writing, Chintalapalli Vijayakumar and Shakul Tewari's paper focuses on the use of AWL words in student writing in the Kingdom of Saudi Arabia. Using the freely available online tools such as English Vocabulary Profile and AntConc tools, they demonstrate a method of analysing a learner corpus of academic writing (LCAW) for form, meaning, and use aspects of word knowledge. Corpus based pattern analysis of students' essays revealed that the productive use of collocations, patterns and meaning senses of the AWL words in their writing requires considerable improvement. This paper suggests that teachers should focus on providing extended practice for vocabulary on EAP courses, particularly by exposing them to a wide range of examples from different disciplines through corpus-based concordances. It also suggests that tests of academic vocabulary should focus on both receptive and productive aspects.

In the second paper by Aseel Alshbeekat and Sharif Alghazo, entitled *A Functional-Pragmatic Analysis of Pragmatic Markers in Spoken Learner English*, the authors examine the use and functions of textual and interpersonal English pragmatic markers (PMs) as used by Jordanian university students. Their study revealed that textual PMs were more commonly used as compared to interpersonal PMs. With respect to the use of textual and interpersonal PMs in relation to gender, the study revealed no significant differences among male students and female students and this presents implications for interlanguage pragmatic studies in terms of second language learners' use of PMs in discourse. The third paper is titled *Students as Partners in Learning and Teaching: Assessing the Effectiveness of Student Evaluation of Teaching* by Dr. Rajeeb Kumar Sah. Student Evaluation of Teaching (SET) could provide an opportunity to coproduce and develop effective teaching and learning strategy for sustainable education in universities. However, the researcher notes poorly designed questionnaires with an inherent inability to reflect students' perceptions and expectations in the SET fail to fulfil the real purpose of the SET. This action research used a revised SET questionnaire based on the discussions with the lecturers and the students within a university setting to understand their expectations and engagement in completing the questionnaires. Recommendations to include students as purposeful partners in the process are presented.

Pedagogy in Post-COVID-19: Effectiveness of Blended Learning in Higher Education is the fourth paper and is presented by co-authors Kalaichelvi R and Jayendira P Sankar. Their research follows the new normal under Covid19 life with the research objective being to study the relationship of eight independent factors: direct instructions, focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform on effective blended learning in higher education after COVID-19 pandemic. This study plays a vital role in future research by enabling a deeper understanding of blended learning and developing a relevant approach to planning and implementing blended learning with optimal face-to-face instruction and online teaching.

The fifth paper is *Contextual Understanding of Vocabulary - A Heuristic Approach Aided by Modern Technology* authored by Mary Syrha Goveas from the University of Bahrain. The study was designed to explore the vocabulary skills of pre-service teachers of the English Methodology in learning through the use of both visual and auditory channels using a heuristic mobile application, Metaverse Studio. One of the main aims of the research was to determine the impact of a heuristic approach using a mobile application (Metaverse Studio) on the

acquisition and learning of vocabulary using a specific context to introduce the words. The research showed that Metaverse Studio application is not only useful for teaching and learning vocabulary, but can also be used for other language skills such as grammar concepts, listening tasks, and also for reading comprehension. Goveas notes, a heuristic approach aids autonomous learning, and autonomous learning is a very much needed life skill. In the next paper, *Assessment of 21 Century Skills & Academic Literacies: From Theory to Practice*, Poonam Anand and Starr Ackley from BTC, University of Bahrain. and this article extends beyond the research community into the domains of professional employment, and government planning for human capital development to support a knowledge economy. The authors have initiated a dialogue that will allow communities to question reliance on standardized examinations that do not measure the characteristics of a knowledge economy workforce, and to explore how they may allocate resources that encourage development of these characteristics through appropriate alignment of assessment with desired human capital outcomes.

We trust you find the research in this edition beneficial to your own research work.



Understanding the Use of Academic Word List (AWL) in EFL Academic Writing

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Abstract

Academic Word List is a widely used EAP tool. The most frequently used AWL has enabled many researchers to produce discipline specific academic word lists and formulaic lists. Many researchers have, in fact, studied the use of AWL words across academic disciplines, while fewer studies have focused on students' use of AWL in academic writing courses. With the help of a learner corpus of academic writing (LCAW) which was collected over a period of

three years from the undergraduate preparatory year students in Saudi Arabia, we have attempted to understand the use of AWL words by the EFL undergraduate students for form, meaning and use aspects of word knowledge using three freely available tools: AntConc corpus analysis tools, Tom Cobb's Compleat Lextutor, and Cambridge English Vocabulary Profile. For the first time, we have applied John M Sinclair's model of lexical unit with Ken Hyland and Douglas Biber's classification of bundles to describe the use of AWL words. Results revealed that students' frequency of use of AWL gradually declined from sublist 1 to 10 while the patterns and associative meaning senses mostly were within the B1 and B2 CEFR levels. Besides, the study also found that EFL students barely used collocations that typically occur within specific thematic contexts.

Keywords: *Academic word list, learner corpus, word knowledge, academic writing, lexical patterns*

1 Introduction

For many undergraduate students in the Kingdom of Saudi Arabia (KSA), transitioning from Arabic medium to English medium education represents a challenge as their academic language proficiency in English is inadequate to cope with higher education demands. To help such students make the transition, the Preparatory Year Programs (PYP) (the first year of undergraduate program at the university) offer EGAP as well as ESAP courses emphasizing vocabulary learning. Students are typically required to take high-stakes norm-referenced English language tests which determine a student's eligibility to study the specialized programs such as medicine, engineering, and dentistry.

Among other aspects of academic language, EAP courseware stresses the learning of AWL words through various context-dependent and context-independent activities such as match the meaning, complete the sentences with AWL words from the reading, match the definition, word-formation exercises, and cloze passages (Addullateef & Amer, 2020; Alhadih, 2021; Alhusban & Torki, 2021). Although the classroom activities aim at exposing the students to diverse academic genres—description, cause-effect, and argumentative—to provide intensive practice for specific lexical and grammatical choices (Alkhatih, 2021), it is not clear whether the students are able to use the academic vocabulary (in this context AWL words) effectively in their writing. Although the existing measures of academic vocabulary help teachers

determine students' vocabulary size, they do not offer insights into how the students actually use them in their writing.

This article reports on a cost-effective procedure which can be employed systematically to understand students' productive use of AWL words in learner writing. Using the freely available online tools—AntConc Corpus analysis tools (Anthony, 2020), Tom Cob's Compleat Lextutor (Cobb, 2020), and Cambridge's English Profile (Cambridge University Press, 2020)—the use of AWL words in a learner corpus of writing is explored. Based on the construct of word knowledge provided by Paul Nation (2001) for *form*, *meaning*, and *use* aspects, this study attempts to provide a comprehensive picture of the productive use of AWL words through the study of a learner corpus of writing portfolios (4-5 paragraph essays).

2 Review of Literature

2.1 Pedagogic Word Lists for Academic Purposes

Notwithstanding the resistance for greater specificity in terms of the lexico-grammatical features specific to genres and disciplines (Ha & Hyland, 2017; Hyland & Tse, 2012), scholarly attention is ever-growing on academic purpose vocabulary because of its potential to create coherent rhetoric (J. Flowerdew, 2015; L. Flowerdew, 2015). Using criteria such as frequency, dispersion, meanings, and pedagogic salience (Coxhead & Demecheleer, 2018; Dang et al., 2017; Valipouri & Nassaji, 2013) two types of word lists have been published for academic purposes: a) *common core word lists* which represent a “shared vocabulary of several fields of study” (Coxhead, 2011), and *specialized word lists*, which serve the discipline-specific vocabulary needs (Li & Qian, 2010; Liu & Han, 2015). The pedagogic rationale behind publishing such word lists is that learning those words or word families would enable the readers as well as writers accomplish a range of tasks within and across a wide range of academic disciplines.

Research has shown that around 8% to 10% of the running words in an academic text are “context-independent” common core items which are essential in the meaning-making process (Dang & Webb, 2014; Hsu, 2018; Ming-tzu & Nation, 2004). In addition to having multiple meaning senses and a wide range of context-sensitive collocations, many of the academic words such as *issue*, *demonstrate*, *convention*, *scheme*, and *physical*, are salient in academic texts, and have the potential to systematically weave ideas together in complex and genre-specific phraseological patterns, which together constitute the schematic structure of a text (L. Flowerdew, 2015). Even though the density of discipline-specific technical lexical

items is typically higher than those sub-technical words in a normal authentic academic text, it is these sub-technical words that are found to cause comprehension and production problems for many EFL and ESL learners. These dimensions make them indispensable resources in academic language courses.

2.2 Measuring Vocabulary Knowledge

A ‘precise measure of vocabulary knowledge’ (Webb, 2004) should be comprehensive enough to cover as many dimensions of word knowledge as defined in vocabulary research (Chung & Nation, 2004). Among other aspects of receptive and productive knowledge, *form*, *meaning* and *use* dimensions are considered critical. Although assessing learners’ ability to overcome comprehension challenges posed by lexical items, such as academic or sub-technical words (Hsu, 2014), is as important an exercise as designing discipline-specific word lists, it is even more significant to understand their productive use in contextually appropriate ways, given the fact that a student’s success on university academic programs is mostly determined by academic writing or speaking tasks (Durrant, 2016; Nesi & Gardner, 2012). While the publication of corpus-based word/formulas lists, such as AWL (Coxhead, 2000), AVL (Gardner & Davies, 2014), and AFL (Simpson-vlach & Ellis, 2010), have been instrumental in the development of various measures of vocabulary knowledge, only a select sample of these word lists from different frequency levels was used in the design of tests (Pecorari et al., 2019). Moreover, these tests tend to measure vocabulary knowledge—size, depth and breadth, and productive use—mostly through discrete items.

While some of them focused on the receptive vocabulary knowledge covering a wide range of frequency levels (up to 14k) (Cobb, 2013; Morris & Cobb, 2004) for diagnostic and placement purposes through word recognition tests, word definition matching vocabulary size tests (Nation, 2001), and word association tests (the tests are available at < lextutor.ca/tests/ >), other measures, concerned with the productive ability to use words in context, aimed at productive vocabulary growth through controlled productive levels test (CPVT) (Laufer & Nation, 1999).

Among other measures, the controlled productive vocabulary test (CPVT) required the test-takers to read meaningful sentence-level instances and complete the partially provided target words. Modelled on the Vocabulary Levels Test, this test drew its target words from each of the 2000, 3000, 5000, University Word List (UWL), and 10,000 word levels. The UWL constituted the academic vocabulary segment. Similarly, the Vocabulary Knowledge Scale (VKS), a discrete, selective vocabulary test with words presented in isolation, needed the test-

takers to self-report their knowledge of each word on a five-point scale, explain in writing the meaning, and compose a sentence using the word (Paribakht & Webb, 2016).

David Singleton's discrete and selective *C-Test* (Read, 2000), however, relied on a series of short texts to measure the productive vocabulary knowledge. Similar to CPVT, the C-test, deleted a part of the target word, and the test-takers were to fill out the missing half of the word: It was 'a more integrative measure that requires learners to restore partial deletion in a series of short texts' (Read, 2000).

Although these popular measures of vocabulary knowledge estimated a student's recall ability of the select target words, they did not report on the actual use of vocabulary at the level of a text. In discrete measures, the aspects to be tested—register, collocations, meanings, grammatical patterns—were controlled and predetermined. Furthermore, the target words were provided in parts for the test-takers to make predictions. Also, the textual considerations such as the selection and use of lexical items based on their genres were not emphasized. In fact, the co-textual configurations such as collocations and patterns were provided to facilitate the guessing of the target words and their forms. This provision to pieces of information would facilitate the process of guessing if the learner had been exposed the target word for a few times (Crossley et al., 2013).

2.3 Understanding the productive use of AWL words: A Model

2.3.1 Form

The student essays were fed to *AntConc* software to generate the word list. Later, the generated word list was reorganized in the alphabetic order to cluster word families in one place. To identify different members of a word family, the Oxford Learner's Dictionary of Academic English (OLDAE) (Oxford University Press, 2014) was consulted. Manually each lemma and its associative family members were counted and organized by their frequency of occurrence under the ten sub-lists of the AWL words. Concurrently, to generate a lexical profile of the texts for general and AWL words, 63 random texts from the corpus were analyzed using the *vocabprofile* tool of the *Compleat Lextutor*.

2.3.2 Meaning(s), patterns and Use

With the help of the Oxford Learner's Dictionary of Academic English (Oxford University Press, 2014) and English Vocabulary Profile (Cambridge University Press, 2020), the AWL words with at least 20 instances in the corpus were examined for contextual meaning(s). CEFR-based Cambridge English Vocabulary Profile (EVP) organized the different meaning senses in the order of learning into six levels—A1, A2, B1, B2, C1 and C2. These levels highly

correspond with Nation's (2001) scale descriptions in terms of accessibility and specialized meanings. When we analyzed concordances for each word, it was possible to understand what the students did know.

CEFR levels are assigned not just to the words themselves, but to each individual meaning of these words. So, for instance, the word *degree* is assigned level A2 for the sense TEMPERATURE, B1 for QUALIFICATION, B2 for AMOUNT and C2 for the phrase *a/some degree of (sth)*. The capitalized guidewords help the user to navigate longer entries, and phrases are listed separately within an entry.

The co-text in the concordances was useful in determining the patterns as well as the meanings of the AWL words. Using this CEFR's classification scale, the most frequently occurring meaning senses and their respective CEFR levels along with the patterns were determined.

2.3 Patterns and Collocations

It is important that students should be guided to not only learn register specific vocabulary items but also the collocations and patterns that typically represent the discourse communities. Patterns are strings of words which are regularly associated with the word that help us determine the meaning(s). These combinations usually occur with high frequency, and specific meanings are associated with them. An investigative procedure that is usually used to identify the patterns associated with words is called *concordancer*. Concordances identify, arrange, and display all the instances of use for a given word in a given corpus.

2.4 Sinclair's model of extended units of meaning (EUM)

The central principle of units of meaning is co-selection (Bernardini, 2004; Gray & Biber, 2013; Paquot & Granger, 2012; Sinclair, 2004). This can be demonstrated through an example. When we read the following concordances for the word **pang** both vertically and horizontally we tend to observe certain recurrent patterns (such as pang+ adjective) associated with the word 'pang'. In each of the randomly selected mini-concordances from the COCA (Davies, 2020) the key word is **pang**. There are about 1417 instances or examples available for the word *pang*. These instances (examples) are drawn from different registers such as *magazine*, *spoken* and *academic*. An examination of the following statistics reveals that this word is frequently used in the register 'fiction'.

Table 1. *Frequency of use of the word 'pang' across registers in COCA*

Spoken	Fiction	Magazine	Newspaper	Academic
24	1093	102	91	95

Out of the 1417 instances available in the corpus around 1093 examples were found in the register *fiction*. The remaining examples account for a relatively a small number compared to

its occurrence in fiction. It thus shows that the word *pang* is often used in *fiction* than in the other registers. If we examine carefully these lines we observe a pattern

feel + a + pang + of + (guilt/regret/pain/sadness/grief/envy).

a + pang + of + memory (stabbed, echoed)

It can be observed from the contexts that

- a. the meaning(s) associated to this pattern as well as the word *pang* is often related to some kind of ‘pain’;
- b. which is usually ‘felt, remembered, experienced...’ and can be caused by ‘guilt, consciousness, envy, disappointment...’

*(felt a sharp **pang** of... envy, I felt a **pang** of guilt, Vern felt a **pang** of regret, he felt a **pang** under his ribs...)*

The word *pang* seems to generally associate itself with words which express ‘a sense of sadness’ and not with words that express ‘a sense of happiness’. These units also reveal the fact that the co-selection is not random: *feel + pang* is the usual pattern. According to Sinclair (Moon, 2008; Sinclair, 2004) each unit of meaning has four obligatory parameters: *collocation*, *colligation*, *semantic preference* and *semantic prosody* (Stubbs, 2009). They together aim to describe the surface structure to the implied functions of these combination. Corpus linguists explore individual and independent words to discover the constituents that conjoin to form a unit of meaning. The word being explored is the central and obligatory node, and the constituents, most frequent to less frequent, on either side of the node are ‘collocates’. These constituents can be from both closed sets and open class words. If the node highly collocates with a grammatical word (past participle, prepositions, quantifier...) then the co-occurrence is referred to as ‘colligation’ (Stubbs, 2009). In the above example the node ‘pang’ collocates with *pain*, *suffering*, *regret* among others.

Depending on text-types the syntagmatic combinations of the node are studied for semantic preferences such as *regret*, *pain*, *sadness* (all of them belong to the semantic group called emotions that refer to ‘unhappiness’). However, the preference for a specific collocate, for instance *regret*, in a specific context is determined by the purpose of communication or the intention of the user. This notion is defined as ‘semantic prosody’. This concept was discussed by Sinclair (1991, p. 74) in detail. He examined the collocational behaviour of the phrase *set in* and noticed that the semantic associates of this notion generally refer to “unpleasant states of affair”. Succinctly put, the semantic prosody enables us to be vigilant to the selection preferences of a specific combination as either desirable or undesirable in specific communicative contexts. Each node tends to collocate with a range of words. The most

frequent words tend to also have a wider range than the less frequent. The use of a specific collocate in a corpus provide us with evidence, which needs to be interpreted manually for collocations and prosody (Stubbs, 2009). Hence it is generally texts and purposes that guide the selection of specific units of meaning.

2.5 Lexical Bundles

Biber's (Biber & Barbieri, 2007; Shin, 2016; Staples et al., 2013) and Hyland's (Hyland, 2008b; Liardét, 2018) framework for identifying lexical bundles in spoken and written registers has significant implications for AWL. Their classification of bundles into *research*, *text* and *participant* oriented bundles has been used here to classify the frequently used patterns of AWL (*a lot of benefits* as Research-oriented quantification bundle, *I will focus on* as Participant-oriented stance/engagement bundle) into functional bundles. This was mainly embedded into analysis scheme to understand the functional role of the context-independent AWL words in student academic writing. Perhaps, not all the bundles might fit into this neat classification or within these three categories—especially when we exclude collocations from the description of bundles—, we believed this approach would be more feasible to identify the functional role of these common core vocabulary items in student writing (Gilquin et al., 2007; Paquot & Granger, 2012; Tribble & Wingate, 2013; Tribble, 2011).

2.6 Research Questions

Because of their reliance on specific methods (quantitative estimates based on select and time-bound response) and certain item-types (sentence or paragraph level cloze item-types, self-rated checklists, teacher judgements, definition matching tests, and scales), it was not easy to understand student vocabulary knowledge. By examining a corpus of student writing, however, we will be able to understand better their natural tendency toward using the different aspects of AWL words, such as:

- a. the frequency of different words and word forms and thereby
- b. the meaning senses usually the words represented and their levels,
- c. the collocations,
- d. complex phraseological patterns.

Keeping Paul Nation's comprehensive word knowledge construct of *form*, *meaning*, and *use* in mind a framework has been devised to understand student writing in terms of the use of AWL words. The following research questions served as a guide to accomplish the goals:

Research Questions	Data	Instruments
What are the most frequently used AWL words in advanced EFL learner's essay writing?	Descriptive statistics and frequency of occurrence	<i>AntConc</i> Corpus analysis tools <i>Compleat Lextutor</i> Oxford Learner's Dictionary of Academic English
How did the advanced EFL students use the AWL words, in terms of their form, meaning and use aspects, in their take-home written essays?	Qualitative	Oxford Learner's Dictionary of Academic English <i>AntConc</i> concordancing tools English Profile

3 Methods

3.1 The Context of Research

The corpus of student writing has been collected from the advanced Preparatory Year undergraduate students at a Saudi University, who studied the general and specific purpose academic English courses during the academic years 2016-2019 (3 academic years). All the learners who submitted the essays were at the B1 level of IELTS. Those students whose proficiency was certified to be at B2 could choose to drop out. Those students registered on the PYP program had to study a 32 weeklong (12 hours a week) intensive EAP program which consisted of two core English courses: General and level-specific integrated EAP course called *Oxford Q: Skills for Success* (Books 3, 4, and 5) and a discipline specific vocabulary-based EAP course of academic reading and writing. While the year-long general academic course typically organized the content into themes, genres, micro level lexico-grammatical choices (Daise & Norloff, 2016), the semester-long discipline specific EAP course materials relied on sub-technical texts drawn from various sources such as blogs, magazines and excerpts from internet that dealt with the themes and lexis of the disciplines students will pursue after their preparatory year.

3.2 Teaching EAP Courses

The nature of in-class exposure, particularly the AWL words, was largely dependent on the select themes and genres. Specific aspects of word knowledge such as derivative word forms, pronunciation and stress, collocations, and context-specific meanings were usually emphasized. Additional online practice for grammar and vocabulary was offered asynchronously through Black Board and university's LMS. Although the sum of the experiences embedded in the course materials might not have covered explicitly all the aspects

of word knowledge, the course materials strategically highlighted all the AWL words and enabled noticing through pre-reading glossaries and practice activities (Daise & Norloff, 2016).

3.3 Methods and Instruments

Importantly, the corpus compiled for the purpose comprised of the essays submitted as part of writing portfolio assignments after at least 25 weeks of instruction. A total of 534 4-5 paragraph essays written by 24 different groups of students were analyzed for the study. Although the number of submissions was much higher than the essays analyzed, only those essays that have fulfilled the criteria set out for the study were considered.

3.4 Learner Corpus of Academic Writing (LCAW)

As mentioned above, the learner corpus consisted of 534 take-home written assignments of four/five-paragraph essays of *argumentative*, *opinion*, *compare-contrast* and *cause-effect* genres. Toward the end of second semester of every academic year, the writing task was posted on the university's LMS, Black Board. All instructors were advised to choose a specific topic and edit the topic part without changing the genre in focus. However, the teachers were given at least two genre options to choose from.

Students were given three to four weeks' time to upload the completed take-home assignment on the Black Board. Since the task was a take-home assignment, they had the liberty to consult useful materials and resources. Except in a few cases, no hard copy submission was accepted.

The process of compiling the learner corpus used the following criteria:

- a. the essays should come from only the advanced groups of students whose L1 was Arabic (based on the entry-level placement test administered by the National Center for Assessment (NCA));
- b. they should have been submitted only at the end of the academic year;
- c. they should have a minimum of four paragraphs;
- d. they should report, based Black Board plagiarism checker, less than 5% plagiarism.

Following McEnery and Hardie (2011)'s advice a representative corpus was compiled: All the texts were written by students who shared the same L1, belonged to the same proficiency level, and studied the courses that formally taught AWL words.

Argumentative/ Persuasive	Opinion	Compare and Contrast	Cause Effect	-
174	78	164	118	

3.5 Tools

The tools we have used in the study are available for free use. For corpus analysis we have used the *AntConc* software (Anthony, 2020), an integrated suite of corpus analysis tools that help researchers identify lexical items by their frequency of occurrence, keyness, in addition to identifying collocations and clusters. To identify and classify the AWL words as used in individual texts, Tom Cobb's *Compleat Lextutor* (Cobb, 2020) was used: *Lextutor* organizes lexical items according to their frequency of occurrence into GSL and AWL words. The English Vocabulary Profile (EVP) (Cambridge University Press, 2020) offers teachers reliable information about words and phrases, their meaning senses according to CEFR proficiency levels, collocations. and examples from a learner corpus.

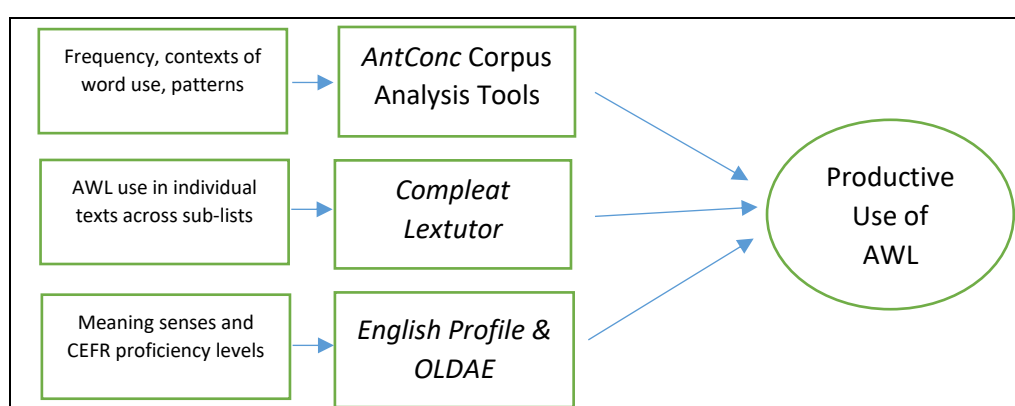


Figure 1. Process of understanding the productive use of AWL in learner writing

4 Data Analysis

4.1 Form

Research has shown that around 80% of a running texts is made up of the first 2000 most frequently used words or West's general service list (GSL) and at least 10% of an academic text contains AWL words, with a few exceptions such as botany and business registers (Tongpoon-Patanasorn, 2018). In case of EFL emergent writing, this operating margin (80%) against the normal ranges would normally be expected to be higher for the most frequently used 2000 words while it would be less for the AWL. It means there would be more words from GSL as the productive vocabulary size of EFL learners would be limited to a few thousand words (Nation, 2001).

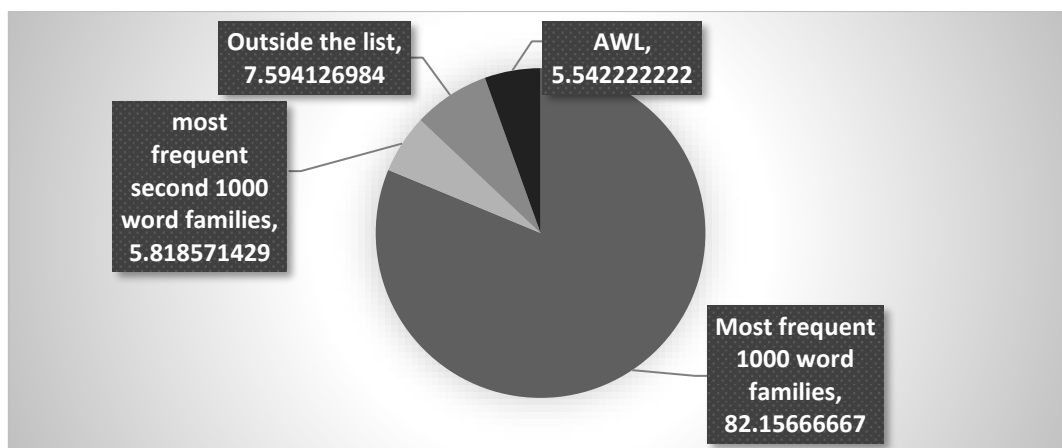


Figure 2. *Vocabulary Profile of the LCAW Corpus*

As can be seen, almost 92.5% of the vocabulary words used in these essays come from the most frequently used GSL and AWL lists, and around 7.5% of the words were from outside the lists.

