The Effectiveness of a Proposed Program Integrating Focus on Form and Gamified Learning in Fostering Egyptian English Majors' Phrasal Verbs Comprehension and Production

Ebtihal A. Helal
(Ph.D., TEFL Lecturer, Faculty of Languages, October Modern Sciences & Arts (MSA)University)

APA Citation: Helal, E. A. (2024). The Effectiveness of a Proposed Program Integrating Focus on Form and Gamified Learning in Fostering Egyptian English Majors' Phrasal Verbs Comprehension and Production, BSU Journal of Pedagogy and Curriculum, 3(5), 88-169.

Received: 6/3/2024; Accepted: 10/4/2024; Published: 01/01/2024

Abstract
This study aimed at fostering Egyptian English sophomores' phrasal verbs comprehension and production through implementing a suggested program that combined some Focus on Form techniques and Gamified Learning activities. Participants were sixty-four students in two intact classes, and they were randomly assigned into an experimental group and a control group of thirty-two students each. The experimental group was taught English phrasal verbs according to the proposed program over a period of ten weeks during the spring 2023 semester of the academic year 2022/2023. The control group was taught the same phrasal verbs according to the regular method. The study focused on ten phrasal verbs categories. These were (a) food and drinks, (b) weather, (c) change, (d) education, (e) work, (f) travel and transportation, (g) daily activities, (h) health and fitness, (i) clothing and appearance as well as (j) money and shopping phrasal verbs. The study instruments were a pre/post phrasal verbs comprehension test and a pre/post phrasal verbs production test. Posttests results revealed that the experimental group significantly surpassed the control group in overall phrasal verbs comprehension and production as well as in their ability to make meaning of and produce each of the specified phrasal verbs categories. Moreover, comparing the experimental group's means on both pre-/posttests revealed the tangible progress in their comprehension and production of the target phrasal verbs. Therefore, it was concluded that the proposed program was effective in enhancing phrasal verbs comprehension and production among Egyptian English sophomores.

Keywords: Focus on Form, Gamified Learning, Phrasal verbs comprehension, Phrasal verbs production, Egyptian English majors
فعالية برنامج مقترح يدمج بين التركيز على التراكب و المعنى معاً و التعلم باللعب في تعزيز فهم و انتاج الأفعال العبارية لدى الطلاب المصريين المتخصصين في اللغة الإنجليزية

إعداد: د. إبتهاج عبد العزيز أحمد هلال
مدرسة مناهج و طرق تدريس اللغة الإنجليزية كلية أجنبية
كلية اللغات - جامعة أكتوبر للعلوم الحديثة و الأدب

الملخص:

هدفت الدراسة الحالية إلى تعزيز فهم و انتاج الأفعال العبارية بين طلاب الفرقة الثانية القسم الثاني من طلاب الفرقة الثانية المصرية المتخصصين في اللغة الإنجليزية وذلك من خلال تطبيق برنامج مقترح يدمج بين تقنيات التركيز على التراكب و المعنى معاً و أنشطة التعلم باللعب . وكان عدد الطلاب المشاركون في الدراسة 16 طالب و 16 طالبة وказал و سبعة طالب و سبعة طالبة من إثنين و ثلاثين طالباً وطالبة. و بينما درست المجموعة الدراسة النموذجية الأفعال العبارية النموذجية، ودرست المجموعة التجريبية الأفعال العبارية الإنجليزية وفقاً للبرنامج المقترح على مدى عشر أسابيع خلال فصل الربع الدراسى من العام الجامعى 2023/2024, مكانت المجموعة الدراسة النموذجية الأفعال العبارية النموذجية، ودرست المجموعة التجريبية الأفعال العبارية الإنجليزية وفقاً للبرنامج المقترح على مدى عشر أسابيع خلال فصل الربع الدراسى من العام الجامعى 2023/2024.