Table 2. *Distribution of words between AWL and GSL based on Cobb's Lextutor analysis*

	Most frequent 1000 word families	most frequent second 1000 word families	Outside the list	AWL	Tokens in a single text	Lexical density
Mean	82.15667	5.818571	7.594127	5.542222	330.8095	0.519206
SD	5.309715	2.638344	9.732367	2.806923	125.1952	0.043191

4.2 AWL words in the LCAW

The following table charts the occurrence of AWL words in the LCAW corpus according to the frequency of occurrence of the word families across the ten sub-lists. For example, when we sorted the tokens alphabetically, we could organize the different members of the same word family in the order of frequency of occurrence shown in figure. The frequency of the family members, as listed in OLDAE, were identified and the total number of occurrences was counted manually. The family members of the root word “benefit”, thus, includes benefit (noun & verb), beneficial, and beneficiary. The same procedure was followed across the sub-lists.

Table 3. Frequency distribution of AWL word families in the LCAW across the ten sub-lists

	Sub-list 1	Sub-list 2	Sub-list 3	Sub-list 4	Sub-list 5	Sub-list 6	Sub-list 7	Sub-list 8	Sub-list 9	Sub-list 10
Average Frequency	28.75	41.133	21.288	21.35	21.4	12.45	14.216	6.45	8.3166	4.3
STADV	34.779	54.037	42.105	44.781	26.746	21.491	22.244	7.7184	20.409	8.13739
	51	8	8	13	9	37	47	02	78	8

As shown in Table 3, students seemed to have used AWL words from the first five sub-lists more often in their writing. However, there is a steady decline in the frequency of use from sub-list 1 to sub-list 10. An average use of 28.75 times in the corpus was recorded for words in sub-list 1 while only 4.3 average was recorded for sub-list 10. Where the average frequency of use is higher, particularly from sub-list 6 to sub-list 10, the SDs were found higher as well, indicating to the fact that some words from these sub-lists (*compute*, *affect*, and *conclude* from list 2, *job* from list 4, *device* from list 9) have influenced the mean average scores of frequencies of occurrence. On the whole, the usage pattern seemed to show a tendency toward frequency of occurrence of the AWL words in the real-world academic contexts.

Similarly, students seemed to prefer to use more often the noun forms of word families over the others. For instance, in the top 20 most frequently used AWL words, 14 words were nouns. Although many of these AWL words do realize in various other word-forms, students seemed to rely mostly on the noun forms of them.

4.3 Meaning(s) and Patterns

Across the corpus, instances of AWL were examined for levels and meaning senses. For some words the Cambridge EVP recorded multiple levels of meanings (e.g., benefit, impact, and conclusion), and for others only one level (e.g., computer, technology and aspect). Every instance of word usage was closely examined through the EVP definitions and levels.

EVP has classified three different levels (B1, B2, and C2) of usage for the word *conclusion*. Cross examination of the instances with EVP profile revealed that, in the corpus, the phrase ‘in conclusion’ is exclusively used to state ‘the end of a piece of academic writing’ which is at B2 level. Rarely did students choose expressions such as *reach the conclusion* (B1), *jump to conclusions* (C2), *be brought to a conclusion* (C2). Similarly, the word *impact* was mostly used to signal the sense ‘the effect that a person, event or situation has on someone or something’ at B2 level; the sense ‘the force or action of one object hitting another’ (C2) as in “to design a bumper system to lessen the impact of the crash” were hardly used.

EVP has listed three specific senses of the word *focus* at B2, C1 and C2 levels. The meaning sense at B2 levels refers to the verb-form (helping verb + *focus* + on) denoting the sense ‘to give a lot of attention to one particular person, subject or thing’ while the other two senses referred to the noun-form indicating to ‘the person or thing that is getting most attention in a situation or activity’ (C1) and ‘(U) when you give special attention to something’ (C2). Of the 86 instances of use, 81 instances conveyed the B2 level meaning sense listed here. Also, over constructions with pre-modifying intensifiers or adverbs such as *typically*, *largely*,

predominantly and *traditionally* students preferred to use the most frequent construction “focus+on+sth”.

The word *physical*, according to EVP, has two levels of meanings (-physical BODY B2, -physical THINGS C2). Corpus instances indicated to the B2 level use of the word. Some of the examples from the corpus include:

- a. Gaming is harmful to addicted players’ *physical* health.
- b. To make them more excited to quit video games and start playing with toys and climbing trees and do *physical* exercise, reward them.
- c. Playing long hours without *physical* movement and not interacting with the real world can trigger symptoms of depression.

Similarly, words such as *job(s)*, *communicate* and *stress* have multiple levels of meaning senses. In our analysis we found that most of the instances of usage did not refer to the C1 and C2 level meaning senses. Our analysis of the recurrent patterns of the words, both syntagmatically and paradigmatically, indicated mostly to B1 and B2 level meaning senses. Some of the most frequently used patterns are shown in the Table 5 below.

Table 4. Frequency distribution AWL word families across the LCAW corpus

Sublist 1	Word fam	Sublist 2	Word fam	Sublist 3	Word fam	Sublist 4	Word fam	Sublist 5	Word fam	Sublist 6	Word fam	Sublist 7	Word fam	Sublist 8	Word fam	Sublist 9	Word fam	Sublist 10	Word fam
benefit	132	compute	243	technology	188	job	292	mental	140	furthermore	139	media	97	virtual	35	device	140	depress	37
environment	130	affect	233	task	187	communicate	139	generation	96	motive	73	adult	91	eventual	28	controversy	50	encounter	19
similar	121	conclude	228	physical	146	stress	129	aware	90	ignorance	45	isolate	76	visual	27	found	49	likewise	15
create	97	impact	119	instance	119	contrast	73	academy	67	enhance	37	ultimate	74	minimise	21	team	42	enormous	13
method	91	focus	115	contribute	84	despite	72	energy	58	capable	32	grade	60	schedule	19	relax	30	convince	11
factor	88	aspect	103	interact	77	goal	52	psychology	53	utilise	32	release	39	widespread	17	vision	19	nonetheless	8
issue	77	final	102	specify	75	concentrate	48	medical	48	assign	31	equip	34	crucial	16	integral	16	persist	8
major	74	culture	99	outcome	24	sum	48	whereas	48	transport	25	chemical	28	drama	16	ethic	12	incline	7
require	64	positive	80	rely	23	option	31	style	46	instruct	24	decade	25	intense	15	converse	11	intrinsic	7
individual	62	tradition	75	component	22	obvious	30	challenge	41	lecture	23	contrary	14	exploit	23	diminish	10	compile	1
role	61	achieve	71	shift	21	internal	28	network	41	nevertheless	22	unique	23	appreciate	13	scenario	10	integrity	1
process	60	community	67	alternative	19	access	23	external	36	flexible	21	definite	22	via	12	attain	9	odd	1
source	59	consequent	55	constant	17	predict	18	perspective	35	display	20	priority	22	clarify	10	confine	7	panel	1
economy	47	consume	55	link	17	cycle	16	evolve	33	expert	19	phenomenon	20	nuclear	10	mature	7	adjacent	0
period	45	design	52	fund	16	overall	16	monitor	33	diverse	16	topic	20	manipulate	9	temporary	7	albeit	0
available	42	feature	46	layer	15	commit	14	stable	31	intelligence	16	adapt	18	accumulate	8	devote	6	assemble	0
specific	40	maintain	43	react	14	emerge	14	expose	28	accurate	15	innovate	16	highlight	8	medium	6	collapse	0
research	39	acquire	41	technical	13	implement	14	image	25	bond	15	classic	15	abandon	7	trigger	6	colleague	0
vary	37	appropriate	41	technique	13	promote	14	pursue	23	reveal	13	eliminate	14	bias	7	assure	5	conceive	0
significant	29	regulate	38	illustrate	12	summary	14	contact	22	author	11	deny	12	exhibit	7	accommodate	4	forthcoming	0
indicate	28	seek	37	circumstance	11	attitude	13	facilitate	22	cooperate	11	convert	10	infrastructure	7	anticipate	4	invoke	0
function	25	site	37	publish	11	status	13	expand	20	ministry	11	simulate	9	vehicle	7	duration	4	levy	0
occur	22	normal	31	ensure	10	project	12	fundamental	20	incentive	10	confirm	8	tense	6	inherent	4	notwithstanding	0
approach	21	conduct	27	constrain	9	adequate	11	conflict	19	inhibit	10	couple	8	accompany	5	mutual	4	ongoing	0
area	21	resource	26	remove	9	professional	11	trend	17	overseas	8	identical	8	displace	5	revolution	4	pose	0
concept	20	potential	25	dominate	8	statistic	11	modify	16	acknowledge	7	aid	7	plus	5	rigid	4	reluctance	0
income	17	purchase	24	locate	8	debate	10	prime	16	brief	7	differentiate	6	uniform	5	supplement	4	so-called	0
analyse	15	participate	22	emphasis	7	series	10	enable	14	edit	7	comprehensive	6	ambiguous	4	insight	3	straightforward	0
assume	14	previous	21	exclude	7	approximate	9	capacity	13	attach	6	dispose	5	automate	4	route	3	undergo	0
define	13	complex	19	proportion	7	phase	9	transit	13	initiate	6	foundation	5	radical	4	bulk	2	whereby	0
percent	13	institute	17	coördinate	5	hence	8	version	13	incorporate	5	survive	5	revise	4	format	2		
identify	12	invest	17	core	5	attribute	7	logic	11	exceed	4	voluntary	5	theme	4	norm	2		
consist	10	secure	17	demonstrate	5	label	7	alter	10	gender	4	channel	4	currency	3	overlap	2		
principle	10	strategy	17	imply	5	occupy	7	sustain	10	incidence	4	ideology	4	detect	3	passive	2		
data	9	primary	15	maximise	5	output	7	target	10	transform	3	sole	4	paragraph	3	suspend	2		
structure	9	category	14	criteria	4	grant	5	decline	9	underlie	3	transmit	4	random	3	violate	1		
establish	8	evaluate	14	document	4	civil	4	generate	9	migrate	2	dynamic	3	reinforce	3	analogy	1		
evident	7	region	14	justify	4	implicate	4	reject	7	abstract	1	globe	3	contradict	2	commence	1		
theory	7	assist	13	minor	4	integrate	4	adjust	6	discriminate	1	intervene	3	inevitable	2	distort	1		
distribute	6	obtain	13	register	4	resolve	4	precise	6	domain	1	prohibit	3	predominant	2	intermediate	1		
interpret	6	text	13	considerable	3	apparent	3	enforce	5	fee	1	submit	3	restore	2	manual	1		
legal	5	transfer	12	deduce	3	dimension	3	ratio	5	index	1	extract	2	conform	1	military	1		
assess	4	distinct	11	partner	3	impose	3	substitute	4	input	1	mode	2	contemporary	1	portion	1		
involve	4	item	11	sequence	3	mechanism	3	licence	2	interval	1	quote	2	induce	1	refine	1		
labour	4	administrate	10	comment	2	principal	3	notion	2	rational	1	reverse	2	terminate	1	behalf	0		
sector	4	injure	10	philosophy	2	annual	2	orient	2	recover	1	hierarchy	1	thereby	1	cease	0		
derive	3	restrict	10	sufficient	2	code	2	compound	1	scope	1	somewhat	1	append	0	coherent	0		
section	3	select	10	valid	2	retain	2	consult	1	aggregate	0	thesis	1	arbitrary	0	coincide	0		
authority	2	perceive	9	compensate	1	subsequent	2	draft	1	allocate	0	advocate	0	chart	0	compatible	0		
contract	2	range	9	scheme	1	domestic	1	equivalent	1	cite	0	comprise	0	commodity	0	concurrent	0		
respond	2	element	8	consent	0	error	1	liberal	1	estate	0	empirical	0	complement	0	erode	0		
context	1	credit	5	convene	0	hypothesis	1	margin	1	explicit	0	file	0	denote	0	mediate	0		
estimate	1	relevant	5	corporate	0	parallel	1	revenue	1	federal	0	finite	0	deviate	0	minimal	0		
legislate	1	survey	5	correspond	0	parameter	1	symbol	1	minimum	0	guarantee	0	fluctuate	0	preliminary	0		
policy	1	construct	4	framework	0	prior	1	welfare	1	neutral	0	infer	0	guideline	0	protocol	0		
constitute	0	equate	4	immigrate	0	undertake	1	amend	0	precede	0	insert	0	implicit	0	qualitative	0		
export	0	reside	3	initial	0	confer	0	clause	0	presume	0	paradigm	0	inspect	0	restrain	0		
finance	0	journal	2	negate	0	ethnic	0	discrete	0	subsidy	0	publication	0	offset	0	sphere	0		
formula	0	commission	1	sex	0	regime	0	entity	0	tape	0	successor	0	practitioner	0	subordinate	0		
proceed	0	chapter	0			investigate	0	objective	0	trace	0	visible	0	prospect	0	unify	0		

Table 5. *Lexical profile of the most frequently used AWL in LCAW*

Word	Total Frequency of Occurrence	Highly Frequent Form	Frequency	Range	Frequently used patterns
Benefit	276	Benefits Benefit	132 79	62 97	Research-oriented Quantification bundle Benefit: Noun + benefit + from + noun (to be in a better position because of sth) B2 Benefits: Verb + benefits: (have-forms)+ a lot of benefits; (one of) + the benefits of (verb+ing); (a helpful and useful effect that sth has) B1 No instances found for C2
Environment	130	Environment	128	76	Research-oriented Description bundle - Indefinite article <i>a</i> + Adjective (mostly positive semantic preference) + environment + (optional <i>for</i>) <i>a</i> + <i>biological/ healthy/ natural/ best/ wonderful environment for</i>; B2 - verbs with negative semantic preference + Definite article <i>the</i> + environment (<i>affect/harm/destroying/contaminate</i> the environment) B1 Strong Collocations: <i>play free environment, learning environment,</i>
Similar	121	Similarities	72	40	Research-oriented Quantity specification bundles Use of fixed expression with quantity specification <i>There are some/ a lot of /have many</i> + similarities + and + differences + between B2 (*only B2 level profile is available)
Compute	243	Computer Computers	146 86	60 32	Research-oriented Topic related bundles Using a computer; (Gerund)+ on the computer; Strong Collocation: <i>Computers and (laptops/smartphones); computer</i> + (Nouns) <i>games, screen, monitor</i>; A1 (*only A1 level profile is available)
Affect	233	Affect Affects	146 48	112 39	Participant oriented Stance feature bundles will/can/might + (optional adverbial with a negative semantic preference) + affect + (article) + noun <i>will adversely affect the health of</i> affects (as verb) + noun; <i>affected by</i> (passive voice) B2 (*only B2 level profile is available)

Conclude	228	Conclusion	174	173	Text-oriented Transition signal bundle <i>In conclusion,</i> B2 level meaning referring to the end of a piece of academic writing (B1 and C2 level phrases were rarely used)
Impact	119	Impact	91	68	Research oriented quantification bundles A (qualifier) + impact + on; the impact of <i>A huge/big/significant impact on; have an impact on something</i> Mostly B2 level sense ‘the effect that a person, event or situation has on someone or something’ (C1 and C2) level senses were infrequently used.
Focus	115	Focus	86	69	Participant oriented bundles Stance: (modal verbs with negative) + focus +on+ sth; <i>Can’t/ don’t+ focus on</i> Engagement: <i>In this essay I will focus on</i> signaling reader’s attention B2 level sense ‘to give a lot of attention to one particular person, subject or thing’
Aspect	103	Aspects Aspect	66 37	52 30	Research oriented Quantification bundles (adjective)/ the most important/ all/ one of the + aspect (s); so many aspects; The first/second/final+ aspect (text-oriented transition signal) B2 (*only B2 level profile is available)
Final	102	Finally	97	88	Text-oriented Transition signal Finally, + (reiteration of the thesis statement) B1 used especially at the beginning of a sentence to introduce the last point or idea
Technology	188	Technology	157	77	Research-oriented Topic bundle The + noun (development/ use/ evolution/ lack) + of + technology; to use/ of using + technology; B1 referring to ‘knowledge, equipment, and methods that are used in science and industry’
Task	187	Tasks	162	44	Research-oriented Topic bundles This word was found exclusively used by two groups of female students who were given a topic on “doing personal tasks”. Hence the word ‘task’ was recurrently used in the phrase “doing personal tasks” B2 referring to ‘a piece of work, especially something unpleasant or difficult’
Physical	146	Physical	121	63	Research-oriented Topic bundles Fixed expression Mental and physical + Noun (health, activities); (mostly used in the context of games and sports, and obesity) Strong Collocates: mental and physical

B2 referring to ‘related to the body’					
Instance	119	Instance	115	103	Text-oriented Transition signal Used mainly as an appositive conjunct to express the content of the preceding item. <i>For instance,</i> B1 only referring to ‘for example’
Job	292	Job Jobs	236 54	83 35	Research-oriented Topic bundles 1. (do-form/have-form) + indefinite article + adjective (permanent/stable/good) + job as in <i>have a permanent job</i> 2. a + job + will/can + verb (positive semantic preference) a <i>job can contribute</i> other patterns: <i>consider(ed) as a job, taking/making a hobby as a job,</i> Used mostly to refer to “work for which one receives payment” Has not been used as a pre-modifying noun as in <i>job satisfaction, job security</i> Strong collocates: <i>job searching, online jobs, real job, job opportunities</i> Mostly A1 and A2 (paid employment and piece of work) level senses, sometimes B2 level (job as responsibility); rarely C2 level senses
Communicate	139	Communication Communicate	75 47	51 39	Research-oriented Topic bundles Verb (improve)/ noun phrase (face-to-face) + communication + skills Mostly as infinitive with the preposition with as in to+ communicate + with B1 level (to share information with others by speaking, writing, moving your body or using other signals); (21 times B2 level out of 122 instances)
Stress	129	Stress	109	56	Research-oriented Topic bundles cause-effect relation Mostly as a <i>noun</i> referring to “pressure or anxiety caused by the problems/failure” as in <i>lead to stress, caused by stress, reduce/release/relieve stress</i> No uses related to the meaning sense <i>emphasis</i> Strong collocations: <i>reduce/ relieve/ release stress, stress and anxiety</i> B1 level to refer to feelings of worry caused by difficult situations such as problems at work; no instances for B2 (pronunciation), C1 (importance) were found

Mental	140	Mental	106	60	Research-oriented Topic bundles cause-effect relation Referring mostly to the “illness of mind” as in <i>cause mental health + problems/disorders/ condition/ illness/ pressure</i> <i>develop our mental abilities/skills</i> Strong collocations: <i>mental health, mental and physical, mental skills, mental abilities</i> B2 level referring to mind and the process of thinking
Furthermore	139	Furthermore	136 (3 spelling mistakes)	125	Text oriented Transition signal Used as a reinforcing additive conjunct B2 as adverb referring to the sense ‘in addition to what has been said’
Device	140	Devices Device	87 53	56 35	Research-oriented Topic bundles Used to refer to ‘electronic’ or ‘computer’ devices Strong collocations: <i>electronic/computer/mobile-phone devices</i> B2 level sense referring to equipment

4.4 Collocations

Collocation is an important aspect in AWL learning, especially for the reason that AWL is context-independent and yet register specific. Research studies have shown how certain combinations are atypical and discipline specific (Ha & Hyland, 2017). However, in this EFL academic writing course, since the themes students tended to work on varied distinctly, we believed, the range of collocations they used might as well be varied.

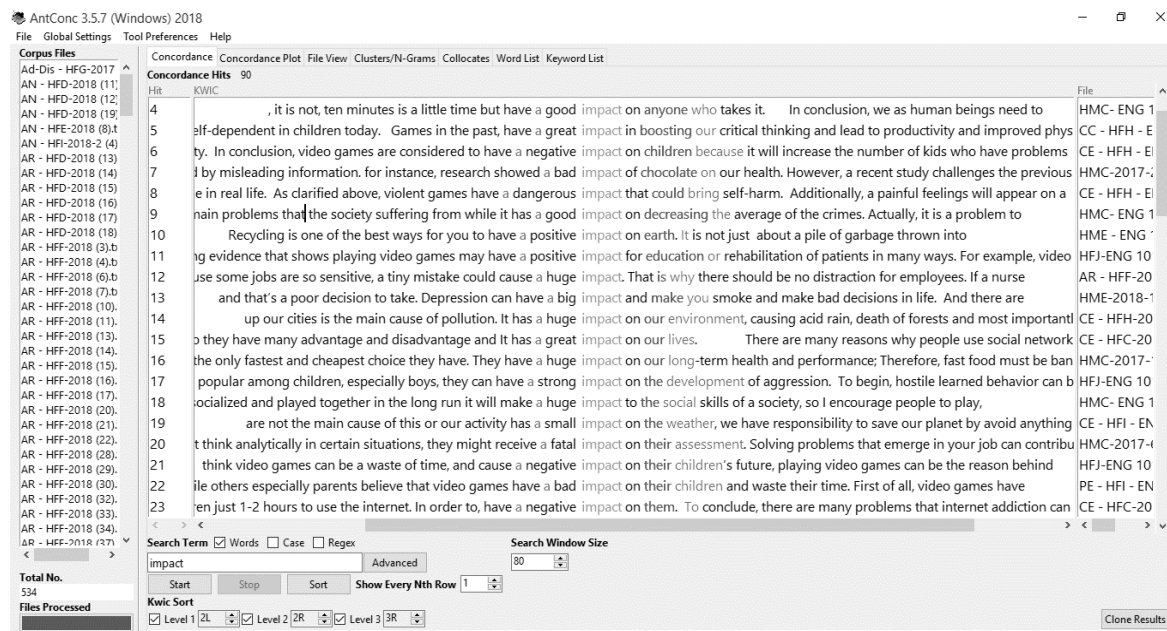


Figure 4. A screenshot of concordances of the word 'aspect' from LCAW

However, it was possible for us to weigh the strength of specific combinations and their distinctiveness. For instance, Corpus of Contemporary American English (Davies, 2020) has identified and organized the collocates based on Mutual Information (MI) values. If a specific node had a collocate with a higher MI value, usually MI (>3), it would generally be considered a strong collocate of the node or the search word. In this study, *AntConc* collocation tool was used to identify the frequent collocations (only content words) used on either side of the node. Table 6 shows the most frequent collocates [MI (>3), R5-L5] of the AWL words with at least 50 frequencies in the LCAW are included.

Table 6. The most frequent collocates [MI (>3), R5-L5] of the AWL words that has a minimum of 50 instances in the LCAW

Collocates on left	Word	Collocates on the right
take, play, video, games	benefit	playing, students, video, children,

school, provide, learning, education, healthy, good, better	environment	students, bad
both, differences, some, many, lot	similar	both, differences, other
children	create	
teaching, use, learning, traditional, schools	method	learning, traditional
important, smoke, several, other, most, another, external	factor(s)	people, more
video, games	major	cause, problem, differences, life
games, video	require	
many, writing	individual	
play, important, parents, games	role	models, playing, life, child
education	process	
	source	information, energy
personal, using, desktops, using, need, write, videos, students, gaming, type, expensive	compute	laptops, games, writing, smartphones, hand, portable, people
games, video, smoking, education, children, negatively, lack, playing, many	affect	children, negatively, people, health, future, way, positively, individual, games, community, behavior, badly, negative, environment
work, time, activities	conclude	despite the fact, games, people, playing, video, important, education, parents, children, believe
negative, games, video,	impact	children, health, social, video,
games, employees, education	focus	more, studies, developing, students
many, different, various, important, essential	aspect	video
work, life	final	people, parents, when
different, learn, play, people	culture	language
negative, video, games, more, life	positive	effects, children, negative,
more, online, other	tradition	games, shopping, method(s)
academic	achieve	goals
affects	community	
	consequent	
food, what	consume	video, games
games	design	games
using, development, they, people, nowadays, some, because	technology	people, video, students, games, most, become, education
personal, doing, permitting, work, time, daily, fact	task	work, checking, personal, some, people
mental, skills, children, games, mentally, effects, playing, modern, classical, develop, many	physical	health, activities, mental, skills, children, games, mentally, effects, playing
	instance	when, children, students, video
games, video. time, moreover	contribute	development, life
electronic, children, games, social	interact	people, other, children

	specify	games, video (only with specifically)
people, hobby, online, doing, considered, leisure, dream, stable, traditional, time, some, activity, pursue, find	job	searching, furthermore, leisure, because, people, moreover, activity
social, people, lack, skills, face, children, media, improve	communicate	skills, people, others, make, nowadays
reduce, relieve, release, cause, play, student, people	stress	work, because, anxiety
compare	contrast	schools, laptops, food, some, public
conclusion, work	despite	fact, people
achieve	goal	which
physical, children, health, games, develop, affect, physically, both, many	mental	health, physical, skills, abilities, state
next, this, that	generation	
parents, lack, people	aware	games, children
children	academy	progress
source	energy	
	psychology	
work, job	furthermore	people, many, there, they, play, parents
internal, external, intrinsic	motive	external
social, using, people, many	media	programs, people, websites, teens, social
children, playing	adult	playing, children, time
social, make, people, more, become	isolate	video, social
school	ultimate	games, videos, school, private, many, differences
high, students, getting, good	grade	students
electronics, using, video, other, own, most, computer	device	children, video
although, statement, work	controversy	agree, topic

From the listed collocations the following four words were found to collocate strongly with most of the frequently used AWL words, in fact on either side, in the corpus: *games* (1170/ Rank 22), *children* (1204/ Rank 21 times), *people* (1077/ Rank 25) and *video* (758/ Rank 36). Many of the identified collocations such as *healthy environment*, *similarities and differences*, *communication skills*, *video games*, *dream job*, *despite the fact*, *intrinsic motivation*, *stress release* were normalized ‘chunks’ that are, in fact, widely used across everyday contexts of language use. Furthermore, the examples or the supporting details mostly relied on contexts such as *video games*, *children*, *schools and education*, *parents*, and *technology*. It could be due to the reason that video-games were the most popular teenage indoor activities that many Saudis take interest in.

- a. In one study, the researchers Brad Bushman and Craig Anderson Asked players of different types of video games to read an ambiguous story then describe it.

- b. Spending long periods of time playing video games is a contributing factor in increasing the chance of children being more introvert and having less self-regulation and more likely to behave in a violent way.
- c. Recently video games dominate traditional games such as snakes and ladders, football and playing with toys.
- d. For example, children see video games as a way of releasing their stress after a very long day in school, but this is not the case.

Whether the focus of the writing task was on genres such as compare and contrast, cause and effect or argumentation, or on themes such as *stress, health and nutrition, writing by hand, technology tools for success*, the topic sentences were supported frequently by instances from these activities.

There were also other combinations that typically represented novice writing practices. For instance, although the collocational network of the word ‘aspect’ included some of the frequent collocates such as *essential, important*, and *negative*, many students have used the singular form of ‘aspect’ as a conjunctive to refer to the writer’s rhetorical organization of information.

- a. The *second aspect* is class size.
- b. The *second aspect* is that the nature of gaming always has its winners and losers, which turned out to be of great value for children, as children who experience the ecstasy of winning in a game, and children who experience the disappointment of losing in a game give these children a taste of life’s ups and downs, giving them the chance to grow mentally.

5 Discussion

It is also widely acknowledged that the writing skills of many of the ESL and EFL undergraduate students need to be substantially improved so that they achieve success on university level programs (Tribble, 2011). This challenging task of enabling students to meaningfully engage with academic discourses and produce quality texts require them to employ, among other aspects of linguistic competence, lexical resources appropriate to the contexts of communication. Appropriate and accurate use of academic vocabulary is an important indication of academic language proficiency.

Coxhead’s word list is organized into ten sublists, the first sublist containing the most frequent words and the tenth sublist containing the least frequent academic words. The most frequent words in the first few sublists, probably, can be classified as the words with high usability. In our analysis of learner writing we discovered that there was a steady decline in the mean scores of distribution of AWL across the sublists, starting from list 1 to 10. This could probably be due to the factor that words

in low-frequency sublists (accumulate, adjacent, analogy...) are relatively less frequent in EAP academic programs compared to words such as *analyze*, *appropriate*, *area*, *comment*, and *complex* from the first three lists. Similarly, while some forms of AWL are frequent the other are either less frequent or were not used at all: *benefit(s)* occurs 202 times while *beneficiary* and *beneficially* occurs once each. On the whole, students used more often noun forms—depression (30 times), motivation (27 times), transportation (17 times)—of word families than the other forms.

EVP's level specific meaning sense classification has significant pedagogic consequences in EAP courses. What typically classified the C1 and C2 level meaning senses from other levels was the 'phraseology' (Oakey, 2020) or the network of the words: most of the C1 and C2 level senses seemed to be primarily phraseological or, sometimes, idiomatic expressions. A few examples of such expressions are given below.

issue (SUBJECT)

B1 a subject or problem which people are thinking and talking about

Dictionary examples:

environmental/moral/personal issues

*As employers we need to be seen to be **addressing** these issues sympathetically.*

take issue (with sb/sth)

C1 to disagree with what someone says or writes

Dictionary example:

I would take issue with you on that.

Learner example:

On behalf of the staff who worked for this event, I would like to take issue with the report's inaccuracies and unfair remarks. (Certificate in Advanced English; C1; Japanese)

at issue

C2 most important in what is being discussed

Dictionary example:

The point at issue is what is best for the child.

Learner example:

I wouldn't like to fall into the trap of generalizing the matter at issue, but I believe there are two ways of travelling. (Certificate of Proficiency in English; C2; Italian)

Phrase

fulfil a function/need/role, etc.

C1 to do something that is necessary or useful

Dictionary example:

You seem to fulfil a very useful role in the organization.

Syntagmatic analysis of multiple concordances for many words from AWL indicated to gaps in the use of appropriate phraseological expressions, especially for C1 and C2 levels. Students' lexical

choices were mostly limited to B1 and B2 level meanings. Furthermore, the most frequent collocations of the AWL were, in fact, the most frequent 2000 words from the General Service List (Cobb, 2020). As shown in figure 1, almost 92.5% of the words identified by Tom Cobb's Lextutor in the corpus were from the GSL and AWL while only 7.5% are out of the list.

What distinguishes academic writing from other forms of writing is its selection and use of linguistic expressions—collocations, lexical bundles, and other grammatical structures—that are specific to academic writing contexts. Despite the fact students produced five paragraph essays (cause-effect, compare and contrast, argumentative, and problem-solution) that were typically organized into the three tier textbook model of introduction, body and conclusion, the internal lexical cohesion of the texts had not achieved the standards of academic writing courses. While most of the collocational choices were general and highly transparent, grammatical structures heavily relied on *be*-forms (*is* ranked 7 and *are* ranked 10 in the frequency of occurrence) and post-modification relative pronouns (*that* as a relative pronoun ranked 8 while *which* ranked 34).

6 Conclusion

Academic Wordlist for academic writing purposes requires to be contextualized. As Hyland and Tse (2012) and Philip Durrant (2016) have rightly pointed out, a wordlist by itself will be little use to students when they do not realize the importance of co-text and context of use. Keeping the contextual aspects in view researchers have published academic lexical items lists for practical EAP purposes (Biber, 1988; Hyland, 2008a). While the reasons to publish a discipline specific wordlists can be justified for they serve specific language needs of disciplines, the publication of common core wordlists for writing needs to take into consideration a number of factors that determine their choice.

Also the pedagogical aspects of lists in terms of materials, classroom teaching strategies and assessment should go beyond the indirect measures of receptive knowledge to actually make students use them appropriately in production tasks. While producing materials the practitioners need to consider highlighting both the words in focus and their respective patterns and collocations so that the students 'notice' them. Teachers can also consider using context-bound concordances where specific frequently used patterns are presented to learners for analysis. DIY projects where students compile their own corpora and analyze language using DDL methods could be implemented (Charles, 2012, 2014).

Although students analyze instances and sometimes extended contexts of language use, it is important they use them in writing tasks. Genre approaches to language education have been in vogue

for some time, and research studies have provided plenty of evidence in support of these approaches in EAP courses (L. Flowerdew, 2015). If the courses developers produce tasks that include both the macro and micro aspects of language, where the frequently occurring lexical bundles and formulas are given importance at the micro-level aspects, students might benefit significantly (Tribble, 2011).

In this paper we have made an attempt to describe qualitatively the use of AWL in EFL academic writing contexts. The tools we have used here could be systematically put to use to understand a range of other aspects such as lexical bundles and cohesive markers. In fact the scope of explication could be extended to a rather large size of learner corpus such as BAWE, and probably to all the AWL words.

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A Functional-Pragmatic Analysis of Pragmatic Markers in Spoken Learner English

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Abstract

This study explores the use and functions of textual and interpersonal English pragmatic markers (PMs) as used by Jordanian university students. It also examines the effect of gender on the use of PMs. To this end, a functional-pragmatic approach was used in the analysis. The participants were 20 fourth year university students (10 males and 10 females) who study English at the University of Jordan. Online interviews, a storytelling activity and a short questionnaire were used to elicit data which were qualitatively and quantitatively analysed. The study found that textual PMs were more commonly used as compared to interpersonal PMs. The functional analysis revealed that the textual PMs were used to mark contrast,

elaborate, reformulate and exemplify, show temporal sequence, indicate an inferential or conclusive relationships and summaries, signal shifts, transition, continuation, opening or closing of the discourse. On the other hand, the interpersonal PMs were used to signal receipt of information, show support to the interlocutor, add information to make the statement clearer, stimulate interaction, show repair, denote thinking processes, assess the interlocutor's knowledge, act as a hedging device, and indicate attitudes and opinion. With respect to the use of textual and interpersonal PMs in relation to gender, the study revealed no significant differences between the two genders. These findings present implications for interlanguage pragmatic studies in terms of second language (L2) learners' use of PMs in discourse.

Keywords: *Interpersonal markers; Linguistic adaption; Pragmatic function; Pragmatic markers; Relevance theory.*

1. Introduction

Providing a concise definition of pragmatic markers (PMs) is a challenging endeavour. Therefore, pragmatics research is rich of terms that are used to refer to PMs: discourse markers (Fraser, 1996; Schourup, 1999; Shiffrin, 1987), discourse connectives (Blakemore, 1992), conversational markers, and modal particles (Fischer, 2006). While some researchers use the terms discourse markers (DMs) and PMs interchangeably, others use PMs to refer only to connectives in spoken discourse (see, for example, Wei, 2011). In this study, the term PMs is used, following researchers such as Andersen (2001), Brinton (1996), Redeker (1990) who use PMs as the umbrella term for these discourse-connecting items. The reason for this choice lies in the fact that the word *pragmatic* alludes to a pragmatic meaning/function in utterances. As Andersen (2001) puts it, “the label ‘pragmatic’ is meant to suggest a relatively low degree of lexical specificity and a high degree of context-sensitivity” (p. 40).

PMs play an essential role in discourse because they contribute to cohesion and coherence. For instance, Schifffrin (1987) argues that DMs greatly contribute to coherence because they create links among adjacent segments in discourse. Absence of PMs makes utterances unnatural and disconnected which increases the possibility of misunderstanding. According to Wei (2011), “[PMs] affect how discourse proceeds through integrating discourse units or pointing to none's interactional involvement in spoken communication” (p. 3455). According to Andersen (2001), there are two types of PMs: textual and interpersonal. The functions of these types were described by Andersen (2001, pp. 65-66) in the following quote:

A pragmatic marker that has an interactional function describes what the speaker perceives as the hearer's relation to a communicated proposition/assumption (i.e. it is hearer-oriented). ... [A] pragmatic marker with a textual function describes what the speaker perceives as the relation between sequentially arranged units of discourse, for instance between propositions or communicated assumptions in general.

The functions of interpersonal and textual PMs are classified in Table (1) below. According to Ament, Vidal and Barón (2018, p. 64), these functions are based on a review of related literature.

Table 1 Functions of Textual and Interpersonal PMs

Functions of Textual Markers	Functions of Interpersonal Markers
<i>To show causal relationships to show consequence or effect, to mark the link between two clauses</i>	<i>To mark receipt of information, to show listenership and support to the speaker</i>
<i>To mark a contrast between two clauses or between two parts of the discourse</i>	<i>To stimulate or maintain interaction, to assess listener comprehension and engagement</i>
<i>To show a continuation of discourse on the same topic, to add additional information</i>	<i>To align or disalign oneself with the speaker by expressing agreement or disagreement</i>
<i>To elaborate, reformulate or exemplify</i>	<i>To mark joint construction of knowledge, mark common ground</i>
<i>To signal the opening or closing of discourse or mark the end or beginning of a turn</i>	<i>To signal hesitation, thinking or repair</i>
<i>To show the temporal sequence between clauses or between two parts of the discourse</i>	<i>To mark attitudes, stance or emotional reactions</i>
<i>To signal shifts or transitions of discourse topics, to mark digression from one topic to another or return to a previous topic</i>	<i>To intensify, boost, downgrade, hedge or serve as politeness markers</i>

This study aims to investigate the use of textual and interpersonal English PMs by Jordanian university students. In addition, the study adopts a functional-pragmatic approach to explore

the functions of these pragmatic markers. By doing so, the study seeks answers to the following research questions:

1. What are the textual and interpersonal English PMs used in the speech of Jordanian EFL learners?
2. What are the functions of the textual and interpersonal English PMs used by the participants?
3. To what extent does gender influence the use of English PMs?

2.Theoretical Background

The study of PMs is pertinent to two popular theories: Relevance theory and the Linguistic Adaptation theory. The Relevance theory was proposed by Sperber and Wilson in 1986. According to Sperber and Wilson (1995), “relevance theory yields hypotheses about the way thoughts follow one another, and about the points at which the individual might turn to the environment, rather than to his own internal resources, for relevant information” (p. 147). The theory basically posits that hearers or readers search for meanings which are highly relevant. Thus, two principles of relevance are cited. According to Sperber and Wilson (1995), the first is the cognitive principle of relevance while the second is the communicative principle of relevance. The Linguistic Adaptation theory was proposed by Verschueren (2000) who argues that “[a]daptability ... is the property of language which enables human beings to make negotiable linguistic choices from a variable range of possibilities in such a way as to approach points of satisfaction for communicative needs” (p. 61). In simpler words, this theory stipulates that speakers greatly value the communicative needs of the situation in question by not only choosing the appropriate forms but also the strategies that enable them to achieve the purpose of the communication. These two theories complement each other. For example, the Relevance theory emphasises the fact that our cognition is relevance-oriented, but it suffers from a drawback: that “considerations of culture and society are notably absent in the characterization of individuals’ cognitive environments” (Talbot, 1994, p. 3526). The Linguistic Adaptation theory rectifies this shortcoming and posits that our use of language is social, cultural, and cognitive in that continuous adaptation to contexts is always present.

3.Literature Review

There are many studies that have been conducted on the use of PMs in learner English. For example, Ament, Vidal, and Barón (2019) explored the use and functions of PMs by native

English speakers and English as a Foreign Language (EFL) learners. Forty-eight second- and third-year students (20 males and 28 females) took part in the study. The participants were divided into three groups: two experimental groups ‘immersion year 2’ and ‘immersion year 3’ and a control group of 10 native speakers of English. Two oral tasks have been used for data collection. The results showed that the participants in the ‘immersion year 3’ group approximated native English speakers’ use of PMs for elaboration, causal, summary, contrast, sequence and topic shift and digression.

In another comparative study, Ali and Mahadin (2015) focused on the use of interpersonal PMs by means of interviewing both native English speakers and nonnative English speakers. Thirty-three advanced Jordanian EFL university students who were studying in the Department of English Language and Literature at the University of Jordan and a group of native speakers of English were interviewed by the researchers. The results showed that the Jordanian university students used more interpersonal PMs than did the native speakers of English. In a similar context to that in the previous study, Kurdi (2008) restricted his study to three English PMs *you know*, *so* and *I mean* as used by 18 Syrian Arabic learners of English as a foreign language in order to explore the influence of the first language of learners on the use of English PMs. The results showed that the learners used the three English PMs for various functions and that no influence from Arabic was recorded in the analysis.

In the Chinese context, Bu (2013) studied the acquisition of PMs by a group of 30 (15 males and 15 females) Chinese learners of English. The data were elicited by means of interviews and recordings of English classroom discussions. The researcher concentrated on the following PMs: *like*, *yeah*, *oh*, *you know*, *well*, *I mean*, *right*, *ok* and *actually*. The findings revealed that all participants used PMs in the interviews more than in the classroom discussion. In the same context, Wei (2011) explored the connection between the oral proficiency of 141 English language learners in China and their use of PMs. The Video Oral Communication Instrument (VOCI), which was developed by the Language Acquisition Resource Centre at San Diego State University as a technologically mediated adaptation to the Oral Proficiency Interview (OPI), was used to measure the level of participants’ proficiency. The results showed that there is a close link between the proficiency level and the use of PMs. The advanced students made more use of English PMs than did the low-level students.

As for gender influences on the use of PMs, Similarly, Bazzanella (1990) found that Italian male and female speakers show preferences for certain PMs which may relate directly to sex-preferential choices. Holmes (1984) found in a study conducted in New Zealand that women use *I mean* in a way different from men: Women use it more deliberately to show certainty

and that men use it more tentatively than women do. In addition, Holmes (1986) found that New Zealand women use *you know* for facilitative purposes while men use it to show uncertainty.

4.Method

4.1Data Collection Procedures

The data were collected from interviews, a storytelling activity and short questionnaire. In this study, all interviews were conducted and recorded by using Zoom due to the restrictions and spread of Covid-19. Each interview lasted for about 30 minutes. Twenty participants were interviewed, 10 males and 10 females. In the storytelling activity, the students were asked to describe a picture for as much time as they need and by giving as many details as they can. A short questionnaire was used to elicit demographic information about the participants.

4.2 Participants

The participants were 20 fourth-year undergraduate university students who study English at the University of Jordan. They were 10 females and 10 males. Their age range was from 22 and 24. The participants were chosen after a proficiency test to make sure that all students fall within the same level.

4.3 Data Analysis Procedures

The utterances that contained both interpersonal and textual PMs were transcribed by using Amber Script, version 1.0, which was convenient and freely available online. In the first step, the audio-recording of the interviews were transcribed, followed by the storytelling activity. Overall, the transcription of the data for analysis amounted to 9 hours and 260 minutes. The PMs were classified into textual and interpersonal, based on their function in the context. Afterwards, the reliability was tested by giving the classification to three professors who specialise in linguistics in order to make sure that the textual and interpersonal PMs were classified under the correct functions. The functions of PMs were qualitatively analysed, based on the Relevance theory and Linguistic Adaptation theory. Moreover, a quantitative analysis was conducted using the SPSS analytical tool to find the frequencies and percentages for each PM. A T-Test was also employed in order to find whether there are significant differences regarding the use of PMs by male and female participants *before* classifying them into textual and interpersonal PMs. This test also enabled us to find if there are significant differences

among females and males concerning the use of PMs *after* classifying them into textual and interpersonal PMs.

5.Findings

After the data had been collected, the transcription process began. For the 20 interviews and the storytelling activity, the total number of words was 33,975 after the researcher's turn was excluded. The average word count for each interview was 1,698. After transcribing the recordings, all PMs tokens were extracted. Table 2 includes all PMs in both the interviews and the storytelling activity prior to their classification as textual and interpersonal PMs

Table 2 PMs in the Interviews and Storytelling Activity

PMs	Number of Tokens
<i>So</i>	131
<i>And</i>	151
<i>You know</i>	44
<i>In addition to</i>	37
<i>But</i>	120
<i>I think</i>	20
<i>For example</i>	16
<i>Because</i>	51
<i>Then</i>	29
<i>However</i>	35
<i>Such as</i>	17
<i>After all</i>	26
<i>In the end</i>	22
<i>That's all</i>	11
<i>Well</i>	13
<i>Yeah</i>	28
<i>And then</i>	57
<i>Finally</i>	17
<i>That is</i>	88
<i>I mean</i>	35
<i>First of all</i>	22
<i>First</i>	45
<i>Secondly</i>	59
<i>Basically</i>	1
<i>Exactly</i>	16
<i>Absolutely</i>	5
<i>I'm not sure</i>	18
<i>Right</i>	40
<i>Really</i>	29
<i>You know what I mean</i>	58
<i>Or</i>	5
<i>Totally</i>	5
<i>Sure</i>	23
<i>Okay</i>	5
Total	1279

The criteria of Fung and Carter (2007) have been used to identify these linguistic expressions as PMs. Their criteria include position, prosody, multi-grammaticality, indexicality, and

optionality. The total count of PMs in the data was 1279 tokens, as illustrated in Table 2 above. Among these PMs, there was a clear variation in their use with a marked occurrence or absence of some PMs for each student.

The researchers have classified the PMs into textual and interpersonal based on their function in the context. The functions are extracted from Table (1) which according to Ament, Vidal and Barón (2018) includes a collection of functions from a review of literature. Table 3 below presents the classification of PMs into textual and interpersonal. Some PMs were classified as textual in some texts and interpersonal in other contexts.

Table 3 The Classification of PMs into Textual and Interpersonal

Textual PMs	Number of occurrences	Interpersonal PMs	Number of occurrences
<i>So</i>	131	<i>Okay</i>	4
<i>And</i>	121	<i>Right</i>	27
<i>Because</i>	51	<i>Yeah</i>	26
<i>Well</i>	3	<i>Sure</i>	23
<i>Yeah</i>	2	<i>I mean</i>	17
<i>Finally</i>	17	<i>Totally</i>	5
<i>Then</i>	29	<i>In addition</i>	37
<i>But</i>	120	<i>Well</i>	10
<i>However</i>	35	<i>I think</i>	20
<i>Or</i>	5	<i>You know what I mean</i>	58
<i>Okay</i>	1	<i>Exactly</i>	16
<i>Right</i>	13	<i>Absolutely,</i>	5
<i>That' all</i>	11	<i>Really</i>	29
<i>And then</i>	57	<i>Basically</i>	1
<i>First of all</i>	22	<i>I'm not sure</i>	18
<i>First</i>	45	<i>You know</i>	44
<i>Secondly</i>	59	<i>And</i>	30
<i>I mean</i>	18		
<i>That is</i>	88		
<i>In the end</i>	22		
<i>For example</i>	16		
<i>Such as</i>	17		
<i>After all</i>	26		
Total	909	Total	370

5. Analysis and Discussion

This section presents the frequency of use of interpersonal and textual PMs by Jordanian EFL students. It also shows the functions of these PMs as used by the participants. The following

table presents the results regarding the frequency of each PM used by male and female students after classifying them into textual and interpersonal.

Table 4 Frequency of Use of Each PM by the Participants

Textual PMs				Interpersonal PMs			
PM	N	% of total	% of textual PMs	PM	N	% of total	% of interpersonal PMs
<i>So</i>	131	8.8	12.4	<i>Right</i>	27	1.8	6.3
<i>And</i>	121	8.1	11.7	<i>Yeah</i>	26	1.7	6
<i>Because</i>	51	3.4	4.8	<i>I mean</i>	17	1.1	3.9
<i>Well</i>	3	0.2	0.3	<i>Totally</i>	5	0.3	1.2
<i>Yeah</i>	2	0.1	0.2	<i>In addition</i>	37	2.5	8.6
<i>Finally</i>	17	1.1	1.6	<i>Well</i>	10	0.7	2.3
<i>Then</i>	29	1.9	2.7	<i>I think</i>	20	1.3	4.6
<i>But</i>	120	8.1	11.3	<i>You know what I mean</i>	58	3.9	13.5
<i>However</i>	35	2.3	3.3	<i>Exactly</i>	16	1.1	3.7
<i>Or</i>	5	0.3	0.5	<i>Absolutely</i>	5	0.3	1.2
<i>Right</i>	13	0.9	1.2	<i>Really</i>	29	1.9	6.7
<i>That all</i>	11	0.7	1	<i>Basically</i>	1	0.1	0.2
<i>And then</i>	57	3.8	5.4	<i>I'm not sure</i>	18	1.2	4.2
<i>First of all</i>	22	1.5	2.1	<i>You know</i>	44	3	10.2
<i>First</i>	45	3	4.2	<i>Okay</i>	5	0.3	1.1
<i>Secondly</i>	59	4	5.6	<i>And</i>	30	2	6.5
<i>I mean</i>	18	1.2	1.7				
<i>That is</i>	89	6	8.4				
<i>In the end</i>	22	1.5	2.1				
<i>For example</i>	16	1.1	1.5				
<i>Such as</i>	17	1.1	1.6				
<i>After all</i>	26	1.7	2.5				

As shown in the table above, a total of 1279 PMs were used in the 20 interviews. The analysis showed that 69.1 % (n= 909) were textual PMs, and 30.9% (n=430) were interpersonal PMs. In general, the most frequently used PMs were *and* which is a textual PM by 8.1% (n=121), *so* which is a textual PM by 8.8% (n= 131), and *but* which is a textual PM by 8.1% (n= 120). In contrast, the least frequently used PMs were *basically* which is an interpersonal PM by 0.1% (n= 1), *yeah* which is a textual PM by 0.1% (n=2), and *well* which is a textual PM by 0.2% (n= 3).

As for the interpersonal PMs, the most frequently used ones were *you know what I mean* by 13.5% (n= 58), *you know* by 10.2% (n= 44). On the other hand, the least frequently used interpersonal PMs were *well* by 2.3% (n= 10), *totally* and *absolutely* by 1.2% (n= 5), and *basically* by 0.2% (n= 1).

Within textual PMs, the most frequently used PMs were *so* by 12.4% (n= 131), *and* by 11.7%, and *but* by 11.3% (n= 120). On the contrary, the least frequently used textual PMs were *that's all* by 1% (n= 11, *well* by 0.2% (n=3) and *yeah* by 0.1% (n= 2).

The results presented above show that the Jordanian EFL university students employ more textual PMs than interpersonal ones. This is attributed to the fact that the focus of most learning contexts at Jordanian universities is on traditional linguistic sub-systems such as grammar, pronunciation and vocabulary. That is, the contextual dimension of most learning situations (i.e., pragmatics) is generally ignored and not given the attention it deserves as contributing to the construction of meaning. This conclusion supports Fung and Carter's (2007) results that L2 learners generally use textual PMs more than interpersonal ones and that this "reflect[s] the unnatural linguistic input ESL learners are exposed to and the traditional grammar-centered pedagogic focus which has been geared towards the literal or propositional (semantic) meanings of words rather than their pragmatic use in spoken language" (p. 433).

Another possible justification for this extensive use of textual PMs can be ascribed to the academic nature of most learning and teaching contexts, particularly at the university level. In this respect, Ament and Barón (2018) point out that such academic settings are full of textual PMs, with very minimal reference to interpersonal situations. Ament (2011, p.82) claims that the use and functions of textual PMs is reflective of the kinds of pragmatic functions that lecturers use in their classes. In other words, the use of textual PMs more than the interpersonal PMs by the participants can be attributed to the influence of the input L2 learners receive from their instructors which is the main source of input students have. The low use of interpersonal markers can be attributed to the fact that Jordanian students have very little contact with native English speakers. Indeed, the results from the learner profile questionnaire support this justification: It revealed that all participants were Jordanians and no student was reported to use English communicatively before entering the university. All participants reported that English is a second language to them and that Arabic is the language used inside their homes. This implies that all students are influenced by their instructors' language, being the main

source of input. However, this use of textual PMs is important for comprehension. Flowerdew and Tarouza, (1995) and Jung (2003) examined the effect of the use of PMs on second language comprehension and found that textual PMs are more salient and critical to understanding.

To sum up, the importance of the occurrence of textual PMs in the spoken language of EFL students in addition to the frequent use of textual PMs in academic discourse may illustrate the reason for producing the textual PMs with high frequencies. Interpersonal PMs were less frequently used by the Jordanian EFL students, as compared to the use of textual PMs. The reason for not using the interpersonal PMs at the same rate as the textual PMs can be ascribed to Ament's (2011) claim that the pragmatic meaning that the interpersonal PMs provide is not essential for comprehension, which is the main focus of most EFL learning contexts. Consequently, Jordanian EFL learners might show a tendency not to use many interpersonal PMs; in other words, the interpersonal PMs are cognitively processed more easily than textual PMs. This result is in line with Firth (1996) who stated that if a linguistic term is not crucial for communication, it is frequently ignored as it does not reflect essential information. It also echoes House's (2003) results that students should not mark their relation to a proposition, nor should they pay attention to the hearer's relation to the proposition.

The extent to which gender influences the use of English PMs is asked about in the third question of this study. The answer to this question was reached by investigating the differences in using English PMs before and after classifying them into textual and interpersonal PMs. In order to examine these differences, an independent t-test was used, setting the significant point at $\alpha < 0.05$.