المصطلحات المفتاحية:

التركيز على التراكب و المعنى معاً, التعلم باللعب, فهم الأفعال العبارية, انتاج الأفعال العبارية, الطلاب المصريين المتخصصين في اللغة الإنجليزية
Introduction

In the third millennium, communication across the globe has been immensely facilitated with the spread of the internet and social media platforms. However, at the linguistic level, this communication will not be effective if the interacting individuals do not possess rich vocabulary to convey precise and accurate messages, thus ensuring the natural flow of ideas. Through a large vocabulary repertoire, a wide range of ideas and emotions can be expressed, and mutual understanding can be realized.

Through a large vocabulary repertoire, a wide range of ideas and emotions can be expressed, and mutual understanding can be realized. In an EFL learning context, mastering English vocabulary is an essential condition to achieve native-like communicative competence and fluency (Okoh & Ghanpsoon, 2019). Furthermore, vocabulary represents a necessary component of the four macro skills of reading, listening, speaking and writing (Sekhar, 2021). Therefore, fostering English vocabulary acquisition can contribute effectively to achieving higher levels of linguistic proficiency.

Vocabulary includes both single words and lexical chunks (or multi-word expressions). Lexical chunks comprise idioms, collocations and phrasal verbs (PVs). A phrasal verb (PV) can be defined as a lexeme that consists of a verb and a preposition, an adverbial particle or both (McCarthy & O'Dell, 2007; Richard, Platt & Platt, 2007; Wild, 2010; Al-Nasarat, 2018). Thus, in terms of number, a PV can be either a two- or three-word unit whose meaning cannot be usually worked out from the literal meanings of its constituents (Rodríguez-Puente, 2012; Barekat & Baniasady, 2014; Teng, 2017; Okoh & Ghanpsoon, 2019; Troy & Millar, 2019; Ottevaere, 2019; Rodríguez-Puente & Obaya-Cueli, 2022; Sakdidah, Egar & Sodiq, 2023).

Examples of two-word phrasal verbs include 'look up', 'get through', 'make out', 'give in', 'put off' and 'turn up'. Instances of three-word PVs include 'put up with', 'make up for', 'run out of', 'look forward to', 'catch up on' and 'look down on'. Thus, phrasal verbs are complex chunks where syntax and lexis overlap (Gardner & Davies, 2007; Jahedi & Mukundan, 2015; Ton, Tran & Dang, 2023).

In terms of register, most PVs are frequently used in informal colloquial spoken contexts (Ghorbanian & Jabbarpoor, 2017; Rodríguez-Puente & Obaya-Cueli, 2022). Hence, they are naturally employed in native speakers' daily conversations, movies, songs, newspapers headlines and talk shows (McCarthy & O'Dell, 2007; Badri-Ahmadi & Panahandeh, 2016; Ghorbanian & Jabbarpoor, 2017; Thyab, 2019; Ton, Tran & Dang, 2023). However, some PVs are used in formal contexts (McCarthy & O'Dell, 2007). Examples of PVs that can be used in formal settings include 'attend to', 'call upon', 'ascribe to' and 'bear upon' as in 'The local authorities will attend to (deal with) your appeal in due course.', 'We had to call upon (use) all the available resources.', 'They usually ascribe (explain) their increasing profits to hard work and innovative initiatives.' and 'The increasing crime rates bear upon (are connected to) drug smuggling and unauthorized weapon possession.'

According to Walter (2006), there are over 10,000 phrasal verbs in the English language, and they can be of British, American or Australian origin. On average, EFL
learners usually encounter one PV in every 150 English words they read or listen to (Gardner & Davies, 2007). Additionally, PVs are constantly coined by native English speakers (Badri-Ahmadi & Panahandeh, 2016; Ton, Tran & Dang, 2023). Therefore, acquiring PVs is important for EFL learners as it enhances their fluency, proficiency, naturalness and effective expression of ideas (Thyab, 2019).