Table 5 Differences in the Use of PMs in Relation to Gender

PMs	t test		Gender			
	T	P	Male		Female	
			M	SD	M	SD
<i>You know</i>	0	1	2.2	1.7	2.2	3.5
<i>In addition</i>	1.3	0.2	3.1	2.9	1.8	1.4
<i>I think</i>	-0.7	0.5	0.9	1.1	1.2	0.8
<i>For example</i>	0	1	0.8	1.3	0.8	1
<i>Because</i>	-0.7	0.5	2.3	1.2	2.8	2
<i>Then</i>	-0.5	0.7	1.3	1.7	1.6	1.2
<i>However</i>	0.5	0.6	2	2.1	1.6	1.2
<i>Such as</i>	1.7	0.1	1.4	1.7	0.4	0.7
<i>After all</i>	0.7	0.5	1.5	1.6	1.1	1.7
<i>In the end</i>	-0.3	0.7	1	1.3	1.2	1.3
<i>That's all</i>	-1	0.3	0.4	0.7	0.7	0.7
<i>Well</i>	-2.4	0.03	0.2	0.6	1.1	1
<i>Yeah</i>	0.2	0.8	1.5	2.8	1.3	0.8
<i>I am not sure</i>	0.6	0.6	1.1	1.7	0.7	1.3
<i>Right</i>	-0.3	0.8	1.8	2	2	1.2
<i>Really</i>	0.5	0.6	1.6	1.8	1.3	0.8
<i>You know what</i>	-4.1	0.001	1.6	1.8	4.5	1.3
<i>Or</i>	0	1	0.3	0.5	0.3	0.5
<i>Totally</i>	0.9	0.3	0.4	1	0.1	0.3
<i>Sure</i>	2	0.1	1.1	1.5	0.1	0.3
<i>And then</i>	-1	0.4	2.2	2	3.5	3.8
<i>Finally</i>	-0.9	0.4	0.6	1	1.1	1.4
<i>I mean</i>	-1	0.4	1.4	1.7	2.2	2
<i>First of all</i>	0.6	0.6	1.3	1.7	0.9	1.4
<i>Secondly</i>	0.5	0.6	3.3	4	2.6	1.4
<i>Basically</i>	1	0.3	0.1	0.3	0	0
<i>Exactly</i>	0.6	0.6	1	1.9	0.6	1
<i>Absolutely</i>	0.7	0.5	0.8	2.2	0.3	0.5
<i>Okay</i>	0.4	0.7	0.3	0.7	0.2	0.4

Table 5 shows the results of the t-test which revealed that there was a significant difference between males and females regarding the use of the PM *but* ($t = 0.06$, $p = 0.04$), with a mean for females ($M = 7.5$, $SD = 2.8$) higher than the mean of males ($M = 4.6$, $SD = 2.8$). This implies that females are more likely to use the PM *but*. In addition, there was a significant difference between males and females regarding the use of *well* ($t = 2.3$, $p = 0.03$), with a mean for females ($M = 1.1$, $SD = 1$) higher than the mean of males ($M = 0.2$, $SD = 0.6$). This indicates that females are more likely to use *well*. Moreover, there was a significant difference between males and females in using *you know what I mean* ($t = 3.5$, $p = 0.001$), with a mean for females ($M = 4.5$,

SD= 1.5) higher than the mean of males (M= 1.6, SD= 1.8). This can be taken as evidence that females are more likely to use *you know what I mean*. In addition, there was a significant difference between males and females regarding the use of *however* ($t = 0.5$, $p = 0.06$), with a mean for males (M= 2.0, SD= 2.1) higher than the mean for females (M= 1.6, SD= 1.2). This essentially means that males are more likely to use *however*.

The findings presented above align with the findings of many studies which showed that there were many differences regarding the use of certain PMs between men and women. For example, Erman (1992) argued that there were gender-specific differences regarding the use of PMs. Erman (1992. p. 217) argued that “women tended to use pragmatic expressions between complete propositions to connect consecutive arguments, whereas the men preferred to use them either as attention-drawing devices or to signal repair work.” Many studies on the use of PMs in both western (Zimmerman and West 1975; West and Zimmerman 1983; Fishman 1983; Holmes 1983, 1984, 1986; Coates 1988b; Nordenstam 1992) and non-western (P. Brown 1980; Ide 1982; Smith 1992) cultures argued that men are more likely to use PMs for confrontational devices than women who were assumed to be more likely to employ PMs for facilitative strategies in their speech than men. These forms indicate that women are more sensitive to the social state than men; it could be said that women are ‘more polite’. They choose a style of speech that shows their identities. Therefore, these explanations pinpoint the basis of the differences in gender. In this regard, Lakoff (1973, p. 45) stated that

In appropriate women’s speech, strong expression of feeling is avoided, expression of uncertainty is favored, and means of expression in regard to subject-matter deemed 'trivial' to the 'real' world are elaborated. Speech about women implies an object, whose sexual nature requires euphemism, and whose social roles are derivative and dependent in relation to men.

The following table presents the differences between males and females regarding using PMs after classifying them into textual and interpersonal PMs.

Table 6 Differences in the Use of Textual and Interpersonal PMs in Relation to Gender

PMs	t test		Gender			
	T	P	Male		Female	
			M	SD	M	SD

Textual PMs	-0.14	0.9	52.4	9.2	53.1	12.6
Interpersonal PMs	0.02	1	22.5	13.3	22.4	6.8

The results revealed that there was no significant difference between males and females in using textual PMs ($t = -0.14$, $p = 0.9$). Furthermore, there was no significant difference between males and females regarding the use of interpersonal PMs ($t = 0.02$, $p = 1$). These results align with the findings of Escalera (2009) who claimed that there were no significant gender differences in the use of PMs. Freed and Greenwood (1996) found a very similar result: They found that differences between males and females in the use of PMs were insignificant.

To sum up, it can be noticed that there is a gender difference regarding the use of PMs before classifying them into textual and interpersonal PMs. According to the SPSS results, the most frequently used PMs were *and*, *so*, and *but*. In contrast, the least frequently used PMs were *basically*, *yeah*, and *well*. As for the interpersonal PMs, the most frequently used were *you know what I mean*, and *you know*. To the contrary, the least frequently used interpersonal PMs were *well*, *totally*, *absolutely*, and *basically*. Within the textual PMs, the most frequently used were *and*, *so*, and *but*. On the other hand, the least frequently used interpersonal PMs were *that's all*, *well*, and *yeah*. In relation to gender differences of the use of PMs, it can be noticed that there is a significant difference between males and females in this regard. For example, the results revealed that females are more likely to use the PMs *but*, *well*, and *you know what I mean* than men. In addition, there was a significant difference between males and females regarding the use of the PM *however* which means that males are more likely to use *however* than women. In relation the use of textual and interpersonal PMs, the results revealed that there was no significant difference between males and females in this respect.

Functions of Interpersonal English PMs

The analysis revealed that there are nine functions of interpersonal PMs. The following subsection discusses the functions of interpersonal PMs.

1. To Signal Receipt of Information

The use of interpersonal PMs to signal the reception of information plays a vital role in making meaning. See Example (1) below:

(1)

A: Good Morning, Omar. I will explain the storytelling activity for you. There are four pictures below, you should study the pictures and make up a story around them.

B: Good morning, I got the idea. *Okay*.

Example (1) is taken from the conversation between the interviewer and one of the students. The interviewer explained to the student the storytelling activity. According to the characteristics of PMs, *okay* in this example is considered a PM. Fung and Carter (2007) stated that the PMs can occur in utterance initial position, utterance medial position and utterance final position. In other words, they are flexible in terms of position and in this context, *okay* occurs in the final position. It is semantically and grammatically optional, which means that the omission of it in this context does not affect or change the truth condition of the proposition. The use of the interpersonal PM *okay* in this context signals the receipt of information. Based on the Linguistic Adaptation theory, the choice of *okay* in this context shows that the student gets the point and receives the information, so the use of this linguistic choice in this context meets the communicative need which is to signal the receipt of information. According to the Relevance theory, the PM *okay* in this context reflects that the student has interpreted the idea of the speaker who is the interviewer in this context correctly. In other words, the student finds the interpretation of the interviewer's utterances.

2. To Show Support to the Interlocutor

Showing support to the interlocutor is the second function of interpersonal PMs. They play a vital role in expressing the support to the speaker. See Example (2) below:

(2)

A: The first day at the university is a very special day in the life of any student. What do you think?

B: *Exactly*. I agree with you.

In this example, the linguistic item *exactly* is a PM as it is optional and marginal. If it is omitted from the sentence, the meaning will not be affected, and the meaning can be understood easily. In addition, it is syntactically independent; it is outside the syntactic structure of the following sentence *I agree with you*. The interpersonal PM *exactly* is deployed to support the interviewer's opinion. This conversation is taken from an interview with one student. The interviewer expresses an opinion regarding the first day at the university then asks the student about her opinion. The use of the PM *exactly* serves the linguistic and communicative context

indicating that the student supports the interviewer's opinion. It can be noticed how thoughts in the discourse follow one another. In the first part, the interviewer voices this opinion, and in the second part the student agrees with the interviewer's opinion. The PM *exactly* is employed to show how the second part is relevant to the first part.

3.To Add more Information and Make the Statement more Clear

Adding information to the discourse in order to make it clearer is one of the functions that the interpersonal PMs fulfil. See the following example, which is taken from an interview with one of the students.

(3)

A: Good afternoon. Can you tell me what is the worst moment in your life?

B: I can't forget the worst moment in my life. It was in 2015. A lot of bad things happened in that year. Our house has been burnt; my grandfather died. *In addition*, I failed in Twajihi exam.

In Example (3), the linguistic item *in addition* is identified as a PM since it is semantically and syntactically optional, so if we remove it, the sentence is still semantically and syntactically correct; however, according to Fraser (1999, p. 944), when the PM is omitted from the context, “the hearer is left without a lexical clue as to the relationship intended between the two segments.” In this example the use of the interpersonal PM *in addition* is to ascertain that the following discourse involves another detail which is added to the previous one and makes the student's utterance much easier to be followed. The cognitive effect is produced because the following part — *I failed in Twajihi exam* — makes the assumption about the bad things that happened in 2015 stronger. The PM is used to be consistent with the linguistic context which is to illustrate his statement about the bad thing. Using the marker *in addition* helps the student achieve his real purpose which is to express the idea about the bad things that happened in 2015.

4.To Stimulate Interaction

Stimulating interaction is considered one important function of interpersonal PMs. In the following example, the speaker talks about her best moment in her entire life and remembers

her answer when she was told that she would travel to Istanbul. It can be noticed that the employment of the PM *after all* in this context expresses an adaptation to the linguistic context. The use of *after all* is important to interpret the utterance and to determine the reaction of the speaker. The employment of this PM shows how the discourse is coherent and connected. *After all* is considered a PM in this context because it is semantically and syntactically optional. See Example (4):

(4)

A: Describe the best moment in your life, please?

B: The best moment in my life when I travelled to Istanbul. My sister phoned me and said: Zahra we will travel next Monday to Istanbul, my reaction was saying: Istanbul I'm coming, *after all*, I will achieve my dream.

5. To Hesitate or Show Repair

There are cases when speakers repair, correct or edit their utterances in the process of communication. In these situations, the speaker usually gives the addressee some hints that he or she will repair his or her words. The PMs are one of these hints. See the following example.

(5)

A: The four pictures below tell a story, study the picture and make up a story around them.

B: Treating the animals in a nice way is a good thing. *I mean* it is very nice to have a dog as friend.

Example (5) is taken from a storytelling activity. It can be noticed that *I mean* is a PM in this context. It is sense that it can occur in a sentence initial position, sentence medial position and sentence final position. It is optional, in other words it can be omitted without changing the proposition of the contents. In Example (5), the PM *I mean* is used to show repair. In fact, there are many studies that shed light on the PM *I mean* and discuss its different functions. For example, Crystal and Davy (1975, p. 90) categorize *I mean* under the category of “connecting phrases” which have a stylistic function. They claim that *I mean* is a type of the connectives which have a “diminishing force” as it rewords or rearranges the meaning of the whole or part

of the discourse which comes after it. They argue that when *I mean* is used as a PM, it can be reworded with the expression “in other words.” Crystal and Davy (1975, p. 97) showed the difficulty of identifying the meaning of this phrase, but they claim that “its main function is to indicate that the speaker wishes to clarify the meaning of his immediately preceding expression. This clarification may stem from a number of reasons and take a number of forms.”

6. To Denote Thinking Process

The interpersonal PMs can play an essential role in denoting the thinking process. This function is illustrated in the following example which is taken from an interview with one of the students:

(6)

A: What is the best film that you have ever watched?

B: *Well*, I have watched a lot of films but the best film is called 47 meters down.

In Example (6), the linguistic term *well* is defined as a PM. It occurs in a sentence initial position; it is optional in the sense that the removal of it in this context will not affect the semantic links between the components of the following sentence. In this example, the PM *well* is used to show that the speaker is searching for a suitable answer for the interview's question about the best film he has ever watched. Jucker (1993, p.447) claimed that the PM is used when the speaker is searching for an answer or for a syntactic completion.

7. To Assess the Interlocutor's Knowledge

There are many PMs that are used to gauge the knowledge of the speaker and hearer. Fraser (1996, p. 333) stated that these PMs “signal the speaker's evaluation of the state of the world represented in the proposition.” The following example is extracted from an interview with one of the students. In this example, the expression *you know* is classified as a PM since it is marginal, optional, flexible, syntactically and prosodically independent. The dying of one of the parents is a very hard moment for any person in the world. In Example (7), the speaker describes that moment when her mother died using the linguistic expression *you know* to adopt the linguistic context which is to explain that moment, the physical context (the day of her mother's dying is the same day of her birthday), the social context (it appears that her mother

means a lot for her as she does not have brothers or sisters), and the mental world (the speaker feels sorry and sad because of this situation).

(7)

A: May you describe the worst moment in your life?

B: Okay. My mother passes away in the day of my birthday. The dying of my mom was the worst moment in my life, I don't have brother or sisters, *you know*. I feel like that my life stopped suddenly; the lights of my life were off.

8.To Act as a Hedging Device

PMs can be utilized as hedging devices in some contexts to add to the uncertainty of an utterance (Yates, 2010; Boncea, 2014). According to Fraser (2010, p. 22), a hedging device is “a rhetorical strategy, by which a speaker, using a linguistic device, can signal a lack of commitment to either the full semantic membership of an expression, ... or the full commitment to the force of the speech act being conveyed.”

In the following example, which is extracted from an interview with one of the students, the PM have been used as hedging devices.

(8)

A: Good morning, may you talk about the best moment or the worst moment of your life?

B: Please excuse me. *I'm not sure* that I can. Talking about the worst moment in my life is very difficult. I hate talking about that moment.

In Example (8), the PM *I'm not sure* is a hedging device. This example is taken from an interview with one of the students who refused to talk about the worst moment in his life, so he employed the interpersonal PM *I'm not sure* as a hedging device to meet the communicative needs of the context, namely refusing to talk about the worst moment in his life. *I'm not sure* is a PM in this context as it has a procedural meaning, not a conceptual meaning. It can be removed without affecting the propositional content of the whole sentence.

9. To Indicate Attitudes and Opinions

PMs can show a speaker's attitude and express opinions. There are numerous ways which speakers can express their attitude towards what they are saying, and who they are talking to. See Example (9).

(9)

A: What is the best film that you have watched?

B: Watching films is my hobby. Let me make my point *absolutely* clear. I can't continue my life without going every week to cinema.

This part is taken from an interview with a student who was expressing his opinion regarding watching films. *Absolutely* in Example (9) works as an interpersonal PM and is used to show the speaker's attitude. From a Relevance theoretic perspective, the student wanted to make the utterance as clear as possible in order for the listener to exert a minimal effort in processing and adopting the linguistic context. In addition, Ali and Mahadin (2015) stated that *absolutely* is used to show certainty about the proposition.

Functions of Textual English PMs

As mentioned earlier, the textual PMs found in the data were used for six communicative functions, as follows:

1.To Mark Contrast

Marking contrast is one of the functions of textual PMs which is found in the speeches of EFL learners. In this function, the PMs are normally used to express a denial or a contrast of a message that is connected with another message in the preceding discourse. For example:

(10)

A: What is the best film that you have watched? Describe its event?

B: The hero was sitting with his wife in the garden and everything was fine, they were planning to go camping as the weather was nice and the sun was shining, *however*, the sky has started raining suddenly and all their planes were cancelled.

Example (10) is taken from the talk of one student about the best film she has ever watched. She was asked to describe the scene. It can be observed that the textual PM *however* was deployed in this context to show that there was a contrast between the first part of the utterance and the second part of it. From a Relevance theoretic perspective, the PM *however* was employed to alert the recipient to the fact that the previous part of utterance has a connection with the next part of the utterance.

2. To Elaborate, Reformulate, and Exemplify

Textual PMs can be used for elaborative functions, i.e., to add more information in order to make a statement clearer for the receptor. In other words, it provides the hearers with an indication that what comes is an explanation and illustration for what was just mentioned before; for example:

(11)

A: Describe the first day at the university?

B: Many ideas came to my mind in my first day at the university. *For example*, I couldn't find the location of my classes, make new friends and pass the placement tests.

In Example (11), the textual PM *for example* is used by the student to make the idea of what he was thinking of in the first day at university clearer to the hearer by adding more information. According to the Relevance theory, the use of *for example* helps the hearer interpret the utterance of the speaker. In other words, the listener will not exert much effort in understanding and interpreting what is meant by the utterance. The student chose *for example* to express her linguistic adaptation towards the context by indicating that what comes is an explanation for what was just mentioned before.

3. To Show Temporal Sequence

Textual PMs have a temporal function. They can be used to express temporal sequences and arrangements of events. In other words, they play a vital role in the coherence of the discourse by establishing links between the various segments. See the following example:

(12)

A: What is the best moment in your life?

B: *First*, I reached my house, phoned my friend and we travelled to Beirut.

Example (12) is extracted from the talk of one of the students. The student was describing the best moment in his entire life and chose the textual PM *first* so as to indicate that the sequence of the events. From the perspective of the Relevance theory, the use of *first* decreases the hearers' processing effort in determining the time of the event and interpreting the speaker's utterance. The term *first* can be omitted without affecting the propositional content at all; however, the hearer may face some obstacles in understanding the correct arrangement of the events.

4. To Indicate an Inferential or Conclusive Relationships and Summaries

PMs can play a vital role in indicating an inferential or conclusive relationships and summaries. See Example (13):

(13)

A: Can you talk about the best film that you have ever watched

B: After the death of his best friend, he was fired from his job, his house has been stolen, his girlfriend left him alone, **so** he committed suicide.

The student here describes the events of the best film he has ever watched. The use of the textual PM *so* in this context signals that the following discourse is a conclusion that the speaker draws, depending on the proposition of the previous discourse. In other words, the student first describes in detail the bad conditions and circumstances that the hero was living in, then *so* is used to show the hearers that he is making a conclusion or a summary.

5. To Signal Shifts or Transition of Discourse, Continuation of Discourse

Signalling shifts or transitions of discourse is one of the functions that textual PMs express. Sacks et al. (1974) state that "[o]nce a state of talk has been ratified, cues must be available for requesting the floor and giving it up, for informing the speaker as to the stability of the focus of attention he is receiving" (1974, p. 697). Schiffrin (1987) declares that the PM *so* works in

the organization of transitions. She claims that transitions in participation have two features. There is a shift from the speaker to hearer, or the speaker shifts responsibility to hearer. The next example from an interview with one of the students illustrates so marking a transition:

(14)

A: Can you talk about your first day at the University?

B: The first day at the university id unforgettable and strange, I agree with you.

A: yeah

B: everything was so strange at the beginning.

A: it is.

B: I don't know why, even the students were very strange also.

A: mm yes

B: *so*

A: yeah

B: I noticed that *so*.

A: you have a bad memory about your first day at the university.

B: Yeah

In the example above, the student tells the interviewer about his first day at university. He mentions some issues related to the university. It can be observed that he did not only use the PM *so* to indicate a transition but also uses it to lengthen it. The textual PM *so* in this context was used to demonstrate the speaker's desire to relinquish his turn and hand the floor to the hearer who is the interviewer in this context. It is a point where the speaker wants to exchange the turn with the hearer. According to Lam (2010), "[s]o can indicate the speaker is willing, or more directly, encouraging the addressee to take the floor" (p. 670).

6. To Signal Opening or Closing of a Discourse

Textual PMs can be used to open or close discourse. In the following examples *that's all* is used by many students to indicate that they are done with their ideas.

(15)

A: The four pictures below tell a story, study the picture and make up a story around them.

B: They took the bubby to their home, looked after it, fed it and *that's all*.

The example above is extracted from the narration of one of the students. He was doing the storytelling activity. The student used the textual PM *that's all* to tell the interviewer that he finished the narration. In other words, he used this PM to close the discourse. The use of this PM in this context thus shows a linguistic adaption as it achieves the communicative needs of the context which is to closing the discourse.

6. Conclusion

There are three major findings that can be deduced here. The first is about the use of PMs by Jordanian EFL learners, the second is about the functions of textual and interpersonal PMs used by the students and the third is related to the differences between males and females in using PMs. With respect to the first, the study has shown that the PMs that are used by Jordanian EFL learners are as follows: *so, and, you know, in addition to, like, but, I think, for example, because, then, however, such as, after, in the end, that's all, well, yeah, and then, finally, that is, I mean, first of all, first, secondly, basically, exactly, absolutely, I'm not sure, right, really, you know what I mean, or, totally, sure, and okay*. These PMs are classified into textual and interpersonal PMs based on the contexts. It can be noticed that some PMs occur as textual PMs in some contexts and in other contexts as interpersonal PMs such as *and* and *okay*. As for the second conclusion, the study has revealed that the functions of textual PMs are marking contrast, elaborating, reformulating and exemplifying, showing temporal sequence, indicating an inferential or conclusive relationships and summaries, signalling shifts or transition of discourse and continuation of discourse, signalling the opening or closing of opening or closing of discourse and that the functions of interpersonal markers are signalling receipt of information, showing support to the interlocutor, adding more information and make the statement more clear, stimulating interaction, hesitating or show repair, denoting thinking

processes, assessing the interlocutor's knowledge, acting as a hedging device, and indicating attitudes and opinion. The third conclusion is that the study has found the most frequently used PMs were *and*, *so*, and *but*, while the least frequently used PMs were *basically*, *yeah*, and *well*. To examine the differences in using textual and interpersonal PMs due to gender, independent t-test was used, setting the significant point at $\alpha < 0.05$. The study has revealed that there was no significant difference between males and females in using textual and interpersonal PMs.

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Students as Partners in Learning and Teaching: Assessing the Effectiveness of Student Evaluation of Teaching

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Abstract

Students engagement in learning and teaching is necessary to enhance academic practices which provides mechanism to support the development and enhancement of learners and teachers' partnerships. In the rapidly changing world, Student Evaluation of Teaching (SET) could provide an opportunity to coproduce and develop effective teaching and learning strategy for sustainable education in universities. Most higher education providers in the UK have adopted SET, as it measures the effectiveness of teaching and learning and provides guide for changes in the course materials, methods of delivery and assessment procedures, to enhance students experience and engagement. However, poorly designed questionnaires and inability to reflect students' perceptions and expectations in the SET fail to fulfil the real purpose. This action research used a revised SET questionnaire based on the discussions with the lecturers

and the students within a university setting to understand their expectations and engagement in completing the questionnaires. Although the consensus was to use SET to evaluate and improve teaching and learning to enhance the quality of the course, the students raised concerns about the feedback loop and implementation of the feedback received through SET. This was believed to be the barrier in motivating students to fully participate in the process of evaluation. The open and transparent discussions with students about the evaluation process and the importance of students as partners in learning and teaching and including SET as part of the lesson plan allowed teachers to promote engagement of students in this evaluation process.

Keywords: *Partners in learning; Student evaluation of teaching; higher education; action research; teaching and learning*

Introduction

‘Students as partners in learning’ is becoming an increasingly important principle of teaching and learning strategy within the universities in the United Kingdom (UK). The principle highlights the value of student and staff partnerships in creating inclusive curriculum and delivering high quality education and outcomes. Student evaluation of teaching (SET) is a normal routine process across the UK higher education and is one of the major ways towards strengthening student-staff partnership where students are provided with an opportunity to evaluate the course contents and the teaching on the course as well as their engagement and dedication towards the course (Rowley, 2003). The introduction of higher tuition fees within the UK higher education has increasingly created a notion of students as consumers (Streeting and Wise, 2009), where consumerism attitudes have contributed towards expectations among these groups that they deserve higher grades and better experiences to achieve customer satisfaction. An appropriate SET would provide information about students’ satisfaction levels in the context of the learning on the course, and these feedbacks can be used to further improve the quality of teaching and learning within the higher education settings (Wong and Moni, 2014).

The participation of students in teaching and learning is essential towards building partnership, reflecting their perceptions about the course and teaching as well as towards enhancing their learning experiences. In this context, the aim of this research is to strengthen students’ partnership in teaching and learning using ‘Student Evaluation of Teaching (SET)’. This study applies action research methodology to achieve this by engaging with students and lecturers to

understand the expectations from SET, which allows the author to prepare a revised SET questionnaire to reflect these expectations. It was found that students were more likely to engage with the module evaluation questionnaire that were simple, clear, non-repetitive and short. Students highlighted that it was important for them to be partners in learning and therefore expected to be informed about the whole process of SET and how they would benefit from the process. The study asserts the need for SET to be an interactive process with students as partners in learning to enhance their teaching and learning experience rather than merely an administrative process.

Students as partners in learning

Students as partners in learning and teaching is one of the key agenda implemented by most of the universities in the UK. Students through representation, engagement and partnership play an important role in improving students experience and delivering excellent education and outcomes (CCCU, 2015-20). Students as partners in teaching and learning is a process through which students engage with academics, professional services, senior managers, students' unions and other stakeholders to integrate their voices in the process of learning to improve and enhance student experiences at the university (Healey, Flint and Harrington, 2014). The framework for student engagement through partnership provides mechanism to support the development and enhancement of the partnerships, which is important for student learning, staff engagement, transformation and sustainability in the higher education (HEA, 2015). However, this partnership is often seen as immature and raises various concerns since students are perceived as neither disciplined nor experienced in sustaining these partnerships (Healey, Flint and Harrington, 2014). Additionally, students, staffs and senior management teams have different motivations and expectations for engaging in partnerships, which give rise to tensions around differentials in power, recognition of participation, identity and responsibility for partnership working (Fraser and Hack, 2015). Moreover, the UK higher education is being developed by using the market approaches where students are paying higher fees and there are worries over the 'value for money', which is increasingly creating a notion of the student 'as consumer' (Streeter and Wise, 2009). Students in the UK are increasingly seeing themselves as a customer than a learner and the consumerism attitudes and behaviour of students in relations to the higher education set their expectations towards receiving higher grades to achieve customer satisfaction however, it makes them to search for their learners' identity which

limits their engagement in teaching and learning leading to lower academic performances, since higher consumer orientation is associated with lower academic performances (Bunce, Baird and Jones, 2016). The partnership between students as ‘customers’ and institutions as ‘service providers’ are presented with multiple barriers because of their conflicting interests and expectations within the partnerships and lack of clear understandings towards a common agreed goal. This results in limiting the teaching and learning experiences for students in higher education.

McCulloch (2009) argues that ‘students as consumer’ signifies partial understanding and does not fit to the realities of contemporary higher education. Students should be seen as ‘co-producers’ where students, lecturers and other stakeholders involved in teaching and learning process are seen as being engaged in a cooperative enterprise focussed on the production, dissemination and application of knowledge towards the development of learners rather than a skilled technicians (McCulloch, 2009). Students engagement and partnership is essential towards the production of knowledge and students should not be treated as passive recipients of the service. As co-producers in learning and teaching, students have shared responsibilities for identifying the problem or opportunity for improvement and play key role in addressing the issues with co-delivery of the solution. This could bring numerous benefits to all the stakeholders involved, which includes increased satisfaction amongst learners and academic staff, reduced student anxiety, greater understanding of learner needs, improved teaching and learning experiences as well as improved educational outcomes (Streeting and Wise, 2009). It is important for learners and staffs to develop a sense of community and belonging as well as align themselves with their personal beliefs and values about learning and teaching to design and deliver to the agreed goal of improving student learning experience and educational outcomes. This needs to be achieved through engagement offering constructive alternative to the consumerist models of higher education. The coproduction and development of inclusive curriculum with regular communication between the partners to achieve the agreed shared goals based on the values of openness, trust and honesty will enhance the partnership and develop mature relationship with mutual respect between students and staffs.

Student Evaluation of Teaching

Student evaluations of teaching (SET) are integral part for the development of effective teaching and learning strategy in the UK higher education. SET is considered as an important

evaluation process as it measures the effectiveness of teachers as well as provides guide for potential changes in course materials, methods of delivery and assessment procedures (Shevlin et al., 2000). SET is used as a measure for students' attainment of learning outcomes, effectiveness of teaching as well as partnership in improving and designing curriculum (Denson, Loveday and Dalton, 2010). Rowley (2003) describes SET as one of the important components for quality assessment. However, Kember, Leung and Kwan (2002) assert that there is little or no evidence that shows the use of evaluation questionnaire contribute towards improving the quality of teaching or students learning experiences, at least this is what is perceived by students (Blair and Noel, 2014). Malouff and colleagues (2015) suggests that SET is a useful resource in revising the instructional pedagogy (Huybers, 2014), if conducted systematically and effectively. SET remains a keenly debated issue and yet is one of the most prevalent practices in the higher education to evaluate teaching performances (Catano and Harvey, 2011; Surgenor, 2013).

Given the significant importance of SET, there is a genuine concern about whether the information collected as result of evaluation has the potential to be used for the wider purposes. The validity of SET information is often debatable, since the evaluation of courses is based on student perceptions of clarity, quality and ability (Spooren, Brockx and Mortelmans, 2013; Surgenor, 2013; Blair and Noel, 2014; Reisenwitz, 2016). It is assumed that the students are more likely to complete the questionnaires positively if they had a positive personal and/or social view about the lecturer, which may not correspond to the actual level of teaching effectiveness (Shevlin et al., 2000). Zabaleta (2007) describes that student evaluations show complex relationships between students and teachers and asserts that the components of this relationships remain unclear. SET can be influenced by various factors other than teaching ability or course design such as student characteristics, subject area, level of course or the physical environment (Rowley, 2003; Fah and Osman, 2011; Surgenor, 2013). Although students' feedback provides rich insight on the effectiveness of the course and teaching (Blair and Noel, 2014), validity and reliability of SET are highly complex and controversial with contradictory findings towards its effectiveness towards teaching and learning (Gursoy and Umbreit, 2005; Spooren, Brockx and Mortelmans, 2013). The findings and interpretation of outcomes of SET plays an important role in determining the reliability and validity of the student evaluations, which then helps to improve students experience and effectiveness of teaching and learning (Boysen, 2016).

However, many of the SETs are ill-designed that does not fulfil the real purpose of this activity and the outcomes does not reflect student's perspectives about the course or the lecturers or teaching/learning (Penny, 2003). The issue of poorly designed questionnaires and inability to reflect students' perceptions and expectations are widespread throughout the universities (Leckey and Neill, 2001). This is because most SETs adopted by faculties are simply developed through expert opinions, which do not necessarily measure the important components relevant to the students within that faculty (Catano and Harvey, 2011). Jackson and colleagues (1999) suggests that the excessive numbers of items on the evaluation sheet and duplication of information collected can become tedious and may influence the real purpose of the SET hindering the effectiveness evaluation process. Moreover, SET only becomes an effective tool for learning and teaching strategy if the feedback and data received from the students are considered seriously among relevant stakeholders and with an appropriate action plan to enhance students experience and improve the quality of teaching practice (Wong and Moni, 2014).

The changing political and educational landscapes in higher education have raised the demands for the evidence of quality of teaching (Surgenor, 2013). The introduction of higher tuition fees has brought up many challenges for the UK universities and has put students experience at the centre of all strategies. The ambition of making teaching and learning inclusive requires commitments towards engaging with students in such a way that they feel part of it. Alok (2011) explains students are best placed in the classroom to observe the performance of the lecturer and what is being delivered, making SET an important instrument to measure the effectiveness of teaching and learning. There is a need for students to get involved in the development of the SET questionnaire rather than just taking part in the evaluation process (Catano and Harvey, 2011). This would build an inclusive learning environment where both students and tutors are responsible for creating and improving the curriculum. Additionally, there is a need to have clear expectations from such evaluations and this needs to be explicit to students. If the aim is to make student as the partners in driving forces behind the improvement of higher education practice, the findings from SET needs to be disseminated and responded adequately and in timely manner aiming to address the issues. This will contribute towards the trust building and partnership between the service providers (universities) and the service users (students).

Methodology

This research study used action research to establish students as partners in learning and teaching to measure the effectiveness of student evaluations of teaching (SET). Savin-Baden and Major (2013) describes action research as a method of qualitative research to engage in a problem-solving exercise through a cyclical process of thinking, acting, data collection and reflection. Holloway and Galvin (2017) suggests that action research is a collaborative and participatory approach collecting data and information from a range of sources that is more than a mere production of knowledge about the problem and involves situations where change is necessary or desirable, and researchers employ interventions to improve practice considering power relationships in the setting. This research study adopted the three steps of Kemmis and McTaggart's (2000: 595) action research spiral, which includes planning for change; acting and observing the process and consequences of the change; and reflecting on the process. Following the completion of the reflection, the spiral continues with the planning process.

The university already uses the SET questionnaire which captures six key areas through fifteen scaled questions. These six areas included achievement of aims, module content, learning and teaching, assessment guidelines, support and supervision, and evaluation. and another six areas through additional comments, which overlaps with each other. Five of these key areas had 2 scaled questions which the learning and teaching encompassed five scaled questions. The other side of the page was used for 'any further comments' which were again divided on the abovementioned six key areas so that students were able to add any free comments on these selected areas. I felt this original SET questionnaire shows limitations in demonstrating engagement and dedication towards students and staff partnerships. The excessive number of items and duplication of information collected within the current questionnaires undermine the achievements of this process and creates confusion among students and makes the process more tedious. I felt there was a need to engage with students, lecturers and other stakeholders to understand their perceptions about the expectations from such evaluations so that the feedback received through this process could become inclusive and contributes towards positive change in teaching and learning. It was necessary to have the SET questionnaires in accordance with the learning and teaching strategy, following a simple model of 'students as partners – conceptual model' (Healey, Flint and Harrington, 2014) that meets the expectations of both students and the faculty. This is where I started my planning stage of the action research spiral process.

In the planning stage of the action research, I engaged with students, lecturers and other stakeholders who were responsible for listening to the student's voices and maintaining the quality of the course. I engaged with first and final year undergraduate students to discuss about their experiences and perceptions of the original SET questionnaire. The selection of first and final year students provided opportunities to place student's understandings and expectations of SET at opposite end of the continuum, where first year students shared their enthusiasm for the change through completing SET questionnaires. Whereas, final year students looked disappointed, as they did not believe SET was used to listen to their voices as per their initial expectations when they joined the higher education. Additionally, the selection of first year students provided an opportunity to collect information from students who has little experience of completing the student evaluations compared to the third year students who has completed several rounds of these original questionnaires and were in better position to share their experiences from SET. In addition, the initial discussions with lecturers and other stakeholders mostly focussed on the importance and expectations from the SET and how this contributed towards student's experience. The discussions also gathered information around how the original SET questionnaire could be revised to better achieve the outcomes that fits to the learning and teaching strategy of the university. The researcher provided sticky notes to the students, lecturers and other stakeholders to write their perceptions and experiences and also made notes during these discussions. The sticky notes were collected for the analysis purposes.

The information collected from these discussions, together with the reflection from the researcher, who was one of the lecturers teaching those students, formed the basis for designing a new revised SET questionnaire (Appendix 1). The revised SET questionnaire included a total of 15 scaled questions measured on Likert scale [Definitely agree (5), Mostly agree (4), Neither agree nor disagree (3), Mostly disagree (2), Definitely disagree (1)] and three short answer questions that focussed on what they like about the module, any suggestion to improve the module and any other additional comments that was not captured within these questions. Although the total number of scaled questions remained same as the original SET questionnaire, the questions were revised to provide clarity and reflect the expectations from the students and other stakeholders. The duplication of open questions was revised to just three to make the evaluation process engaging and less tedious (Jackson *et al.*, 1999). The addition of questions recording information about students' dedication towards the module and suggestions to improve the module would make them feel as part of the process and equally responsible in enhancing the learning and teaching experience on the module. All the questions

were presented on just one side of the A4 page paper, unlike both sides with original SET questionnaire, achieving the psychological advantage for students, as they perceived it as a shorter SET questionnaire. The revised SET questionnaire was developed prioritising the expectations of the students that they seek to evaluate to improve their teaching and learning experiences as well as to meet the expectations from the university to improve the quality of teaching and the course. The aim was to develop a SET questionnaire that is presumably simple, clear, short and overcomes the issue of duplication so that it increases students' engagement by capturing their perceptions and motivations towards the course. This would help students to partner and reflect on their teaching and learning process and coproduce an opportunity to enhance their overall positive experiences in achieving outstanding education and outcomes.

The second stage of the spiral action research was to act and observe the process to understand the consequences of the change. Acting of the process was achieved through the implementation of the revised questionnaire and then the result of this implementation was observed. I again selected the first and final year undergraduate students, who were involved in the initial discussion that contributed to the development of the revised SET questionnaire, for the purpose of this implementation. I decided to hand in both the original and revised SET questionnaire to these students in the same session, which was last teaching week of the semester. I handed in the original SET questionnaire (unplanned) at the start of the session and asked students to return the completed SET questionnaire before the first break, which was 75-minutes after the session has started. However, for the revised SET questionnaire, I allocated a 15-minute time slot towards the end of the session in the lesson plan. Alongside the revised SET questionnaire, I also distributed some sticky notes so that students could write about the perceptions of the revised SET questionnaire. This 15-minute timeslot was also used by the researcher to discuss and capture students' reflections about the revised SET questionnaire. The researcher made notes during these discussions and collected the sticky notes for the analysis purposes.

The final reflection stage of the spiral action research is used to present the findings of this research. The effectiveness of the new SET questionnaire is compared with the original SET questionnaire and its result is presented in the frequency and percentages. All the discussions with students, lecturers and other stakeholders were categorised under the themes reflecting the key aspects of teaching and learning and some of the key point are highlighted within the finding section.

Ethics

The ethical approval for this study was received in accordance with the Canterbury Christ Church University's guidance for the students on the Postgraduate Certificate for Academic Practice programme. All the participants were informed about the issues of privacy and confidentiality and researcher has ensured to maintain anonymity of the research participants. The time slot for the data collection was embedded in the lesson plan to signify the importance of students as partners in learning. This offered reciprocity in strengthening the partnership of students in the teaching and learning process. The discussions on learning experiences provided opportunities for students to raise their concerns with autonomy to their expressions in a respectful manner. This also provided an opportunity to treating all students equitably in raising their voice to enhancing their students experience at the university. This research project was built on the existing practice of "end of module questionnaire", which is an important component of the module and programme to maintain delivering quality education. The project did not seek to do anything different from what is the standard procedure. This minimised any potential disruptions, risk or harm to the participants or their study.

Findings

The findings from this research study is presented in two sections: i) Pre-implementation; and ii) post-implementation.

Pre- implementation

The pre-implementation findings came from the initial discussions with students, lecturers and other stakeholders that led to the development of revised SET questionnaire. Table 1 and 2 shows themes and quotes from the Year 1 and 3 Undergraduate students and the lecturers and other stakeholders respectively.

Table 1: Findings from year 1 and 3 undergraduate students

Themes	<i>Year 1 Student</i>	<i>Year 3 Student</i>
Long, confusing and duplication	<i>This (Original SET) is not very clear and we get confused about what is being asked. It's the same thing on both sides of the paper</i>	<i>This form is too long and the questions are not very clear.. I have not submitted my work for this module.. how can I get constructive</i>

		<i>feedback.. the questions here should be clear and relevant to our experience</i>
	<i>It is too long. There are so many questions and too many answers to write about. We do not feel writing about the same thing what we have already ticked in the boxes</i>	
	<i>This evaluation sheet is very boring and lengthy. It needs to be a little colourful, short with clear questions</i>	
Effectiveness and Expectations from SET	<i>It is necessary to hear our voices, but we wonder if they take this thing seriously. How can we find this?</i>	<i>This is a good process where we can share what we felt about the module but no one pays attention to what we say. We don't know how our feedback will be or has been used.</i>
	<i>It is not straight forward. It does not reflect anything about what we feel. I don't find it useful and it does not change anything.</i>	<i>Completing this form is not going to change anything for us now, we are in final year. We have filled so many of these forms and still we don't know what is being done about it.</i>
		<i>There are different expectations from different lecturers. If we like the lecturer, we may fill it nicely or we will just tick the boxes. Many times, we do not even read the questions we just tick the boxes randomly</i>
Timing	<i>It depends when they give us this form. When they give us towards the end of the class, we are rushing to go home and we don't even read the</i>	

	<i>questions while ticking the boxes. We don't bother to write anything</i>	
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Table 2: Findings from lecturers and other stakeholders

Quality assessment	<i>This (SET) is a student led process and the outcomes need to be part of annual programme monitoring</i>
	<i>Module evaluation is important for module report which then forms part of the annual programme monitoring</i>
	<i>Students are more likely to express their concerns through the module evaluation which sometimes help tutors to make informed decision about minor modification for the module</i>
Student's voice	<i>Students should be given maximum opportunity to complete the evaluation questionnaire and the outcomes of this (SET) needs to be shared with the students</i>
Non-completion	<i>Non-completion is the major issue, even the completed questionnaire most often will not have any additional comments</i>
Duplication	<i>I agree there are overlapping areas, but the comment section provide opportunity for students to write about their experiences in details, which they can't do with the tick box</i>

Post- implementation

The post-implementation findings present the effectiveness the revised SET questionnaire and compares this with the effectiveness of the original SET questionnaire. It also presents the perceptions of the students about the revised SET questionnaire. The completion rate for the revised SET questionnaire for year 1 students were 100%, with 66.67% answering the short questions compared to only 80% completion for the original SET questionnaires, with 41.67% of those completing short answered questions. Similarly, the completion rate for the revised SET questionnaire for year 3 students were 94.5%, with 53% of those answering short questions compared to 89% completion for the original SET questionnaire, with only 25% answering the short questions. The combined completion rates for the revised SET questionnaire were 97 % compared to around 85 % for the original questionnaire. If the short answer questions were considered, only 32% of the total students answered the short questions

in original SET questionnaire compared to 60% of the students answering short questions in the revised SET questionnaire (See Table 3).

Table 3: Effectiveness of the revised and original SET questionnaire

	Revised questionnaire		Original questionnaire	
	Completed	Short answers	Completed	Short answers
Year 1	15/15 (100%)	10/15 (66.67%)	12/15 (80%)	5/12 (41.67%)
Year 3	17/18 (94.5%)	9/17 (53%)	16/18 (89%)	4/16 (25%)
Year 1 and 3 (Combined)	32/33 (97%)	19/32 (59.37%)	28/33 (84.85%)	9/28 (32.14%)

The students were mostly positive about the revised SET and some of the perceptions and reflections from the students are presented below.

“This is much better and short - just one page, not too much to write. This is really good but still we don’t think this will be taken seriously”

“Having the time slot is very good, this means we can complete this but then I would rather prefer the way we are talking about it. Discussing about any issues possibly mid-way through the module would be much better because it will give opportunity to address any issues.”

“This is good but it would be good to have it online and we should get some rewards like print credits for completing this.”

“This is good but we need to know how this is going to benefit us in our learning experiences.”

“This is good but we need to know that our feedback is taken seriously. We should be made aware about how it contributed to any changes”

Discussion

The findings from this action research demonstrated that SET is an important exercise for both the students and the lecturers and has the potential to become a barometer for teaching

improvement promoting quality of learning environment and ensuring students as partners in teaching and learning (Surgenor, 2013). The findings suggest that the expectations from SET looked different for both groups with some common interests in terms of student's engagement and measures for teaching and learning experiences. The lecturers and other stakeholders expected students to be partners in teaching and learning and emphasised that student's voice should be heard and they should be made aware about the outcomes of SET as well as any changes that has been done as a result of the SET evaluation process. However, these groups were also focussing more on the quality assessment and the requirements to meet the university process. Students, on the other hand, were cynical about the whole process of evaluation, as the feedback loop was often not clear, and this often affect the reliability and validity of the findings from SET (Burden, 2009). They believed it was just a process to demonstrate students' engagement, but the outcomes do not make any difference in their teaching and learning experiences. Although most of the universities would have a policy that states the feedback from the SET is required to be shared with students via online portal or through student- staff meetings, students are not always aware about this process of dissemination. The differences in expectations and effectiveness of the SET were seen as barriers in motivating students to fully participate in the process of evaluation.

The research highlighted concerns about clarity over the purpose of SET, whether SET was used for measuring the variables of teaching effectiveness or that of the courses to maintain the quality. Moreover, there is a need to consider if SET is measuring only some variables that is easily measurable and leaving out many other variables that is hard to measure. Completing the evaluation questionnaire without having an appropriate knowledge about the process of evaluation and its importance in improving teaching and learning experiences disconnect the students from engaging into the process of SET. It is important to make it explicit that the system of student evaluations is important at the institutional level, which gives power to the students' voice through addressing the issues from this feedback (Cook-Sather, 2006; Blair and Noel, 2014). The study highlighted the needs for clarity over the process of evaluation, as well as different stakeholders need to understand the expectations from the process. There is also a need to share any achievement from this process with all the stakeholders. This will increase the engagement as well as improve the effectiveness and reliability of the information collected through SET.

Students were also concerned about the excessive number of items on the SET questionnaire (Jackson *et al.*, 1999), which was unclear, repetitive and irrelevant to the personal experiences

of their learning. The poorly designed questionnaire, which does not reflect the perceptions and meet the expectations of students, is not useful to fulfil the real purpose of the SET (Leckey and Neill; Penny, 2003). On the contrary, redesigning the questionnaire to make it short and simple increases the response rate of the evaluation questionnaire. Limiting the short answer questions increases the engagement of the students in sharing their short experiences in just two categories “what they liked about the module” and “what are their suggestions for further improvement”. In addition, presenting all the questions on just one side of the A4 paper achieved the psychological advantage for students, as they perceived it as a shorter SET questionnaire.

The openness with students and personality of the lecturer were other factors that contributed towards student’s engagement with SET (Fah and Osman, 2011; Patrick, 2011). However, this also raised questions about the reliability and validity of the information collected from SET, therefore it should be used as a formative feedback and be combined with other research before making a basis for the overhaul of the module (Zabaleta, 2007; Spooren, Brockx and Mortelmans, 2013).

Additionally, including the evaluation as a part of the lesson plan was seen as an effective way to engage students in the evaluation process. The systematic collection of the feedback through SET and creating an effective action plan to release the response in timely manner by letting students to know what actions has been taken will ensure students at the core of teaching and learning (QAA, 2013), which will further increase the participation of students in the SET. This would possibly make them feel that evaluation is part of the teaching and learning and provides an opportunity to reflect on the experience of the module.

Conclusion

SET is an important instrument through which students can become partners in teaching and learning where students are seen as co-producers of the curriculum rather than the consumers of the curriculum. To achieve this, students need to be part of the development of the SET where they share their perceptions and contribute to the designing of the SET with clear questionnaires that meets the expectations of the students. Students as partners in developing SET will also contribute towards improving the reliability and validity of the information, as this will be a student led process which will make them more engaged in the evaluation process. The systematic collection of the feedback and creating an effective action plan to release the

response in timely manner by letting students to know what actions has been taken will ensure students remain at the core of teaching and learning. This will further increase student engagement with SET and will enhance their teaching and learning experiences.

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Appendix 1:

[University Logo – Name of the University]

END OF MODULE QUESTIONNAIRE

Module:	Date:
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Please complete this questionnaire by ticking the box, which most readily corresponds to your feelings or opinions about this module [**Scale: Definitely agree (5), Mostly agree (4), Neither agree nor disagree (3), Mostly disagree (2), Definitely disagree (1)**]

	Questionnaires	5	4	3	2	1
1	Module was well organised and structured					
2	Learning outcomes were clearly stated, addressed and achieved					
3	Module has provided me with opportunities to explore ideas or concepts in depth					
4	The teaching was clear, informative and effective					
5	Staff used varied teaching activities					
6	I felt fully engaged with this module					
7	The library resources were adequate for the module					
8	The e-learning resources (e.g. Blackboard) were adequate for the module					
9	The assessment guidelines were clear and informative					
10	The criteria used for marking have been made clear in advance					
11	I have received sufficient advice and guidance in relation to this module					
12	Staff has been helpful and approachable					
13	This module has challenged me to develop my thinking					
14	The module enabled me to develop skills that will help my employability and career development					
15	Overall, I am satisfied with the module					
16*	What I liked most about this module and how did it contribute to my development?					
17*	My suggestions for improving this module					
18*	Any additional comments (If you have disagreed to any questions, please explain)					

*Write your experience and use other side of the page to fit in your answers.



Pedagogy in Post-COVID-19: Effectiveness of Blended Learning in Higher Education

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Abstract

COVID-19 has changed the complete phase of the education sectors. The COVID-19 pandemic situation has impacted the entire education system, especially universities, and brought a new phase in education “blended learning.” The research objective was to study the relationship of eight independent factors: direct instructions, focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform on effective blended learning in higher education after COVID-19 pandemic. An inferential statistics cross-sectional study was conducted on the 221 students of higher education institutions in the Kingdom of Bahrain with a questionnaire to learn the students’ perception of blended learning. A Structural Equation Modelling approach was used to find a positive relationship between the eight independent variables with effective blended learning. The study results represent a positive relationship between eight independent variables and effective blended learning. Hence, higher education institutions need to focus on the variables: direct instructions, focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform to enhance effective blended learning. The research offers guidance to the governing body, administrators, and teachers of higher education institutions in decision-making and improves their actions to provide the best teaching through blended learning. On top, blended learning provides an opportunity for students’ satisfaction and encourages more in-depth learning. The research explored the factors affecting the effectiveness of blended learning in post-COVID-19, and further research brings the performance level of blended learning in the post-COVID-19.

Keywords: *Effective Blended Learning, Students, Teachers, Higher Education, Post COVID-19*

Introduction

Higher education institutions provide flexibility in learning with originality and revolution. The education method has revolutionized traditional structure to the contemporary teaching and learning structure due to technologies' evolving nature. The traditional structure is a teacher-centered approach (Matsuyama et al., 2019), where the teacher is actively involved in teaching

while students listen and follow the teacher's instruction. Simultaneously, the contemporary structure is student-centered learning (Keiler, 2018), also known as the learner-centered approach. In this approach, both the teacher and student actively interact with the teacher and the peer students. Learning skills can be enriched by incorporating technology with the student-centered approach. Moreover, modern technology helps to implement online education in higher education institutions. Nowadays, numerous educational organizations, mainly higher education, adopt online education (Fawns et al., 2019). Online education facilitates the working people to attend classes during their spare time and when they do not have work.

COVID -19 has changed the complete phase of the education sectors (Zhu and Liu, 2020). At the global pandemic situation, teachers, students, and higher education institutions' management aim to address the education system (Daniel, 2020). In March 2020, the Centers for Disease Control and Prevention has issued guidelines on alternative teaching methods to communicate the students' class works and assignments (CDC, 2020). COVID -19 pandemic situations have obstructed the entire education system. Henceforth, universities and schools brought a new phase in education, “e-learning,” to mitigate catastrophic events (Favale et al., 2020). Though adopting e-learning is a challenge for the teachers and students (Kuhad, 2020), academicians incorporate this phase of e-learning by equipping the gadgets and internet facilities for the smooth flow of e-learning. Numerous virtual classroom applications such as ZOOM, Cisco WebEx meetings, Schoology, BigBlueButton, and blackboard play a vital role in the fundamental shift from the traditional classroom to the virtual classroom and e-learning system (Stone, 2020). Furthermore, higher education institutions adopt e-learning to mitigate face-to-face classroom teaching challenges since there is a relationship between students' motivation and e-learning (Harandi, 2015).

E-learning delivers many positive impacts on university students, such as student engagement, confidence, responsiveness, curiosity to learn, and learners' motivation (Dumford & Miller, 2018; Hu et al., 2017). Appropriate e-learning materials and supporting materials must enrich the students' analysis, critical thinking, and problem-solving skills (Sangsawang, 2020). However, students should be guided to use the high-quality learning materials available in the open educational resources (Daniel, 2020). Additionally, the course content of e-learning should be organized to have ease of access. However, due to the lack of understanding of the contents' learning materials, accessing online learning material will be difficult (Bovill, 2020;

Bovill and Woolmer, 2018). To mitigate these kinds of problems, the teachers develop an interactive e-learning platform with visual aids (Marutschke et al., 2019; Tomas et al., 2019).