Despite their importance, PVs represent a major source of difficulty for EFL learners (Jahedi & Mukundan, 2015; Badri-Ahmadi & Panahandeh, 2016; Ghorbanian & Jabbarpoor, 2017; Teng, 2018; Okoh & Ghompson, 2019; Ravn, 2021; Alshayban, 2022; Ton, Tran & Dang, 2023). This difficulty can be attributed to PVs high frequency, complexity, arbitrariness, unfamiliarity and opaque polysemous meanings in many cases (White, 2012; Badri-Ahmadi & Panahandeh, 2016; Garnier, 2016; Ghorbanian & Jabbarpoor, 2017; Alshayban, 2022; Ton, Tran & Dang, 2023). Therefore, many EFL learners avoid using PVs in communication (Jahedi & Mukundan, 2015; Ghorbanian & Jabbarpoor, 2017; Ton, Tran & Dang, 2023). For instance, Barekat and Baniasady (2014) found that Iranian English majors avoid using PVs in their writing, thus making the goal of achieving native-like proficiency unattainable.

When it comes to Arab EFL learners, most of them are unfamiliar with many phrasal verbs, especially with the prevailing traditional teaching methods where PVs are usually overlooked, deemphasized or ill-taught using ready-made lists of decontextualized PVs for memorization (Thyab, 2019; Elbehiry, 2020). Additionally, due to PVs complexity and unpredictability, many EFL Arab students tend to avoid using PVs whether in speaking or writing and use single-word verbs instead. Adding, many of these EFL Arab learners perceive PVs as a challenging area (Thyab, 2019; Shouran, 2021; Alshayban, 2022) because Arabic is a language that lacks PVs (Al-Nasar, 2018; Alshayban, 2022).

Due to phrasal verbs importance and inherent difficulty for EFL learners, new innovative approaches are needed to enhance their acquisition (Bronshteyn & Gustafson, 2015). Additionally, scholars and researchers including Strong (2013), Badri-Ahmadi & Panahandeh (2016), Al-Otaibi (2019), Strong & Boers (2019) and Sonbul, El-Dakhs & Al-Otaibi (2020) have called for more studies that could provide useful insights on how to promote PVs learning among EFL learners.

Among the modern innovative instructional approaches, integrating Focus on Form (FonF) techniques and Gamified Learning (GL) activities can foster PVs acquisition among Egyptian English majors. Starting with FonF, it is an approach to language learning and teaching that highlights the importance of striking the balance between form and meaning; it aims at drawing EFL learners' attention to specific linguistic forms, patterns and structures while maintaining natural communication flow (Saeidi & Chong, 2003; Ollerhead & Oosthuizen, 2005; Dastjerdi and Al’lipour, 2010; Ellis, 2015; Bandar and Gorjian, 2017; Teng, 2018). It was introduced by Michael Long in 1988 as a reaction against the traditional 'Focus on Forms' (FonFs) approach on the one hand and the meaning-focused Communicative Approach on the other hand (Yu, 2013; Ellis, 2015; Bandar and Gorjian, 2017).
FonF lessons can take place through either explicit or implicit teaching strategies (Farshi & Baghbani, 2015; Aydin, 2023). They can, also, combine both explicit and implicit techniques, thus maximizing EFL learners' opportunities to acquire the target forms faster and more successfully (Long, 2015; Kellem & Halvorsen, 2018). While accuracy is a main goal of FonF implementation, fluent spontaneous communication of ideas is an essential aspect of all FonF strategies (Ellis, 2015).

From a pedagogical point of view, FonF was originally introduced as an effective instructional approach to foster grammatical patterns acquisition among ESL/ EFL learners while ensuring meaningful authentic communication of ideas and emotions (Saeidi & Chong, 2003; Mohamed, 2006; Othman & Ismail, 2008). Based on research findings, FonF was found effective in promoting grammar skills among varied ESL/ EFL learners in different educational settings as in the studies of Saeidi and Chong (2003), Mohamed (2006), Bernet, Kelly, Aldersley, Schmitz, Khalsa, Panara and Keenan (2007), Fuentes (2017), Aqlahtani (2019) as well as Xu and Li (2022).

Although FonF was initially implemented to foster the acquisition of grammatical structures and patterns in meaningful contexts (Saeidi & Chong, 2007; Saeidi, Zaferanieh & Shatery, 2012), this form is not in fact limited to grammar. Rather, it can encompass a wide range of linguistic forms including vocabulary, spelling, phonology, grammar, discourse or spelling (Ellis, Basturkmen & Loewen, 2001; Ollerhead & Oosthuizen, 2005; Alcón, 2007; Laufer & Rozovski-Roitblat, 2011; Saeidi, Zaferanieh & Shatery, 2012; Kellem & Halvorsen, 2018; Teng, 2018).

In the field of vocabulary acquisition, form-focused instruction can help draw learners' attention to target lexical items in meaningful contexts through input enhancement (IE), input flood (IF), varied output tasks including dictogloss and communicative activities as well as explicit and implicit corrective feedback (CF) techniques (Alcón, 2007; Laufer & Girsai, 2008; Laufer & Rozovski-Roitblat, 2011, 2014; Saeidi, Zaferanieh & Shatery, 2012; Shintani, 2013; Badri-Ahmadi & Panahandeh, 2016). Therefore, Dastjerdi and A’lipour (2010) advocated employing FonF activities to foster EFL learners' acquisition of idiomatic expressions. Additionally, varied studies proved the effectiveness of FonF techniques in fostering EFL vocabulary acquisition such as the studies of Zarei, Esfandiari and Ne’man (2016), El-Grawany (2019), Fazlali and Shahini (2019) and Yu (2020). Moreover, FonF techniques implementation had a positive influence on promoting PVS acquisition among EFL adult learners as highlighted by the studies of Chiang (2012), Mall-Amiri, Oghyanous and Zohrehvand (2017), Teng (2017) as well as Mohammadi and Ghaemi (2022).

Moving to Gamified learning (GL), it is "an instructional method that turns learning into games" (Kingsley & Grabner-Hagen, 2018, p.1). It refers to "the bringing of game elements into non-gaming environments to capture the motivational factors found in games" (Fulton, 2019, p.1). Thus, gamification adds the fun factor to the EFL learning process, arouses students' interests, appeals to their varied learning styles, increases their motivation as well as engagement, enriches their learning experience and promotes their intended learning outcomes (ILOs) achievement (Rafiq, Pazilah, Yunus, Hashim & Sabri, 2019; Alomari, Al-Samarraie & Yousef, 2019; Vargas-Macias, Rodriguez-Hernandez & Sanchez-Saenz, 2020). Also, GL is an educational practice that is primarily student-centered (Tsay, Kofinas & Luo, 2018; Hashim, Rafiq & Yunus, 2019), thus empowering students and
fostering their self-confidence, especially when they score well and get badges or rewards for their distinguished performance in the assigned tasks.

In the field of EFL learning, varied GL platforms and applications were introduced including Quizizz, Quizlet, Kahoot, Padlet, Socratic and Duolingo (Zarzycka-Piskorz, 2016; Dehghanzadeh & Dehghanzadeh, 2020; El-Sakka, 2020; Saari & Varjonen, 2021; Ardi & Rianita, 2022; Pham, 2022a & 2022b; Panmei & Waluyo, 2023; Pham, 2023). These varied GL tools attempt to make EFL learning fun, enjoyable and interesting through employing varied game elements that encourage EFL learners to actively participate in the learning activities at hand. Thus, the main goal of these tools is to achieve better learning outcomes while ensuring EFL learners' motivation, engagement, satisfaction and enjoyment (Sundqvist & Wikström, 2015; Sun & Hsieh, 2018; Panmei & Waluyo, 2023).