Blended learning is a combination of online and face-to-face instruction, broadly utilized in higher education (Graham, 2015). Moreover, the new blended learning method includes contemporary practice in higher educational institutions (Norberg et al., 2011). The pace of innovation and accomplishment of blended learning is fast in higher educational institutions' teaching and learning processes (Hofmann, 2011). Further, blended learning in higher education institutions needs the effective use of technology, learner characteristics, and participants' commitment (Millichap and Vogt, 2012). Computer competency, social support, family support, workload management, age, gender, and attitude play a vital role in blended learning in higher educational institutions (Kintu and Zhu, 2016). Added to it, innovative pedagogy and instructional design in teaching and learning support the blended learning in the higher educational institutions (Reisetter et al., 2007).

The technological background and traditional teaching style support the higher education sector for continuous improvement. Further, technological support needs financial support to transform blended learning from the traditional teaching and learning system (Darling-Hammond et al., 2020). Also, it is essential to have a curriculum alignment in blended learning. Blended learning with writing, reading, numerical, and logical skills enhances education in the competitive environment (Madani, 2019). Therefore, the research study analyses eight independent variables: Direct Instructions (Thai et al., 2017), Focus on Mastery (Zhonggen, 2015), Game-Based Learning (Holbrey, 2020), Global Connections (Hilliard, 2015), Peer to Peer Coaching (Vaughan et al., 2016), Project-Based Learning (Vidergor et al., 2015), Technological Integrations (Turugare et al., 2020), and Virtual Learning Platform (Dhawan, 2020) to enhance the blended learning. The research aimed to find the relationship between variables and the effectiveness of blended learning. The research model was developed based on previous ideas from indexed journals, research discussions, published data, and practical experience. The statistical analysis performed the research based on students' perspectives and concluded with future research ideas.

The study aimed to determine the importance of effective blended learning in higher educational institutions and its significance after the COVID-19 pandemic. Further, the research focused on utilizing technology to satisfy the students' expectations and quality of

education. The research is limited to the Kingdom of Bahrain. The research outcomes will support the university's decision-makers, government policy-makers, teachers, and students in framing guidelines for effective blended learning. The study intended to identify the effective blended learning in the higher educational institutions from the perspective of the students; several researchers highlighted the vital role of direct instructions, focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform factors in the effective blended learning. Also, some researchers reported effective blended learning from the students' perspective. However, studies related to Bahrain students' effective blended learning, specifically in the higher educational institutions after the COVID-19 pandemic, are limited. So, the study aimed to address the research gap. Some of the blended learning concepts in the higher educational institutions are tackling the quality delivery of education (Thai et al., 2017; Zhonggen, 2015; Holbrey, 2020; Hilliard, 2015; Vaughan et al., 2016; Vidergor et al., 2015; Turugare et al., 2020; Dhawan, 2020). Reviewing the existing studies helps to get insight into the study and find the variables of effective blended learning and utilize the variables in improving the quality of education.

Literature Review and Hypothesis Development

The empowerment of direct instruction in incorporating, carving, and generating different ideas and practices in developing significant blended learning activity in higher education (Kebritchi et al., 2017). The authors (Ellis and Goodyear, 2010) suggested that direct instructions provide accurate and timely feedback. In turn, these techniques will enhance effective blended learning in higher education (Hellystia, 2019). Moreover, direct instruction is an essential component in higher education, fulfilled through instructors' performance and peer evaluation to check instructors' quality. A proper survey for gratification is significant for enhancing blended learning (Alrefaie et al., 2020). The authors (Taha et al., 2020) enable parameters to improve a working team, including continuous quality improvement committee, experts of the instructional material committee, faulty development committee, and curriculum committee to monitor, assess, design, and implement the transactions of blended learning. Further, instructors' techniques play a vital role in the strategic teaching-learning methodology (Malik et al., 2018). Therefore, it is hypothesized that:

H1. There is a positive relationship between direct instruction and effective blended learning in higher education.

NMC Horizon Report 2017 (HE Edition) (Adams Becker et al., 2017) reported the achievement of skills and knowledge using the technological tools with collaborative learning, measuring learning trends, blended learning, and more in-depth learning. The researchers in (E. W. L. Cheng et al., 2007) feature successful blended learning: proper communication between students, teachers, students communication, course design, course content, quality of teaching, mastery, and administrative support. Learning practices include cultural knowledge roles, language roles, instructors' mastery, psychological roles, and pedagogical roles (Darmanto, 2020). There is a direct transmission between teachers and students in the traditional classroom system (Martínez-Argüelles et al., 2016). Nevertheless, blended learning delivers a diversity of learning and online teaching in successful learning outcomes (Sarabadani et al., 2017). Accordingly, it is hypothesized that:

H2. There is a positive relationship between the focus on mastery and effective blended learning in higher education.

Game-based learning facilitation plays a crucial role in the technological implication of blended learning in higher education (Meyer et al., 2010). Institutions including higher education systems' policies, schools, students' learning environment, teachers' drive through game-based learning by the institutions (Strike, 2018a). Game-based learning has a strong effect on developing learning procedures in higher education (Yang, 2010). Game-based learning is involved in the e-learning facilitation in preparing and managing the online courses in effective blended learning (Strike, 2018b). Since technological usage in higher education is unavoidable in online programs, schools, and universities need to back with a collaborative environment (Barefield & Meyer, 2013; Bolden et al., 2015). In the students learning process, game-based assessment is mainly supported by technology (Zakaria et al., 2020). Game-based learning contains evolving and nourishing factors from the learners' and instructors' perspectives of effective blended learning. Accordingly, it is hypothesized that:

H3. There is a positive relationship between game-based learning and effective blended learning in higher education.

The focus on the alignment of global connection (e-learning materials) with the course contents in the blended learning materials is an essential factor to be considered (Musdariah et al., 2020). The global connections should be based on the learner-centered approach, and less focused on the teacher-centered approach (Debattista, 2018). Significant global connection stress students' engagement and active learning in higher education (Ashwin et al., 2015). The global connection enables suitable and appropriate supporting materials through e-learning to significantly impact effective blended learning (Little et al., 2014). Global connection with the content of e-learning materials includes learning materials and supporting materials available online in higher education. The global connection materials with projects, assignments, and quizzes enable critical thinking, problem-solving and analytical skills (Akyüz et al., 2009). Therefore, it is hypothesized that:

H4. There is a positive relationship between global connections and effective blended learning in higher education.

Peer-assistance via peer evaluation, online discussion, and self-regulated learning for the students in effective blended learning (Nguyen et al., 2018). Interactive peer to peer students in blended learning will enhance student interaction (Goh et al., 2017). The learning environment will be enhanced with peer interaction and learning accuracy with qualitative peer feedback. Further, peer interaction supported the data approach will enable effective blended learning (Kulkarni et al., 2013). Moreover, interaction with peer students will improve the peer intrinsic and extrinsic motivation to improve the individuals and collaborate in effective blended learning through players, educators, game developers, and academics (Kong et al., 2012). Therefore, it is hypothesized that:

H5. There is a positive relationship between the peer to peer coaching and effective blended learning in higher education.

The recording of positive and negative aspects of the students is possible in project-based learning. The project-based learning feature encourages digital learning in higher education (McGuinness and Fulton, 2019). The project-based learning provides combined learning on face-to-face learning and online network to improvise the learners' involvement. Moreover, the process includes developing a blended learning model using the project-based learning via virtual science laboratory and the affirmation of blended learning model using project-based

learning via virtual science laboratory (Klentien and Wannasawade, 2016). Further, the laboratory's project-based learning will lead to effective blended learning (Weinhandl et al., 2020). Accordingly, it is hypothesized that:

H6. There is a positive relationship between the project-based learning environment and effective blended learning in higher education.

E-learning technical support is related to effective blended learning (Elumalai et al., 2020). Effective teaching and learning methods are possible through effective blended learning in higher education (Chivu et al., 2018). Technological platforms Ali et al. (2018) pointed out that blended learning needs to be user-friendly to achieve the learning objectives (Goh et al., 2017). The smooth way of effective blended learning needs the applications of proper installation and operation (Ching-Ter, Hajiyevev, & Su, 2017; Kimathi & Zhang, 2019). The availability and application of blended learning facilitate students' online transactions and face-to-face classes with greater enjoyment and satisfaction (Al-Rahmi et al., 2019). Moreover, it is mandatory to render training and the proper technical skills to learners and teachers before starting online programs (Roddy et al., 2017; Shahmoradi et al., 2018). Accordingly, it is hypothesized that:

H7. There is a positive relationship between technological integrations and effective blended learning in higher education.

The virtual learning environment with the structured approach of pedagogies reflects the efficiency in applying skills and learning (O'Reilly et al., 2020). Besides, blended learning with the e-learning environment leads to less cost with sufficient knowledge delivery (Yigzaw et al., 2019). There is a significant relationship between virtual learning and effective blended learning with technological competence (Jacinto et al., 2020). The virtual learning platform requires motivational interviewing skills in effective blended learning for a successful teaching-learning experience (Biddle and Hoover, 2020). Therefore, strategic pedagogies are required for blended learning with virtual learning platforms in informal practices to higher educational institutions. Enhancement of virtual learning platforms in higher education can be implemented with online tutors, planned face-to-face events, and support of students (Jones et al., 2007). Moreover, the virtual learning platform should be considered with the system,

instructors, and service quality for effective blended learning (Cheng, 2014). Therefore, it is hypothesized that:

H8. There is a positive relationship between the virtual learning platform and effective blended learning in higher education.

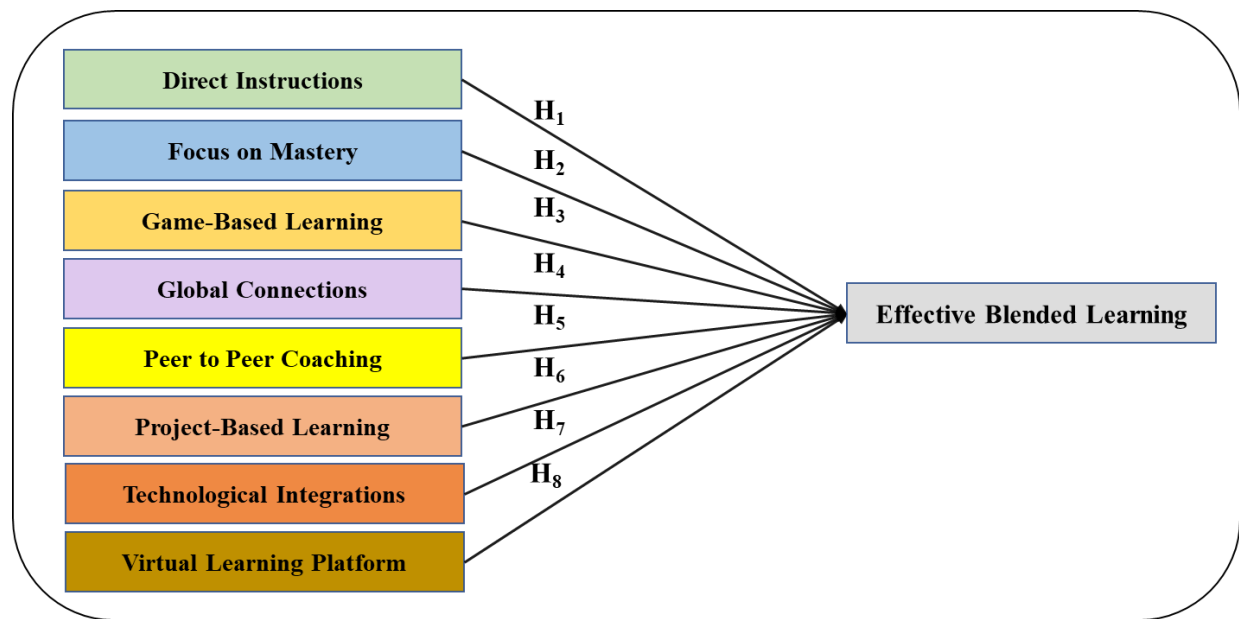


Figure 1: Research Model

Figure 1 represents the research model consists of 8 independent variables (direct instructions, focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform) associated with the dependent variable (effective blended learning). The research framework was developed based on the various research outcomes from the unpublished and published data, high indexed reputed journals, practical experience, and discussed using the different definitions. The research framework includes a direct relationship between independent variables and dependent variables.

Methodology

The study population comprises students of higher education institutions in the Kingdom of Bahrain. Students attending online classes during the COVID-19 data were analyzed. The 5-point Likert scale (5-strongly agree, 4-agree, 3-neutral, 2-disagree, 1-strongly disagree) self-administered questionnaire was used to collect the data. The questionnaire consisted of two

divisions. Part 1 consists of three questions, each for every independent variable: direct instructions, focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform. And Part 2 with six questions of effective blended learning. The study used an online questionnaire survey method to collect the data to understand blended learning effectiveness. Using the google form, the students answered the questionnaire questions, and the required attribute is enabled for all the questions in the questionnaire so that the respondents cannot skip any of the questions, and there is no missing data. Krejcie & Morgan (1970) table was used to determine the sample size. Henceforth, 221 samples are used in this study to reflect the total population as per Morgan's table.

The goodness of model fit, composite reliability, and discriminant validity assessments were used to test the instrument's validity and reliability. Additionally, the measurement and structural model support analysis attests to the research model's positive hypothesis effect. SmartPLS software is used to compute assessment criteria and statistical analysis. Hence, SmartPLS 3.3.2 software is opted to compute goodness of model fit, sign indeterminacy, and Dijkstra-Henseler's ρ and analyze the structural model. Consequently, the study adopted SmartPLS for structural equation modeling (SEM) using the partial least squares (PLS) path modeling method to compute assessment criteria and statistical analysis.

Results

Goodness of Model Fit

At the initial statistical analysis level, the difference between the observed values and the statistical model's expected values should be measured. The goodness of model fit statistical hypothesis test shows the fitness of sample data for the actual population (Henseler *et al.*, 2016). It is essential to do the goodness of model fit hypothesis test before the structural model and measurement model analysis. Henceforth, it is essential to employ PLS with the commencement of goodness of fit tests (Dijkstra and Henseler, 2015) for confirmatory research.

Table 1: Goodness of Model Fit

Fit criteria	Value
SRMR	0.085
d_{ULS}	5.923

There are several methods of measuring the model's goodness of fit, such as 1) the standardized root means squared residual (SRMR) method, the unweighted least squares discrepancy (d_{ULS}). Table 1 demonstrates the goodness of model fit assessments using Standardised Root Mean Square Residual (SRMR) (Dijkstra and Henseler, 2015) and unweighted least squares discrepancy (d_{ULS}) (Hair, Hollingsworth, *et al.*, 2017). The traditional value of SRMR is less than 0.1; the calculated result of 0.085 is a good fit for SRMR. Correspondingly, the conventional view of d_{ULS} should be less than 95 percent of bootstrap quantile; and the computed result of d_{ULS} using the PLS algorithm is 5.923. Therefore, the reflected results show that the criteria are met; the model accomplishes a good fit.

Table 2: Indicator Reliability, Internal Consistency, Convergent Validity, and Fornell-Larcker Test of Discriminant Validity

	Alph a	CR	AVE	DII	EBL	FO M	GBL	GL C	PPC	PBL	TEI	VLP
DII	0.773	0.77 8	0.68 8	0.82 9								
EBL	0.849	0.85 7	0.57 4	0.72 2	0.75 8							
FO M	0.786	0.78 7	0.61 6	0.67 8	0.75 4	0.78 5						
GBL	0.789	0.80 9	0.70 1	0.62 6	0.75 6	0.73 4	0.83 7					
GLC	0.776	0.78 1	0.60 6	0.63 9	0.81 6	0.63 8	0.55 4	0.77 8				
PPC	0.764	0.80 2	0.67 7	0.75 1	0.81 0	0.74 0	0.71 7	0.73 5	0.82 3			
PBL	0.776	0.77 7	0.69 1	0.81 6	0.74 8	0.69 0	0.64 5	0.66 6	0.77 6	0.83 1		
TEI	0.774	0.77 4	0.60 5	0.80 0	0.72 9	0.80 1	0.67 9	0.62 2	0.73 3	0.70 2	0.77 8	
VLP	0.780	0.78 7	0.69 5	0.62 0	0.70 0	0.79 9	0.81 6	0.54 8	0.70 4	0.66 3	0.66 4	0.83 4

The research estimates composite reliability, average variance extracted (AVE=convergent validity), outer loadings, Cronbach's alpha, and discriminant validity to do the measurement evaluation. Internal consistency reliability was assessed to test the research appropriateness. Composite reliability and Cronbach's alpha are the measures of internal consistency reliability. The values of composite reliability and Cronbach's alpha for all the variables should be higher than 0.70 (Hair, Hult, *et al.*, 2017); Table 2 exposes the values of composite reliability, and Cronbach's alpha is higher than 0.70. Additionally, the average variance extracted values demonstrate how well the questionnaire represents the characteristics of the research model

and the variables; the minimum essential value of AVE should be 0.50 (Hair *et al.*, 2010); from the table 3, AVE also met the required criteria. As the third level of measurement evaluation, the criterion of Fornell-Lacker is used. Fornell-Larcker criterion is commonly used to evaluate the degree of shared variance between the model (Fornell and Larcker, 1981). The square root comparison is made using the latent variable correlations with AVE values (Hair, Hult, *et al.*, 2017). The calculated values are less than 0.9, so the discriminant validity is accepted. From all the data provided in table 4, it is proved that the measurement scales are reliable and valid.

Table 3: HTMT Results

	DII	EBL	FOM	GBL	GLC	PPC	PBL	TEI	VLP
DII									
EBL	0.884								
FOM	0.834	0.881							
GBL	0.803	0.898	0.886						
GLC	0.869	0.715	0.825	0.727					
PPC	0.893	0.790	0.719	0.807	0.887				
PBL	0.773	0.818	0.848	0.828	0.810	0.721			
TEI	0.726	0.858	0.727	0.828	0.812	0.728	0.876		
VLP	0.805	0.849	0.780	0.790	0.732	0.810	0.856	0.822	

A novel technique for measuring discriminant validity in PLS structural equation model is the heterotrait-monotrait ratio of correlations (HTMT); If the HTMT value is less than 0.90, the discriminant validity has been endorsed between two latent variables (Henseler *et al.*, 2015). From Table 3 HTMT results, it is distinctly proved that the measurement scales are reliable and valid.

Structural Equation Modeling (SEM)

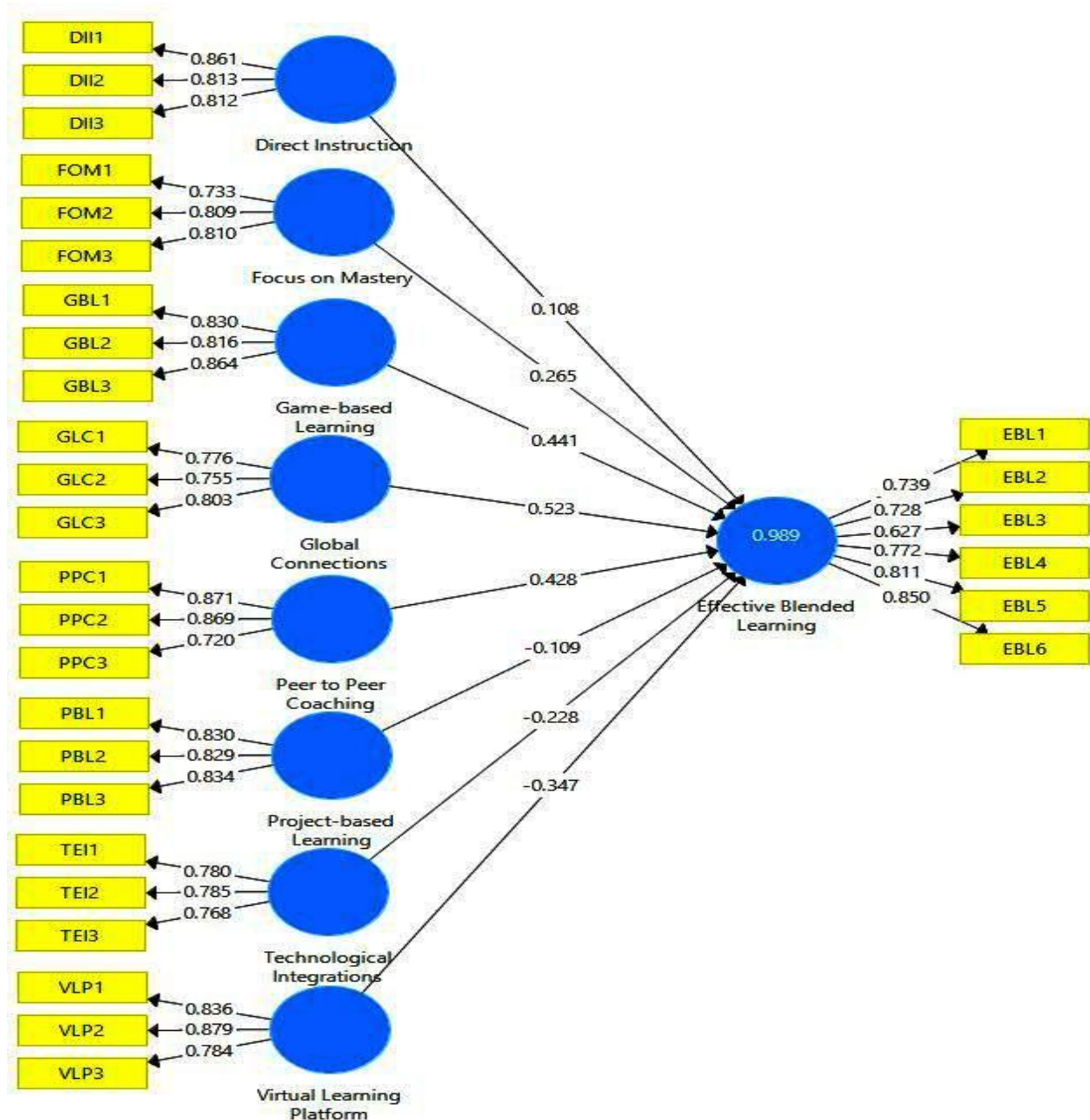


Figure 2: PLS Result

Figure 2 denotes that the R^2 value for the estimated equation is 0.989. It shows that direct instructions define 98.9 percent of the effective blended learning, focusing on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platforms.

Table 4: Structural Hypothesis

	Beta	SE	p-Values	VIF
Direct Instructions → Effective Blended Learning	0.108	0.046	0.019	2.895
Focus on Mastery → Effective Blended Learning	0.265	0.067	0.000	3.078
Game-Based Learning → Effective Blended Learning	0.441	0.051	0.000	2.133
Global Connections → Effective Blended Learning	0.523	0.032	0.000	2.381
Peer to Peer Coaching → Effective Blended Learning	0.428	0.034	0.000	4.022
Project-Based Learning → Effective Blended Learning	0.109	0.044	0.013	3.602
Technological Integrations → Effective Blended Learning	0.228	0.057	0.000	3.718
Virtual Learning Platform → Effective Blended Learning	0.347	0.055	0.000	3.454

Table 4 represents the structural hypothesis results using the PLS algorithm and bootstrapping approaches. From the results of the total effect, Beta and Standard Deviation (SE) values were obtained using the bootstrapping approach. Furthermore, the collinearity statistics method obtained Variance Inflation Factors (VIF) results using the PLS algorithm. Likewise, the p-values of all the variables were obtained using the bootstrapping approach. The values of VIF for all the latent variables with the expected output should be in the range of 0.2 to 4 tolerances (Hair *et al.*, 2010). The inner VIF values using collinearity statistics of direct instructions focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform with effective blended learning are 2.895, 3.078, 2.133, 2.381, 4.022, 3.602, 3.718 and 3.454 respectively. All the portrayed results are in the range of 0.2 to 4; there is no multicollinearity effect among the variables.

Table 5: Hypothesis Testing

	Beta	t-Statistics	p-Values	Decision
Direct Instructions → Effective Blended Learning	0.108	2.346	0.019	Supported
Focus on Mastery → Effective Blended Learning	0.265	3.964	0.000	Supported
Game-based Learning → Effective Blended Learning	0.441	8.631	0.000	Supported
Global Connections → Effective Blended Learning	0.523	16.236	0.000	Supported
Peer to Peer Coaching → Effective Blended Learning	0.428	12.536	0.000	Supported
Project-Based Learning → Effective Blended Learning	0.109	2.493	0.013	Supported
Technological Integrations → Effective Blended Learning	0.228	4.030	0.000	Supported
Virtual Learning Platform → Effective Blended Learning	0.347	6.358	0.000	Supported

Table 5 shows the results of hypothesis testing using the bootstrapping approach. The results for t-statistics and p-values for all the variables concerning effectual blended learning output

are excellent. Five hundred bootstrap subsamples were used to perform the hypothesis test. Complete bootstrapping and bias-corrected and accelerated confidence interval method and 0.05 significance level of confidence interval computations were set during the analysis. The findings revealed that direct instructions has a positive relationship with the effective blended learning ($\beta=0.108$, $p<0.05$); therefore, H_1 is accepted; focus on mastery has a positive relationship with the effective blended learning ($\beta=0.265$, $p<0.05$); therefore, H_2 is accepted; game-based learning has a positive relationship with the effective blended learning ($\beta=0.441$, $p<0.05$); therefore, H_3 is accepted; global connections has a positive relationship with the effective blended learning ($\beta=0.523$, $p<0.05$); therefore, H_4 is accepted; peer to peer coaching has a positive relationship with the effective blended learning ($\beta=0.428$, $p<0.05$); therefore, H_5 is accepted; project-based learning has a positive relationship with the effective blended learning ($\beta=0.109$, $p<0.05$); therefore, H_6 is accepted; technological interaction has a positive relationship with the effective blended learning ($\beta=0.228$, $p<0.05$); therefore, H_7 is accepted; finally, virtual learning platform has a positive relationship with the effective blended learning ($\beta=0.347$, $p<0.05$); therefore, H_8 is accepted. Henceforth, the blended learning with the structured approach of pedagogies reflects the efficiency in applying skills and learning (O'Reilly *et al.*, 2020). Therefore, blended learning requires strategic pedagogies for learning with informal practices to higher educational institutions. Moreover, e-learning environments with structured student support, online tutors, and planned face-to-face events improve blended learning (Jones, Jones, *et al.*, 2007).

Conclusion

The research findings are structured with the system to accomplish the results to evaluate the validity and reliability of the research framework. Smart PLS 3.3.2 software tool for partial least squares structural equation modeling was used to do structural and hypothesis testing to analyze the measurement and structural models. Partial Least Squares (PLS) algorithm & Bootstrapping methods are used to do statistical analysis. The 5-point Likert scale self-administered questionnaire was used in this study to collect the data from the students attending online classes during the COVID-19. The demonstration of findings of the research represents there is a significant positive relationship between the eight independent factors: direct instructions, focus on mastery, game-based learning, global connections, peer to peer coaching, project-based learning, technological integrations, and virtual learning platform and the effectiveness of blended learning in higher education after the COVID-19 pandemic.

The research findings showed that blended learning is a robust tool for teaching and learning in higher education. From the students' perspective through the study survey, blended learning is useful in education and is highly accepted. However, with a brilliant and practical strategy and effective approach to implementing blended learning, it must have successful teaching and learning in higher education.

Limitations and Future Research

The study was conducted in the Kingdom of Bahrain. An online survey was conducted to collect the data using a questionnaire. The restrictions on mobility are the significant limitation of the study as the COVID-19 pandemic has disrupted international travel. Another salient limitation encountered in the research was a technical problem. If the respondents are in a region where internet connectivity and bandwidth issues occur, blended learning will be impractical.

Despite all the factors, the pandemic's challenging circumstances encourage blended learning in higher education. However, designing and implementation blended learning with appropriate policy and plan with a practical approach is an essential factor to be considered. This study plays a vital role in future research in a deeper understanding of blended learning and developing a relevant approach to planning and implementing blended learning with optimal face-to-face instruction and online teaching. Redefining instructors' tasks, administering and tracking students' progress, ensuring the coordination of all the physical and virtual elements, and, most notably, the management support for redesigning courses are the characteristics to be reflected in future research to establish effective blended learning.

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Contextual Understanding of Vocabulary - A Heuristic Approach Aided by Modern Technology

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Abstract

Vocabulary is identified as one of the major components of learning and mastering a language. However, acquiring it can be daunting for a learner. It plays a major role in success at school as well as in reading comprehension as highlighted by many. (Baker, Simmons, & Kameenui, 1998; Anderson & Nagy, 1991). According to Mayer (2002, 2009), the use of multimedia can aid in the learning process (Cognitive Theory of Multimedia Learning). According to Stahl (1986) and other research, vocabulary teaching should be guided by three principles: (1) a definitional and a contextual approach, (2) involve deep processing and (3) provide multiple exposures (Baumann and Kameenui, 1991). Rapid progress and advancement in technologies has enabled in incorporating these principles in the vocabulary teaching-learning processes. This study was designed to explore the vocabulary skills of pre-service teachers of the English Methodology in learning through the use of both visual and auditory channels using a heuristic mobile application, Metaverse Studio. The aim of this study was to determine how a heuristic learning method aided by modern technology impacts vocabulary learning. It used both qualitative and quantitative measures showing that there was a positive

relationship between vocabulary enhancement and the use of the application. The sample chosen was 29 pre-service teachers belonging to the English Methodology with the rationale that in addition to enhancing the employability skills of the prospective teachers, it is also new technology and an emerging skill that teachers should be conversant with in post COVID-19 era. It also promotes autonomy in learners, which is a life skill.

Key words: *vocabulary, heuristic, autonomy, technology, Metaverse Studio, multi-media*

Introduction

Vocabulary is a very important part of language learning. Most teachers use methods for teaching vocabulary which they are comfortable with or skilled in. Many do not take into consideration the different learning styles, multiple intelligences, pace of learning, motivation of learners and the learner's choice of medium. However, if the effectiveness of the learning method is the end focus, then the methodology used by a majority would be very different. In the current times, learners are more multimodal than ever before. This impacts their choice of a learning medium. Conventional methods can be monotonous and boring to learners. Therefore, learner-centred methods chosen with the learner's choice and taste in mind will "enhance learners' motivation, thereby increasing their academic achievement" (Kok, 2010). Among these methods is the Cognitive Theory of Multimedia Learning (Mayer, 2002, 2009). Unlike conventional methods, this approach poses the teacher as a facilitator of the learning process.

In addition, learners fall into different learning styles. Educationalists speak about various approaches, different media and different styles of teaching/learning vocabulary. Based on Dunn and Dunn's Learning Styles Dimension table, the physiological dimension mentions the element of perceptual intake of learners. "Is the student an auditory, visual, tactile, or kinaesthetic learner?". "Some cognitive styles and dispositions *do* seem to influence how and what students learn. ... Some students seem to learn better when information is presented through words (*verbal* learners), whereas others seem to learn better when it's presented through pictures (*visual* learners)" Omrod (2008) (p. 160, italics in original).

As facilitators of learning, teachers have to vary their instruction to each individual's style so as to give the best learning experience to their students. Technology can assist teachers to

design their own learning modules which can be applied to different learning styles and hence enable learner autonomy.

Technology is increasingly becoming a part of everyone's life. Perceiving it as a disruption and banning its use in the classrooms is a thing of the past. It might seem challenging and daunting to most teachers and they may feel inundated with it. The question is whether it should be used just because everyone else is doing it or to stay abreast with others. Technology must be used selectively with the purpose in mind. It should meet objectives, incorporate the required pedagogy, and include the principles that underpin the teaching concept. An appropriate technological application must be chosen not because it is popular but because it is apt.

This study is about a heuristic method which takes the aid of modern technology which incorporates various aspects for the learner to choose from. It addresses issues such as differences in linguistic talent, cultural blocks, lack of support, different kinds of intelligences, slow learners and other factors which influence learning. It is highly relevant in the current times when contact hours with our students are limited. The application chosen to achieve this was Metaverse Studio. The experience was prepared for learners to understand the target words based on Mayer's following principles:

- ❖ Multiple Representation Principle: It is better to present an explanation in words and pictures than solely in words. This principle states that two modes are better than one.
- ❖ Contiguity Principle: When giving a multimedia explanation, present corresponding words and pictures contiguously rather than separately. This principle states presenting words and pictures at the same time enables better learning.
- ❖ Split-Attention Principle: When giving a multimedia explanation, present words as auditory narration rather than as visual on-screen text.
- ❖ Individual Differences Principle: The foregoing principles are more important for low-knowledge than high-knowledge learners, and for high-spatial rather than low-spatial learners.
- ❖ Coherence Principle: When giving a multimedia explanation, use few rather than many extraneous words and pictures.

Metaverse Studio

Metaverse Studio is a free platform that enables anyone to create augmented reality experiences in line with the 21st century skills. The augmented reality experiences help in engaging

learners, and using them for Project Based Learning enhances creativity and creative thinking skills. There are readymade basic scenes which can be changed to suit different levels of learners. When the teachers first see an experience, they may shy away from trying to make one thinking that it would be very time-consuming and hard to achieve. However, this is not so. The available scenes enable the easy creation of interactive experiences which may include tests, 360-degree videos, pictures, etc. According to Dr. Ruben Puentedura's SAMR model, this application falls in the second level of Transformation wherein one can redesign tasks or even create new ones, which without technology would be inconceivable. Hence, it serves the purpose of fulfilling the highest level in Bloom's taxonomy of creativity and critical thinking. Most importantly, it aids heuristic learning where the learners take control of their own learning. In addition, it provides support for the teaching material.

Metaverse Studio is an application through which you can create and share experiences. For this study, each experience had ten target words. Each word had a definition, a contextual sentence, an audio of the pronunciation and also a relevant image to fulfil all the principles required in teaching and learning vocabulary using a multimedia approach. Since the application has been created with the 21st Century Skills in mind, it focuses on collaboration, communication, creativity and critical thinking. Scenes for different words and information on them are created and linked to form an experience.

Technology should be used purposefully and aptly, wherein teachers choose a method which incorporates principles of pedagogy. When in doubt, educators can refer to Dr. Ruben Puentedura's SAMR model to determine what level of support the technology provides to their instructional method. This study used Metaverse Studio as it allowed the incorporation of the three basic principles of vocabulary teaching stated by Stahl and other research, namely 1) definitional and contextual approach, 2) deep processing and 3) multiple exposures. In addition, it also allowed for principles of Mayer's Cognitive Theory of Multimedia Learning.

The use of Metaverse has become popular in the sciences, such as Mathematics, Biology, Chemistry and Physics. It has also gained popularity as an Augmented Reality application in teaching of languages via games and AR experiences. However, its use in teaching and learning vocabulary needs to be studied further.

Need for the study

The factors which led to this study are:

- ❖ The importance of vocabulary
- ❖ The current learners' love of cell phones
- ❖ The need of autonomous learning as a life skill
- ❖ The fun element
- ❖ The exposure to TEL, Technology Enhanced Learning, as an employability skill

Objectives

- ❖ The aim of this study was to determine the impact of a heuristic approach using a mobile application (Metaverse Studio) on the acquisition and learning of vocabulary using a specific context to introduce the words.
- ❖ To enhance employability through exposure to new technology.
- ❖ To determine the impact of a multi-media approach on learning.
- ❖ To determine the effectiveness of the mobile application, Metaverse Studio.

Hypotheses

- ❖ The use of the Metaverse Application using the heuristic approach has a positive effect on the acquisition and learning of vocabulary.
- ❖ The employability skills of the student teachers will be enhanced with their ability to use technology for vocabulary teaching and learning.
- ❖ The use of Mayer's Cognitive Theory of Learning through a multi-media approach is an effective method of autonomous learning.
- ❖ The application, Metaverse Studio is effective as a vocabulary teaching-learning tool.

Method

Quantitative:

The sample for the study was a group of twenty-nine pre-service student teachers. The rationale of choosing this sample was to promote autonomy, introduce new technology, and enhance their employability skill. The mode of testing used was Kahoot and Google Forms, which were both time-controlled. Ten words were chosen from a Grade 9 English Reader from (NCERT) National Council of Educational Research and Training. They were from the lesson A Truly Beautiful Mind, based on Albert Einstein. The sample was first given the pre-test, then presented with the necessary information through the Metaverse application to comprehend the target words. The time allotted was just eight minutes for a set of ten words during which the

sample was free to revisit the words as many times as required. After that, they had to answer the post test. Both the pre-test and the post-test had the same ten questions with four choices for each of the words. The respondents had to choose the meaning of the word from the four choices.

The information provided for autonomous learning of every word was a contextual sentence, a definition, the part of speech, an image and also an audio with the pronunciation of the word. In addition, there was a set of questions encouraging deep processing of the meaning, which required an understanding of the words. The learners were given access to learn by doing the activity rather being passive listeners to a teacher's instruction on the new vocabulary.

Qualitative:

A questionnaire was administered via Google Forms. It included questions asking the sample about their opinion regarding the approach/method, its friendliness, the information provided about the vocabulary item, the information included on the learning page, their interest in using it for their own students and if they thought it was an effective method. The qualitative feedback was requested in order to find out the impression of the learners regarding the use of this approach through the mobile application.

Tools used

The tools used were Google Forms, Kahoot and Metaverse Studio. The sessions were conducted on Zoom and Google Meet. The Metaverse Studio experience was prepared by using the readymade character scenes available on the application.

Results

Impact on Learning:

The quantitative results evidenced a very significant impact on learning. The overall increase in score was 26.55%. In addition, all the word scores showed a very big improvement in the learning of individual words too. This could be attributed to several factors, such as the effective visuals, the contextual sentence, or the deep processing task. Positive scores acted like a source of encouragement to learners. Learners could evaluate their own learning. "To become autonomous, learners need to develop the ability to evaluate their own learning." (Simon Borg, 2011)

In the qualitative feedback, a majority of the respondents, 63.2% mentioned that the experience was friendly, as mentioned by one, “Within very few minutes, I understood the words and their meanings. A good method!”

Future Use of this Technology:

It was an exposure for the learners to explore the possibilities of using such technology in their teaching careers. A large majority of 89.5% confirmed that they would use this method in their own teaching, as stated by one of the respondents, “I really loved learning in this way as I still remember the words as well as the meanings. This method of teaching is just brilliant.” Self-reliance in learning can be promoted especially for students of the higher education sector so that they learn beyond the classroom. The use of this method can bring about collaboration between students and teacher; team-work between students; classroom discussions and also help each learner to achieve success through active learning. This approach facilitates PBL wherein students are self-motivated to take charge of their own learning or prepare their own study materials.

The student-centred approach is in focus as the teacher acts only as the facilitator and the active role is played by the learners. (*Kama-rainen et al. [14, p. 554]*) Learners are allowed to choose their own medium according to their learning styles. (audio/visuals) “96 percent of teachers agreed that learner autonomy is promoted when learners have some choice in the kind of activities they do” (*Simon Borg, 2011*)

Benefits of Using Metaverse Studio:

“Using Metaverse was quite useful as it gives just the right kind of exposure to facilitating the right kind of understanding in order to use new words with a lot of ease. It’s convenient and informative at the same time.”, was a comment given by a student teacher. A vast majority of 94.7% mentioned that there was enough information included in the experience to aid the learning of new words. Self-pacing and multiple exposures are also possible. It can also be personalised and tailor made.

Effectiveness of Metaverse Application:

A majority of 68.4 % said that it was an effective way for learning new words while 89.5% stated that the approach enhanced autonomous learning. A large majority of 89.5% also

mentioned that it was a suitable approach to be used in the current COVID-19 era. The main reason was the mobility feature, wherein the application is accessible anytime and anywhere with the availability of a network connection. This was well summarised by a student who said, “It is indeed a very good learning App.”

Conclusion

The current generation of learners is very adept and comfortable with the use of technology. Using familiar mediums for learners to acquire their language is a very effective and pragmatic way of conducting teaching and learning. The Metaverse Studio application is not only useful for teaching and learning vocabulary, but can also be used for other language skills. The experiences can be made for grammar concepts, listening tasks, and also for reading comprehension. To sum up, a heuristic approach aids autonomous learning, and autonomous learning is a very much needed life skill. As teachers, we can take the aid of appropriate technology to make it an effective method of learning for students. Digital environments are a boon to heuristic learning, and this study has shown that this method can go a long way in benefitting both learners and teachers. Finally, in the current situation, this approach has unlocked scope for further research in the field of ELT.

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Assessment of 21 Century Skills & Academic Literacies: From Theory to Practice

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Abstract

English literacy educators recognize the misalignment of high-stakes standardized examinations with the 21 century technical communication goals and cognitive processes emphasized in English for Academic Purposes Literacies (EAPL) (Anand, 2020; Murray, 2019; Wingate, 2015). EAPL proficiency extends beyond the four language skills and culturally applied language skills (i.e., textual analysis and compositional logic) to strategic proficiency in situationally and domain specific exchanges (Bhatia 2017; Swales 2016). General English language courses prepare for competency assessment at the lowest

(knowledge) level of Bloom's taxonomy, whereas EAPL courses prepare students for the realization of academic communicative exchanges within discursive spaces (Bhatia 2017). The currently available and internationally endorsed assessment instruments such as the International English Language Testing System (IELTS) or Test of English as a Foreign Language (TOEFL) collapse the socio-cultural and cognitive aspects of EAPL into a purely linguistic format. These tests measure text-internal aspects of EAP proficiency but have no measure for text-external proficiencies such as the application of appropriate rhetorical strategies that qualify language users to communicate in academic exchanges, nor for embodiment of social performative norms in professional and academic contexts. We consider the constituent elements of EAP proficiency as tripartite, with social, linguistic and cognitive dimensions (Parodi, 2010), and propose a view of EAP that constructively aligns EAPL assessment by assessing performative, or externally visible socio-cultural academic and professional practices as well as linguistic and cognitive proficiencies. We propose that EFL/ESL examinations be reconfigured to include the thinking skills and social pragmatics included in pre-university and pre-professional assessments for native speakers, and that simulations, so widely used in assessment of medical professionals, be adopted for academic and professional candidates in other domains.

Key words: *Constructive Alignment, 21st Century Skills, English for Academic Purposes Literacies (EAPL), High stakes international assessments, IELTS, TOEFL, Simulation Assessment*

Introduction

The Gulf states have promoted plans for future success that emphasize the development of their human capital such as Bahrain 2030, Saudi Arabia 2030, [Qatar] National Vision 2030, and UAE 2021 (Hvidt 2012, 193). Education and professional development are found together in such plans, and in the policies that have evolved from them, with concrete results on both. The conference for which this article was written illustrates regional concern for human capital development through higher education: "Extending higher education beyond the classroom: Integrating life and employability skills".

A comparison of Twenty-First Century Skills (21CSs) and English for Academic Purposes Literacies (EAPL) reveals the common features of professional and academic skills/literacies that form the profile of an ideal future work force. Most modern societies, and the Gulf states in particular, have relied upon the best-known international examinations, the UK developed

IELTS and the US developed TOEFL, to measure the readiness of their students to enter higher education and, subsequently, the work force, as qualified members of the academic community first, and finally, the professional community. This paper presents the limitations of these and other assessments to measure an essential aspect of both 21CSs and EAPL – the ability to perform tasks in a multidimensional discursive space. Current assessments, international, regional or local, are misaligned with the very skills the GCC states seek to promote as a human resource vital for future societies. By first aligning the common features of 21CSs and EAPL, and then seeking to align them with assessment as currently practiced, the key ability to function in both discourse and social interaction, we demonstrate that assessment of this key ability is not simply misaligned, but absent.

The article begins with the discussion of overlaps between 21CSs technical communication goals and cognitive processes emphasized in EAPL by describing the two dimensionalities of text internal processes involved in the assessment of both 21CSs and EAPL. For example, a common stereotype of assessment shows a paper/pen/student or a computer/keyboard/student trio. It pictures language (writing/keyboarding) applied through mental processes (student) to a text (paper/digital). This vision fails to recognize that crucial skills and literacies promoted by 21CSs and EAPL must be enacted outside of texts in multipersonal or interpersonal environments. “Students may get highest marks [on tests], but commit pragmatic failures” (Al Kayed, 2020, p. 163) because they have not needed to prove their competency external to texts. It is in the third dimension- or socially enacted aspects - of both 21CSs and EAPL that we identify a significant lack of assessment. In all probability this gap in the theory – curriculum – classroom practices – assessment chain is due to the nature of discursive enactment of competency as text external. Assessment has been, and to a large extent, remains text or screen (displaying text) bound, and thus, the focus of our inquiry is the assessment of performative, or externally visible interactions. To demonstrate the limitations of current assessment practices and to establish the need for socio-pragmatic assessment, the following research questions will be addressed in this article:

RQ 1 – What are the commonalities and differences between 21CSs and EAP literacies and their assessment?

RQ2 – What are the misalignments between the objectives promoted for 21CSs and EAPL and their assessment?

RQ 3 – What are the aspects of current assessment practices to be retained and refined in assessment of 21CSs and EAPL, and what transformations should be proposed?

Theoretical Reflections on 21st Century Skills and English for Academic Purposes Literacies

Overview of 21CSs and their assessment

To be employable in the 21 century, and academics and employees alike have to possess information sets, skills and abilities which were not necessarily part of 20th century capabilities (Dede, 2009). Because of advancements in technology and telecommunication, the types of work formerly performed by a labor or clerical force have been shifted to realization by computers and machines. Complex tasks, however, such as critical thinking and communication, are increasingly allocated to human agents. Thus, the needs of the 21st century require academics and professionals to be creative, critical, and independent thinkers; problem solvers and decision makers; and communicators, collaborators, and team players (Dede, 2009; Geisinger, 2016; Greff & Kyllonen, 2016; Silva, 2009). The essence of 21CSs lies in what human agents can do with the knowledge that they possess. Success in the workplace or academia is no longer determined by stores of knowledge, but by implementation of knowledge in domain specific interpersonal arenas by skilled professionals.

21CSs is an umbrella term encompassing many types of skills and abilities, variously defined as life skills, workforce skills, interpersonal skills, applied skills, noncognitive skills and individual skills for using technology and multimedia. Elaborating one comprehensive list for the purpose of education invariably brings some to the fore, while relegating others to the hinterground, or omitting them altogether: it is impossible to satisfy all (Silva, 2009). Development of these skills requires students to have a rich body of knowledge and to exercise higher order thinking and problem-solving skills.

While identifying and including 21CSs in curriculum is an important and challenging task, equally important and challenging are the assessment and measurement of these skills. Many complex questions related to assessment of 21CSs are unanswered: What is the relationship between tasks and theoretical frameworks; how can meaningful and effective assessment of these skills be created; how can they be scaled and scored, and what is their justification and utility (Greff & Kyllonen, 2016). Moreover, some of these skills, such as creativity, may be too protean to measure with objective descriptors. Creativity, Suto and Eccles (2014) suggest, could involve all senses - sight, touch, hearing, smell and taste - and is by definition infinite.

Although it may be possible to assess the quality of products of creativity, it is difficult to assess the processes involved in their production. Nevertheless, if we make acquisition and exercise of 21CSs part of our curriculum goals, we must be able to inform students, administrators and future employers about the extent to which they have been mastered.

While there are no widespread commonly applied measures of 21CSs, there are some positive examples and models such as the Assessment and Teaching of 21st Century Skills (ATC21S, 2014) framework, the International Baccalaureate (IB) Diploma Program, the Cambridge International Examinations IGCSE Global Perspectives and the Education Testing Services' (now discontinued) iSkill assessment. Although only one of these is specifically designated as targeting 21CSs, we see that, because of the crossover between the critical thinking and problem-solving skills associated with 21CSs, and the same as characteristic of EAPL, tests of thinking skills apply equally to both.

Clearly, as their title indicates, the ATC21S project 2009-2012, internationally supported by corporations (Cisco, Intel, Microsoft), universities and academic programs (Melbourne, ERASMUS), and governments (Australia, Finland, United States, Costa Rica, The Netherlands) most directly addresses our search for assessment prototypes that measure the 21CSs that intersect with EAPL. The ATC21S framework is based on a belief that in order to enhance a knowledge economy, school curricula and assessment are to be redefined to prepare students for work and life in the 21st Century. The framework grouped 21st Century skills into four broad categories: ways of thinking (creativity, critical thinking, decision making, metacognition and learning to learn); ways of working (collaboration and communication); tools for working (ICT literacy and digital fluency); and living in the world (life skills, leadership skills and world citizenship). All of these, except perhaps 'living in the world', and a focus on digital fluency, aptly describe Academic Practices Literacies (APL), which confirms our stance on the close relation – if not identity – of APL and 21CSs.

The assessments used in the ATC21S framework were mainly formative and IT-based with an element of performance assessment. The project criticized extant assessment practices, such as high stakes assessment, as major barriers to curriculum change, which is echoed by other researchers (see Silva, 2009) and too much testing, as narrowing the curriculum through a focus on the test rather than fundamental learning (Silva, 2009). Adopting a developmental learning approach to instruction and assessment, the project supported the development of social and cognitive skills needed for collaborative problem solving and provided data to map

complex knowledge, skills and abilities against gaps at class level for teachers to tailor instructions accordingly (Griffin, Care & McGaw, 2011). The project shortcomings, however, were that greater emphasis was placed on measuring cognitive skills rather than social skills, and not all tasks captured the construct of collaborative problem solving.

This project, like the ETS iSkillsTM, was short-lived, and little has come of the assessment models they produced. Overall, it can be concluded that, despite signal attempts to advance assessment of socio-pragmatic 21CSs such as collaboration (ATC21S) and real-time problem-solving simulations (iSkillsTM), assessment has not kept pace with the advances in either theory or pedagogy. The most common method of assessing 21CSs remains limited responses, especially multiple-choice questions (MCQs). The Thinking Skills Assessment (TSA), developed by Cambridge Assessment Admission Testing Service, for instance, relies entirely on MCQs. The TSA, used by the Universities of Cambridge and Oxford and by University College London as part of their admissions process, is “a simple assessment type with excellent reliability to assess complex skills with validity” (Suto & Eccles, 2014, p.7), and, they report, a successful predictor of college readiness. Although we agree that trained and experienced assessment professionals can and do develop appropriate item types for measurement of significant aspects of 21CSs and APL, we question a concept of college readiness that excludes socio-pragmatic skills such as collaboration and reaching consensus. This issue will be discussed in greater detail in RQ3.

Academic literacies and their assessment

As noted in the introduction, technological advancements have redefined human capital as a workforce skilled in cognitive processes and collaborative problem solving. The worldwide redefinition of the workforce has similarly reshaped the mission of education and the population of students trained in post-secondary education. The student population in higher education has become linguistically, socially, and culturally diverse.

Uneven development of literacy skills, or enrolment in English Medium of Instruction (EMI) programs, increasingly prevalent world-wide, causes a significant portion of these students to struggle with the literacy demands of their studies (Fox, 2004; Murray, 2019). Students struggling with literacy are directed to EAPL courses within their institution. The term ‘English for Academic Purposes Literacies’(EAPL) highlights the relationship between language and learning in higher education. The most widespread notion of EAP defines it narrowly as proficiency in academic reading and writing, a limited view of literacy as a static set of

generalizable unitary skills (grammatical accuracy and/or rhetorical appropriateness in academic writing) which can be seamlessly transferred from one context to another. (Murray, 2016; Lea & Street, 2006, Wingate, 2015).

A more pluralistic view of EAPL, however, is that all students (native and non-native alike) need to be supported and socialized within the communities of their practice in order to participate in and contribute to academic discourse within their disciplinary communities. The New Literacies Studies (Lea & Street, 1998, 2006) approach considers language use as embedded in the culture of the discipline, and learning to communicate in that discipline as a process of socialization “that reflects an emergent understanding of and ability to participate in its traditions of meaning-making” (Murray, 2019, p. 55). Rex and McEachen (1999) suggest these traditions:

include not just concepts and associated vocabulary, but also rhetorical structures, the patterns of action, that are part of any tradition of meaning-making. They include characteristic ways of reaching consensus and expressing disagreement, of formulating arguments, of providing evidence, as well as characteristic genres for organizing thought and conversational action. (p. 69)

The above view is in contrast to individual cognitive activities, and hence the use of the plural form ‘literacies’ to include contextual social and cultural practices around reading and writing. To sum up, just like 21CSs, academic literacy also demands that students learn to be independent thinkers, collaborators, and communicators, as we have noted in our discussion on 21CSs assessment above.

With regards to different models of academic literacies, Lea and Street (1998) have conceptualized academic literacies through three mutually exclusive perspectives or overlapping models: a *study skills* model, an *academic socialization* model, and an *academic literacies* model, each with its own variant of assessment. As demonstrated in the discussion below of these models and their evaluation, assessment still lags behind, or, as in certain cases, is absent from developments in theory and pedagogy associated with academic literacies.