GL was found effective in fostering EFL vocabulary learning in varied contexts. Thus, GL activities substantially improved EFL school students' vocabulary in the studies conducted by Saari and Varjonen (2021), Katemba, Tobing and Putri (2022) and Salimi and Zangeneh (2022). Also, in university settings, GL improved EFL undergraduates' vocabulary knowledge as proved by the studies of Dizon (2016), Waluyo and Bucol (2021) and Ali and Abdulgane (2022). It is worth noting that Kijpoonphol's and Phumchanin's (2018) study proved that GL remarkably improved EFL tenth graders' comprehension and retention of PVs. Also, in Iran, Vazirabad and Farrokhi (2020) proved that GL improved adult EFL learners' PVs knowledge.

Moving to Quizizz, it is an online interactive user-friendly joyful GL platform that makes use of varied game elements including avatars, memes, leaderboards, points, timers and teams (Mansur & Fadhilawati, 2021). It can be accessed using smartphones, laptops, tablets and other handheld electronic devices (Zhao, 2019). Furthermore, Quizizz can be used for assessment purposes to reduce students' test taking anxiety due to its playful fun nature (Pitoyo, Sumardi & Asib, 2019; Zuhriyah & Pratolo, 2020). Additionally, one of its distinctive features is offering students immediate informative feedback. Thus, once the students submit their answers to the given questions, memes or motivating expressions appear on the screen to inform them whether their answers to these questions are right or wrong (Mansur & Fadhilawati, 2021). Besides, students' ranks and test results can be viewed and downloaded immediately after they submit their answers to the test items (Zhao, 2019).

Empirical evidence proved that Quizizz use enhanced EFL school students' vocabulary acquisition as in the studies of Katemba and Sinuhaji (2021) and Nabila, Muliat and Talib (2023). At the university level, Quizizz activities promoted EFL vocabulary knowledge among Turkish engineering majors as proved by Bal's (2018) study.

Despite the importance of PVs acquisition to Egyptian English majors, no study- to the researcher's best knowledge- was conducted to promote Egyptian English sophomores' comprehension and production of PVs through combining FonF techniques and GL activities. Therefore, the current study is an attempt to investigate this area and explore its effectiveness.
Context of the problem

Observation of English sophomores' classes at October Modern Sciences and Arts (MSA) University revealed that most of them avoided using PVs whether in speaking or in writing. Moreover, while teaching these students, the researcher noticed that many of them faced considerable difficulties while attempting to deduce the non-literal meanings of opaque PVs in reading and listening texts.

To further examine the problem, the researcher conducted two diagnostic tests on a random sample of twenty-five English sophomores at MSA University. The first test measured these EFL learners' ability to make meanings of PVs, and it consisted of thirty items. In this test, students were asked to answer fifteen MCQs where they deduced the meanings of underlined PVs in given sentences. They were, also, asked to match the underlined PVs in given fifteen sentences with their synonyms. Analysis of the PVs comprehension diagnostic test revealed that these English undergraduates faced considerable difficulties while attempting to find out the meanings of semi-transparent and opaque PVs.

The second diagnostic test assessed English sophomores' ability to produce correct PVs in given sentences, and it comprised thirty items also. In this test, they were requested to replace the underlined verbs or phrases in fifteen sentences with synonymous PVs using the initials given as clues. They were, also, required to correct the PVs errors in fifteen sentences using the given PVs synonyms as hints. Analyzing the diagnostic PVs production test results revealed that more than 70% of these students were unable to produce correct PVs in given sentences.

Through comparing the students' mean scores on both diagnostic tests, it became evident that these students' ability to produce accurate PVs lagged far behind their ability to comprehend them in varied contexts. Results of both tests go in line with the findings of the studies conducted by Al-Nasarat (2018), Thyab (2019), Shouran (2021) and Alshayban (2022) demonstrating that Arab EFL adult learners encountered tangible obstacles while attempting to interpret or use PVs in varied written or spoken contexts.

As the researcher observed the teaching methods employed by university instructors of English sophomores at MSA University, it became evident that:

(a) PVs represented an overlooked aspect of these students' linguistic study. To clarify, PVs were seldom highlighted in these students' classes as most of the attention was dedicated to analyzing themes of literary works, developing academic writing skills and conducting morpho-syntactic analyses.