The first of these, the study skills model, has a remedial approach to English language teaching that views students as being in deficit and provides them with classes that traditionally focus on general EAP and study skills. These programs usually cater to the needs of non-native speakers of English. Separated from subject content and knowledge, most instructional texts

in the study skills model offer little in terms of experience and reflection (Wingate, 2006). The assumption of study skills courses is that successful studying is somehow distinct from learning; if certain techniques are acquired, students can study without deep engagement with a subject (Murray, 2016; Wingate, 2006). Some study skills model courses devolve into practice with mechanical, or systemic aspects of high stakes examinations and question types, such as time management and reading to eliminate distractors, rather than developing skills for learning.

Literacy, as present in the study skills model, treats the traditional four language skills in isolation. Literacy resides in grammar and a generic academic lexicon, and is realized in sentence and paragraph construction, which are assessed by MCQs, note-taking and decontextualized essay writing. Essays are typically assessed for topic sentences, temporal and logical signposting, and the use of transitions rather than cogent argument. The value of these programs for students is limited by their generic nature: students have no opportunity to engage with discipline specific content to develop the kind of comprehension skills sets encountered in the associated academic literacies model. The narrow emphasis on surface features of language excludes students from a larger, more complex ecology of knowledge and meaning making.

The second model, academic socialization, focuses on a more communicative language teaching and testing approach, in which communication skills are developed and assessed as an integral part of the study program, and provides learning opportunities for lifelong personal and professional development (Wingate, 2006). The goal here is not only the mastery of four language skills, but also the overall communicative abilities of learners (Bachman, 1990; Canale & Swain, 1980). The emphasis of assessment in this model is on analyzing real-world language use situations that a test taker might encounter in academia or other language use contexts. Considering that language ability is both linguistic and pragmatic knowledge, the common academic English proficiency tests (e.g., TOEFL, IELTS, PET) measure language proficiency as language knowledge and abilities in language user-in context (Bachman & Palmer, 2010; Chalhoub-Deville, 2003). Language ability in these tests is considered to be the interaction of linguistic, grammatical, sociocultural, pragmatic knowledge, and the test taker's strategic competence. These competencies affect a test taker's test performance. For example, in the integrated skills assessment of TOEFL, the examinees are required to read/listen to a text and then speak/write about it. Cumming, Kantor, Baba, Erdosy, Eouanzoui, and James (2005) explain that test takers are asked to

produce written compositions that display appropriate and meaningful uses of and orientations to source evidence, both conceptually (in terms of apprehending, synthesizing, and presenting source ideas) and textually (in terms of stylistic conventions for presenting, citing, and acknowledging sources). (p. 34)

These realistic and challenging literacy activities are the hallmark of the academic socialization model. In recent times, such integrated tests have been important avenues for measuring EAP abilities; they are tests “whose scores are intended to reflect how well examinees’ language will allow them to perform on academic tasks, which typically involve a combination of skills” (Chapelle & Plakans, 2013. p. 2).

The third model, the academic literacies model, subsumes both the above models, and is additionally concerned with “meaning making, identity, power, and authority” (Lea, 2017, p. 152) in students’ academic language development. Language in this model is considered to be embedded in the culture of a discipline and it not only shapes that discipline but also is shaped by that discipline and its discourse. Lea & Street (1998, 2006) postulate that learning to communicate within the discipline and its discourse community is essentially a process of socialization that reflects an emergent understanding of and ability to participate in its traditions of meaning-making. In the current era of diverse academic and vocational disciplines and technological and multimodal advances, assessment in this model would have to be very fluid. Such assessment would be transferable from one context to another, yet sufficiently variable to suit different disciplinary discourses and genres. Regrettably, assessment for this model is found primarily in reflective writing and peer evaluations in diverse genres and disciplines. Another drawback of this model is that writing is the dominant skill when it comes to assessment. As Wingate (2015) laments

...teaching of academic literacies should include all aspects of literacy such as its epistemological foundations, oral discourses and particularly reading ... on the one hand the importance of the written text as the main mode of knowledge construction and communication in higher education [is exaggerated], but [there is] also the clear neglect of important literacy activities that lead to writing, in particular the selection, evaluation and synthesis of source. However, students’ academic literacy performance is judged on writing only, which is the main assessment tool in higher education (p. 15)

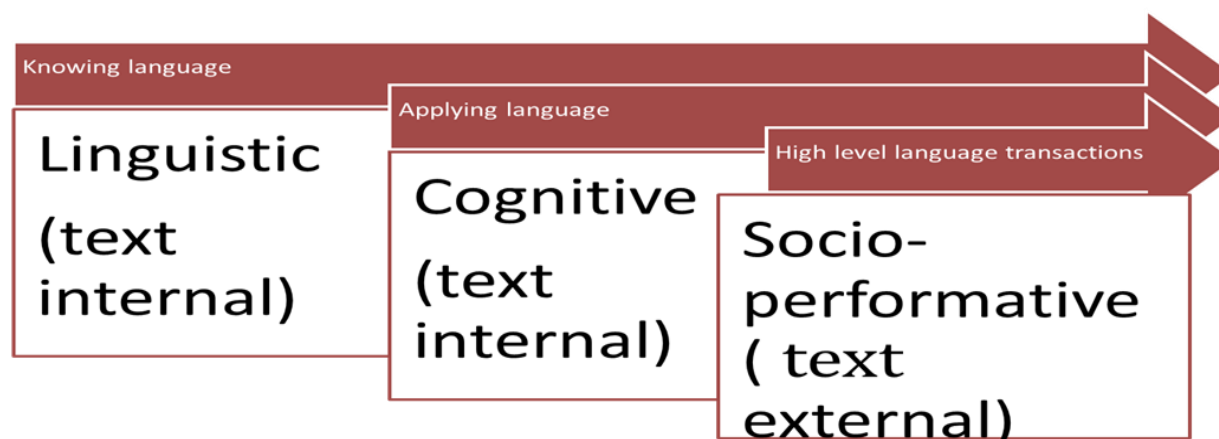
The analysis of EAP models by the proponents of New Literacies Studies (Lea, 2017; Lea & Street, 1998, 2006) has clearly shown how study and four skills based EAP courses, alienated from any real academic content, fail higher education and its students by divorcing literacy from cognitive processing and meaning making practices. Their arguments in favor of preparing students through their academic socialization and academic literacy models are convincing and persuasive. They have been heard by course developers worldwide, for example, Jiajing's (2007) call for practice of "future professional communication" (p. 98), such as job interviews and social exchanges in Chinese ESP programs. These descriptions of an EAPL pedagogy through which students practice integration into professional and academic discursive practices is supported by equally significant studies of discursive genres as embodied practices rather than objects of study (Bhatia, 2017; Patterson & Weideman, 2013). Although these specialists champion academic and professional socialization through performative pedagogies, these practices are not supported by equivalent models of assessment.

RQ 1 – What are the commonalities and differences between 21CSs and EAP literacies and their assessment?

Commonly accepted and quite limited definitions of EAPL, and current practices and mispractices in EAPL assessment have been thoroughly described above (*Academic literacies and their assessment*), as have those of 21CSs (*Overview of 21CSs and their assessment*). A strong difference between the two is that 21CSs definitions do not suffer from a reduction to and misidentification as the basic skills which comprise their ICT and digital literacy. EAPL, as we have noted, especially in the generic study skills model, has been reduced to language skills and textual/examination procedural know-how.

In Table 1, we graph the three dimensions common to both 21CSs and EAPL that are developed in greater detail in the ensuing explanation.

TABLE 1. The three dimensions of 21CSs and EAPL.



While there may some justification in using high stakes EFL/ESL examinations to measure candidate/practicant internal skills or mental/cognitive processes, which we have defined as ways of thinking and tools for working (c.f. ATC21s) to measure EAPL, there is much less to justify their use measure the 21CSs digital fluency and abstract qualities such as creativity and the ability to innovate. 21CSs and APL (Academic Practices Literacies) differ in their practicant internal forms, as 21CSs are less bound to expertise in the manipulation of textual information than are academic purposes literacies. Nonetheless, the IELTS and TOEFL examinations continue to be mandated for all candidates (e.g., migration), regardless of a focus on 21CSs, while the demise of ATC21S, and iSkills have removed internationally recognized models for assessment of 21CSs specific internal skills from circulation. In sum, while the IELTS and TOEFL might be reasonably used to assess EAPL candidate internal skills, their use as measures of 21CSs is questionable.

Critical genre theory, as posited by Bhatia, V., Anthony, L. & Noguchi, J. (2011), and Bhatia (2017) clearly develops candidate/practicant external skills as essential to both professional and academic practices. Again, we have used the ATC21s Framework (2014) to define the text external skills (ways of working, working in the world) as social/behavioral skills sets that extend beyond linguistic or digital proficiency.

This research on discursive genres and performative literacies in both professional and academic contexts forms the basis of our assertion that significant components of 21CSs and APL alike can only be developed and observed as performative. For Lea and Street (1998, 2006) learning to communicate within the discipline and its discourse community is essentially a process of socialization that reflects an emergent understanding of and ability to participate

in its traditions, including “relationships of power and authority” (as cited by Patterson & Weideman, 2017, p. 11). Darling-Hammond (2014) reiterates the essentially social aspect of 21CSs as “non-routine interactive skills important for collaborative invention and problem solving”, for which she shows a dramatic increase in demand, while demand for routine skills, whether analytic or cognitive, has fallen steeply (p. 2). That is, the ability to think on one’s feet, and to produce solutions in real time and space that have not been rehearsed through routine, have become far more important than knowledge of prior applications.

Although we clearly see in the above table that EAPL and 21CSs have a significant third dimension realized in social interactions and negotiations, we do not see any internationally recognized products, or even theoretical constructs, for their measurement. Academic measurements, however, developed in classes, programs or even institutions regularly assess reflective writings, (e-)portfolios, collaborative writing, presentations, projects, and group work as evidence of mastery of disciplinary genres, especially through synthesis and integrating information from different sources. These assessments, however are produced in local contexts, and although they may be adopted by others, they remain course, program or institution specific, and are rarely available outside of their institutions.

These latter assessments, especially e-portfolios and summative projects, point out an overall and largely ignored omission in assessment of both 21CSs and EAPL: the failure to distinguish short term and long-term skills and assessment goals. Most internationally recognized assessments discussed are specific to higher education entrance, whether into bachelor or post-graduate programs, and seek to inform candidates and institutions of the level of candidate preparation to deal with the needs of professional or academic programs. Critical genre theory, however, makes manifest that EAPL and 21CSs are needed for entry into and participation into professional discursive practices, not just for entry into programs that prepare candidates for a professional future. Capstone or exit products (portfolios, projects) required for graduation, are, as stated above, institution specific, and although frequently emulated, rarely exist in a common or generalized form. In sum, assessment has focused on assessment for program entry, not for program exit and transition into workplace situations. “EAP skills do not necessarily form a direct bridge to career skills”, as Bhatia, Anthony and Noguchi (2011, p. 147) aptly explain. The Cambridge CPSQ (Personal Styles Questionnaire) is a notable exception, and will be addressed in RQ3 when we examine models of professional competence

assessment within the workplace, and explore the feasibility of their adaptation to EAPL and 21CSs external skills assessment.

RQ2 – What are the misalignments between the objectives promoted for 21CSs and EAPL and their assessment?

Practicant internal and practicant external skills in 21CSs and APL and current assessment practices.

To show both alignment and misalignment of proficiencies and assessment, we use our analysis of 21CSs and APL (Academic Practices Literacies) that separates the desired skills/literacies into practicant internal and practicant external skills. The practicant internal skills include textual (written & spoken) literacy and digital fluency alike, and cognitive processes such as critical thinking (analysis and synthesis) and problem solving. The external skills are those practiced in the workplace or academic environment as discursive genres and contextually determined social interactions and negotiations. Both academic literacies and 21CSs require “the integration of discursive competence, disciplinary knowledge and professional practice” (Bhatia, Anthony & Noguchi, 2011, p.149).

As noted, 21CSs are less bound to expertise in the manipulation of textual information than are academic purposes literacies. Our definition of academic literacies does not yet specify ‘in English’: language status (first or second language user, or language used) does not modify the targeted skills. Although the 4 ‘Cs’: critical thinking, creativity, collaboration, and communication are stated by Pearson Education as specific to their Global Scale of English (2019), it is obvious that they are germane to all languages used globally. The first two – critical thinking and creativity, are internal skills, to which we add decision making and problem solving as specific to 21CSs ways of thinking (ATC21S, 2014). For internal academic skills, we emphasize more purely literacy skills for APL: reading and writing, synthesizing and producing texts, or ways of thinking and using language.

Assessment of practicant internal skills – native speakers of English and non-native speakers.

We make the distinction between APL (Academic Purposes Literacy) and EAPL (English for Academic Purposes Literacy) because we find the same distinction in the nationally and internationally renowned and acceptable assessments produced in English. The ACT (formerly American College Testing), the SAT (scholastic aptitude test) and the GRE (graduate

record examination) are all American produced assessments, whereas Cambridge Assessment Admission Testing is produced in and for the United Kingdom, and the Test of Academic Literacy Level is a South African product. These examinations have discipline specific assessments – there are six for the GRE, five for the SAT in addition to the verbal and mathematics (standard) examinations. The Cambridge test has medical and mathematics specific tests, and two assessments more specific to 21CSs: the TSA, or Thinking Skills Assessment, and the CPSQ, or Personal Styles questionnaire that addresses “how people approach tasks and interact with others” (Cambridge 2020). This latter has four variants; for health care workers, for schools, for teachers and for higher education. The Cambridge TSA does focus more specifically on what are generally called 21CSs, perhaps due the inception of these assessments in 2011 (as opposed to GRE development in 1936). Despite the inclusion of critical thinking and problem solving in the TSA, it remains, basically, a limited response paper and pencil – or screen and keyboard - test comprised of 90 MCQs (multiple choice questions). The CPSQ, it should be noted, is not strictly a test, but a questionnaire measuring views and habits rather than knowledge.

When we modify Academic Purposes Literacies by adding English, with the implication that English is a second or foreign language, we lose both subject specific and thinking skills specific assessment to generalized literacy tests. The most limited of these tests, Japan’s National Center Test (NCT) English Test, uses MCQs on grammar and lexicon, and excludes language communication as it requires no speaking or writing (Ozaki, 2010). Most tests, however, focus on three skills, or listening, reading and writing proficiency in English, most of which have controlled (MCQ or one word) responses, and a brief spoken response to six questions (ETS 2020). The best known of these assessments are the Cambridge produced IELTS (International English Language Testing System), and the American Education Testing Service (ETS) TOEFL (Test of English as a Foreign Language). Because these examinations are widely used for non-academic purposes, such as emigration to English speaking countries, or employment in multi-national corporations, the limitation to language literacy – even on the IELTS General Training Test – eliminates the thinking skills and interpersonal styles assessment developed by Cambridge Admissions Assessment. We will return to this key point when we develop our recommendations for assessment development to better address the cognitive processes promoted by both 21CSs and EAPL.

Overall, we find that international assessments as developed for native speakers do, or could, measure the internal cognitive processing skills, literacy skills and some interpersonal skills required for 21CSs and APL practicants. They are appropriately aligned to the internal linguistic and cognitive processes signaled as goals for practicants of 21CSs and APL alike. They are, however, misaligned with the assessments specifically addressed to non-native speakers, which are limited to a focus on strictly textual proficiency and exclude thinking and interpersonal skills as measured by the Cambridge TSA and CPSQ.

Assessment of practicant external skills – products vs. proficiencies.

It is in the assessment of skills manifested externally, in professional and academic discursive spaces, that we find not just a misalignment, but an absence of assessment to match stated performative goals of both 21CSs and APL/EAPL. ATC21S (2014) describes two performative categories in their presentation of 21CSs: “ways of working” and “skills for living in the world”. Collaboration and the ability to work in teams for project development and research are common to both 21CSs and E/APLs. In a general way, these abilities have been assessed in professional fields and academia through their products, rather than through their processes, and at the institutional level (or lower), as explained in RQ1. At course and program levels, assessment examines product rather than process, although research in psychology has amply demonstrated that the processes in problem solving, not the solutions, reveal desired interactive and cognitive skills (Khan Academy, 2018). In one of the few extensions of research to post-degree practices, psychological observation of workplace habits of mind indicates that these processes lead to success in corporate leadership development (Dweck & Hogan 2016) and international relations (Goldenberg et al, 2017).

Our investigation of RQ2 reiterates the results of our earlier question: the text external and interdiscursive competencies required for both 21CSs and EAPL are not measured by even the most sophisticated of the internationally accepted standard examinations. Not surprisingly, these tests, if used, result in a misalignment of construct and exam, for they attempt to capture text external performance responses as responses to text. When assessment of the third, performative, dimension of these skills exists, it is practiced at the local level. Although course and program assessments (portfolios, projects, presentations) are frequently emulated from course to course, program to program and institution to institution, the assessment tools are not standardized, and are not always generalizable. Moreover, these all rely on assessment of final

product (c.f. discussion in RQ1). The essential performative objectives of collaboration, problem solving and creative innovation common to EAPL and 21CSs are unobserved, unmeasured – and certainly undervalued - in product assessment.

RQ 3 –What are the aspects of current assessment practices to be retained and refined in assessment of 21CSs and EAPL, and what transformations should be proposed?

Our first proposition is commonsensical: ‘don’t throw out the baby with the bath water’. We encourage retention of the internationally renowned assessments of literacy produced by Cambridge, the ETS (and others) to measure the textual literacies and the ability to perform operations upon and with texts which form the linguistic and cognitive processing aspects of EAPL (see Table 1 above). They do this task with tested and reliable expertise. It should be noted, again, that 21CSs are less linguistically determined than EAPL, and thus less apt to be accurately measured by an IELTS/TOEFL type examination.

In our discussion of standardized examinations that target non-native speakers of English, as opposed to those that measure proficiencies and aptitudes required in higher education and some professional fields, we noted the development of the Cambridge TSA and the CPSQ, or Personal Styles Questionnaire, that addresses “how people approach tasks and interact with others” (Cambridge 2020). The TSA and CPSQ, developed in 2011, have filled an important gap in measurement. However, because these tools (the latter is a questionnaire, not a test) have not been adapted for the IELTS and TOEFL, the assessment gap in thinking skills and interactional practices remains to be filled for non-native English-speaking candidates. Thinking skills and knowledge of interactional norms are equally important in non-native speakers of English as in native speakers, and should be assessed equally in both populations. We strongly recommend that the assessment gap for non-native speakers be filled promptly, especially where the IELTS and TOEFL are (mis) used for migration and employment purposes (IELTS for migration, 2020, Educational Testing Service TOEIC[®], 2020). The project is not an unreasonable one as the TSA and CPSQ have been in use for almost ten years and have a visible/researchable presence that will enable developers to add these assessment types to current tests of linguistic competence.

The CPSQ also bridges a more general gap in assessment of the long-term, or professional employment goals for both types of preparation – 21CSs and EAPL – as it offers variants for schools, for teachers and for health care workers. Perhaps a format for professional insertion

readiness could be developed, modelled on the extant health care questionnaire, that might redirect potential employers and government institutions away from reliance on tests of textual literacy such as the IELTS and TOEFL. Because these latter two examinations are the best known worldwide, it is quite possible that government policy makers and employers alike turn to them in ignorance of other assessment possibilities.

Decisions made by governments regarding assessments and their viability, especially as regards cost and ease of administration can lead to the development of new models, or as we fear, to their demise, as was most probably the case with the ETS iSkills. This performative skills assessment developed by an internationally renowned provider, was acclaimed by Somerville, Smith and Macklin (2008) as a digital age tool. Academics, like ourselves, were impressed that test takers had to – within the prescribed period and on controlled computers - locate, evaluate and synthesize web information to produce a product in the form of an e-flyer, a presentation slide or an electronic data display (Fabbi, Gianoutsos & Forgues, 2012, Katz 2007). The examinees controlled the search process, the documents and the final product, all of which are much closer to the real-life conditions of professional and academic work in the digital age than responses to MCQs, however well written.

Without explanation, ETS discontinued the iSkills Assessment on December 31, 2016. Academics discussing the test's demise on ResearchGate hypothesized that the test had not been supported by individual state agencies or accrediting bodies, most likely due to the cost (Shudak, 2018). Idiosyncratic or unique responses, such as the iSkills results above, elude machine scoring, and require human raters.

Human evaluators greatly increase the costs and length of report time for large-scale assessments. They also have to be trained, supervised, assessed and retrained on a regular basis (Cambridge English, 2016). Human raters are used exclusively for the speaking and writing segments of the IELTSs, and are the primary raters of the writing components of the SAT and GRE examinations. E-raters, however are being increasingly used by the ETS as the second rater for double-rater evaluation, and as a control on human raters (Bridgman & Moynihan, 2005, Chen, Zhang & Bejar, 2017). E-raters have their own dangers, Bridgman and Moynihan warn, as they can be fooled by the syntactically and grammatically correct text devoid of argument or substance (c.f. study skills model of EAP), and thus should not be used exclusively.

Not surprisingly, the segments of the IELTS and TOEFL/TOEIC that require scoring by human agents are kept to a minimum. With the rapid expansion of technological possibilities and digital literacies, these scorers may be located anywhere with an Internet connection, as scanned writing texts and writing files may be exchanged electronically (Cambridge English 2016).

The recent forced use of electronic media for work and teaching, and ensuing high and evolving digital competency of administrators, educators, students, employers and employees has opened up newly feasible possibilities for assessing aspects of the performative and discursive aspects of 21CSs and EAPL: the recorded simulation, and the recorded online interview. European health institutions are currently replacing face to face training with simulation on a large scale (Dieckmann et al, 2020), and education has moved to online or combined instruction in many countries. The health professions, especially nursing and medicine, have frequently trained with simulated activities, and some health facilities have simulation rooms for enacted training (Blum, Muret-Wagstaff, Boulet, et al., 2018). Indeed, simulation is so widespread that it has its own journal: *Simulation in Health Care: Journal of the Society for Simulation in Health Care*.

Blum et al. (2018) report that the results of their “Simulation-based assessment to reliably identify key resident performance attributes” exceeded their expectations, and that they were able not only to rate the performance of medical residents, but to identify gaps ‘not typically captured’ in face-to-face evaluation. Their assessment, because it was digitally controlled, enabled use of common assessment scenarios and performance criteria across multiple sites and programs, while allowing for use of raters internal and external to the institutions involved. Their study not only validates the use of simulation for professional assessment, it also establishes that, due to massive digitalization, it is possible to extend assessment across programs and institutions, and to generalize both procedures and rating. Their study shows how locally developed simulation assessment can focus on process and decision making. Buckley & Kim (2020) similarly emphasize the ability of simulations to capture process:

“Critically, simulations can assess a test-taker’s process, not just her final outcomes. We can see where you hovered your mouse, in what order, for how long, and thus follow your thought process....The University of California recently pledged to look into developing simulations and realistic performance tasks as a replacement for

the SAT/ACT to better evaluate “creative problem solving, inductive and deductive reasoning, and analytical capability because these attributes are hallmark features of what has come to be expected out of higher education. . . [and the] new economic reality”

The type of assessment used in medical simulations, and the ones described above, exemplify what we advocate for accurately reporting on processes of decision making, collaboration and innovation and for assessing multi-person academic and profession interactions. Moreover, in current digitally mediated employment and education situations, all stakeholders have developed the digital literacy, knowledge and skills to support assessment by digital simulation. Digitally mediated simulations produced and assessed remotely are no longer alien concepts, but have become a daily reality to which academia and the workplace have, perforce, adapted.

We must, however, be sanguine about the costs in time, personnel and material required for the implementation of simulations as assessment. The governmental planners who legislate the use of standardized examinations by their departments of education, and the institutions governed by them, are more likely to attend to budgetary reasoning than to reasons of assessment construct and validity. In the medical field we have cited, simulations may well represent a reduction in cost of assessment, as a professional team would no longer need travel to a specified location to observe medical staff *in situ*. In that content, evaluation of simulation by trained raters may well represent a greater efficiency in the use of human and financial resources. For academic programs, however, the replacement of machine scored examinations by human scored simulations represents a considerable increase in the allocation of human resources, with attendant costs in terms of salaries, training and result time. This assumes that the academic programs affected, or their institutions would bear the cost of examinations where these are locally, regionally or nationally produced. Should the move to simulation be adopted by international assessment developers, the costs would more generally be passed on to the candidates.

Standardized examinations are already costly: local fees for the IELTS are approximately \$300, while the fees for the TOEFL vary from \$175 to \$245 by country. Simulated examination costs, unless subsidized by institutions or governments, could well be beyond the means of candidates, and add to extant inequalities in access to higher education.

Conclusions

As educator-researchers, we are firmly convinced that evolution at any stage of the theory-curriculum-classroom practices and assessment cycle requires concurrent evolution in all stages of the educational cycle (Kinash & Knight, 2013). The theoretical contributions of researchers cited in this article make it abundantly clear that curriculum and classroom practices have largely evolved to include the socio-pragmatic aspects of 21CSs and (E)APL, or are making significant steps towards their inclusion (Al Kayed 2020, Jianjing, 2007, Suomeli-Salmi & Derven, 2009). Our review suggests that the recommended constructive alignment of evolved course and program intended learning outcomes with assessment has not taken place. Our measurement of 21CSs and EAPL against currently available assessments clearly delineates the assessment situations where extant examinations perform well, and produce reliable results, where these assessments can be improved by following available and tested models, and finally where no assessments exist, but where solutions are possible and some viable models lead the way. For us, assessment of the third dimension of 21CSs and EAPL, the performative and externally visible socio-cultural practices of academics and professionals merits development. In increasingly digitalized academic and professional spaces, we suggest that assessment of simulations has become feasible. Assessment of simulations would allow for evaluative review of both interactional discursive skills, and the processes through which consensus, collaboration and innovation are achieved.

We recognize that the alignment of assessment with practice could entail high expenditures of both human and financial capital, but maintain that such an alignment supports an increased ability to “Extend[ing] higher education beyond the classroom: Integrating life and employability skills”, the purpose of the conference for which our research has been conducted. Resolution of the dilemmas we have outlined falls far beyond competencies of individual researchers. However, the audience for the conference and this article extends beyond the research community into the domains of professional employment, and government planning for human capital development to support a knowledge economy. We hope that we have successfully initiated a dialogue that will allow communities to question reliance on standardized examinations that do not measure the characteristics of a knowledge economy workforce, and to explore how they may allocate resources that encourage development of these characteristics through appropriate alignment of assessment with desired human capital outcomes.

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