(b) Students were not encouraged to make meaning of PVs in authentic texts using contextual clues.

(c) Students were not motivated to use PVs in varied spoken discourses (including conversations, role plays, classroom discussions and oral presentations) to attain native-like fluency, naturalness and competence.
(d) FonF techniques such as IE, IF, dictogloss, mini-lessons, focused communicative tasks and explicit as well as implicit CF were not applied in these students' classes to promote their ability to interpret and use PVs.

(e) GL activities and platforms were not employed to foster these students' comprehension and production of PVs.

Problem

The present study problem was illustrated in Egyptian English sophomores' limited ability to comprehend and produce PVs in a way that hampered their fluent, native-like communication in varied spoken and written settings. This might be attributed to PVs polysemous meanings, huge number and arbitrariness, and it might be due to the adopted traditional teaching methods that do not encourage these students to interpret and use PVs in authentic communicative contexts.

Research questions

This study is an endeavour to provide answers to the following principal question:

"What is the effectiveness of a proposed program integrating FonF and GL in fostering Egyptian English sophomores’ PVs comprehension and production?"

The following sub-questions emerged from the study chief question:

1. What are the theoretical foundations of a proposed program combining FonF techniques and GL activities for promoting PVs comprehension and production among Egyptian English sophomores?

2. What are the components of the proposed program that integrates FonF techniques and GL activities?

3. How far is the proposed program effective in developing Egyptian English sophomores’ overall comprehension and production of PVs?

4. How far is the proposed program effective in developing Egyptian English sophomores’ comprehension and production of each of the specified ten PVs categories?

Hypotheses

This study attempted to verify the following hypotheses:

(a) Hypotheses comparing the experimental and control group mean scores on the posttests:

1. There is a statistically significant difference between the mean scores of the experimental group exposed to the proposed program integrating FonF and GL and the control group receiving regular instruction on the posttest in overall PVs comprehension in favour of the experimental group.
2. There are statistically significant differences between the mean scores of the experimental group and the control group on the posttest in comprehending each of the specified ten PVs categories in favour of the experimental group.

3. There is a statistically significant difference between the mean scores of the experimental group and the control group on the posttest in overall PVs production in favour of the experimental group.

4. There are statistically significant differences between the mean scores of the experimental group and the control group on the posttest in producing each of the specified ten PVs categories in favour of the experimental group.

(b) Hypotheses comparing the experimental group mean scores before and after the treatment:

5. There is a statistically significant difference between the mean scores of the experimental group on the pre-test and the posttest in overall PVs comprehension in favour of the posttest.

6. There are statistically significant differences between the mean scores of the experimental group on the pre-test and the posttest in comprehending each of the specified ten PVs categories in favour of the posttest.

7. There is a statistically significant difference between the mean scores of the experimental group on the pre-test and the posttest in overall PVs production in favour of the posttest.

8. There are statistically significant differences between the mean scores of the experimental group on the pre-test and the posttest in producing each of the specified ten PVs categories in favour of the posttest.

Objectives

The main purposes of this study were:

1. Specifying appropriate techniques for constructing a proposed program integrating FonF and GL to develop English sophomores’ PVs comprehension and production.

2. Designing a proposed program combining FonF techniques and GL activities to foster English sophomores’ PVs comprehension and production.

3. Measuring the impact of the suggested program on enhancing English sophomores’ PVs comprehension and production.

Delimitations

This study was restricted to:

1. Two intact English sophomores’ classes at MSA University in Giza governorate;

2. A specific duration for conducting the experiment (ten weeks of the spring 2023 semester);

3. Eleven sessions for applying the suggested program including an introductory session and the following ten intervention sessions; and

4. Developing only the experimental group’s comprehension and production of (a) food and drinks, (b) weather, (c) change, (d) education, (e) work, (f) travel and transportation, (g) daily activities, (h) health and fitness, (i) clothing and appearance as well as (j) money and shopping PVs.


Definition of terms

Focus on Form (FonF) refers to “any pedagogical practice undertaken by second language (L2) teachers with the goal of drawing their students’ attention to language form” while maintaining communication of meaningful messages (Collins, 2012, p. 2187). In other words, FonF is an instructional approach that pays equal attention to both form and meaning (Ellis; 2015, p.4; Kellem & Halvorsen, 2018, p.29) through comprehensible input, interaction and varied output tasks (Bandar & Gorjian, 2017, p.89; Teng, 2018, p.146; Dobakhti & Khorrami, 2020, p.27; Kemaloglu-Er, 2021, p.122).

At the operational level, FonF is defined in this study as the instructional framework according to which IE, dictogloss tasks, mini lessons, input- and output-based tasks as well as CF techniques are designed and implemented to develop the experimental group's ability to make meaning of and produce the specified ten PVs categories in varied contexts.

Gamified learning (GL) refers to "the use of game mechanics to make learning and instruction more fun" (Kapp, 2012, p. xxi). It can be, also, defined as the application of game design components in instructional environments to foster EFL students' active learning, engagement, intrinsic motivation, enjoyment, peer collaboration and achievement of ILOs (De-Marcos, Domínguez, Saenz-De-Navarrete, & Pagés, 2014, p.82; Majdoub, 2021, p.2053; Yaccob et al., 2022, p.179; Jie, Zakaria & Hassan, 2023, p.479).

Operationally speaking, in this study, GL refers to applying varied instructional online games on Quizizz Platform using the experimental group students' smartphones to foster their ability to make meaning of and produce the specified ten PVs categories. These instructional games included choosing the most appropriate meanings of underlined PVs in given sentences, writing down the meanings of contextualized PVs in given sentences as well as using given clues to fill in the gaps with suitable PVs and to correct the underlined PVs errors in given sentences.

Phrasal verbs (PVs) are multi-word lexical combinations where verbs and adverb particles, prepositions or both function as single units (Zohaib & Sarfraz, 2019, p.1; Booth & Davies, 2021, p.10).

At the operational level, PVs are defined in this study as the two-and three word verb constructions whose meanings cannot be worked out from their individual constituents. Specifically speaking, these are the multi-word verb combinations relevant to themes of (a) food and drinks, (b) weather, (c) change, (d) education, (e) work, (f) travel and transportation, (g) daily activities, (h) health and fitness, (i) clothing and appearance as well as (j) money and shopping.

PVs comprehension is the ability to make meaning of multi-word verbs in given sentences and texts (Sarab & Kardoust, 2014, p.104; Qorbanian, Safaie-Qalati & Amini, 2016, p.156; Sonbul, El-Dakhs & Al-Otaibi, 2020; Vazirabad & Farrokhi, 2021, p.119).

In this study, it can be operationally defined as the experimental group's ability to make meaning of the specified ten PVs categories in given sentences and texts.
**PVs production** is the ability to accurately use multi-word verbs in given sentences as well as in authentic speaking and writing tasks (Abdul-Rahman & Abid, 2014, p.8; Kamarudin, Majid, Zamin & Daud, 2019, p.144; Tanihardjo, 2019, p.370; Albaqami, 2021, p.1659).

Operationally speaking, it refers to the experimental group's ability to accurately use the specified ten PVs categories in given sentences and in real-life spoken as well as written texts.

**Variables of the study**

**Independent variable**: This refers to the study intervention (the proposed program integrating FonF techniques & GL activities) that was implemented with the experimental group.

**Dependent variable**: This denotes the experimental group's overall PVs comprehension and production as well as their comprehension and production of the specified PVs ten categories.

**Theoretical background**

1. **Phrasal verbs**
   
   1.1 Definitions and importance of phrasal verbs
   
   Phrasal verbs (PVs) are multi-word verbs that consist of either (i) a verb and a preposition as in 'clock in', 'hang on', 'look for' and 'look after', (ii) a verb and an adverb particle as in 'pull out', 'set up', 'slow down' and 'put away' or (iii) a verb, an adverb particle and a preposition as in 'step out of', 'get back to', 'come down with' and 'cut down on' (McCarthy & O'Dell, 2004, 2007; Richards, Platt & Platt, 2007; Marashi & Maherinia, 2011; Badri-Ahmadi & Panahandeh, 2016; Hameed, 2017; Omidian, Akbary & Shahriari, 2019; Thyab, 2019; Booth & Davies, 2021). In other words, they are verb constructions whose meanings are more than the sum of their components (Rodríguez-Puente, 2012; Koffi, 2015; Zohaib & Sarfraz, 2019).

   PVs are an important aspect of English vocabulary since they are used frequently in daily conversations, novels as well as in newspaper and magazine articles (McCarthy & O'Dell, 2007; Hameed, 2017). However, they are more common in spoken language and fictions than they are in newspapers and magazines (Omidian, Akbary & Shahriari, 2019). Acquiring PVs facilitates comprehension and helps EFL learners achieve native-like fluency (Elbehiry, 2020). Additionally, using PVs in spoken discourses makes EFL learners' speech sound more natural (Omidian, Akbary & Shahriari, 2019). Therefore, PVs acquisition fosters EFL learners' communicative competence (Mart, 2012; Hameed, 2017; Garcés-Manzanera, 2019). Moreover, some PVs are used in academic and business writing (Zohaib & Sarfraz, 2019).

   1.2 Phrasal verbs types

   There are varied classifications of PVs. Hence, from a grammatical perspective, PVs can be either transitive or intransitive. Transitive PVs take a direct object while intransitive PVs do not take a direct object (McCarthy & O'Dell, 2007; Richard, Platt & Platt, 2007; Büyükkarci, 2010; Ahmadi & Panahandeh, 2016; Alshayban, 2022). Examples of transitive PVs include 'knock down' and 'sort out' as in 'They knocked down the old building.' and 'We are trying hard to sort out the housing problem'. Examples of intransitive PVs include
'branch off' and 'turn up' as in 'The road branched off to the sea.' and 'He turned up on time.'

It is worth noting that some PVs can be either transitive or intransitive depending on the context (McCarthy & O'Dell, 2007; Büyükkarci, 2010; Badri-Ahmadi & Panahandeh, 2016). Examples of these PVs include 'take off' and 'drop off'. Thus, 'take off' is transitive in 'I took off (removed) my jacket.', but it is intransitive in 'The plane took off (left the ground) ten minutes ago.' Likewise, 'drop off' is transitive in 'I'll drop her off (drive and leave her) at the bus stop.', yet it is intransitive in 'He dropped off (fell asleep) while he was watching TV.'

Transitive PVs can be further divided into separable and inseparable verbs (McCarthy & O'Dell, 2007; Richard, Platt & Platt, 2007; Büyükkarci, 2010; Badri-Ahmadi & Panahandeh, 2016; Thyab, 2019; Alshayban, 2022). In separable PVs, the object can come after the particle or between the verb and the particle if it is a noun (McCarthy & O'Dell, 2007; Richard, Platt & Platt, 2007; Thyab, 2019). Examples of separable PVs include 'mark down', 'turn off' and 'bring in' as in 'The teacher marked down Ann/ marked Ann down because of frequent grammatical errors in her essay.', 'They turned off the lights/ turned the lights off.' and 'This new marketing strategy will bring in more customers/ bring more customers in.' However, if the object is a pronoun, it must come between the verb and the particle, and it cannot come after the particle (McCarthy & O'Dell, 2007; Richard, Platt & Platt, 2007).

Unlike separable PVs, inseparable PVs do not allow the object to come between the verb and the particle; hence, objects can only come after the particles (McCarthy & O'Dell, 2007; Richard, Platt & Platt, 2007). Examples of inseparable PVs include 'look after', 'contend with' and 'break into' as in 'She looked after her sick father.', 'Lately, I had to contend with several problems.' and 'Burglars broke into the bank yesterday.'

Semantically speaking, PVs can be divided into three categories: transparent, semi-transparent (completive/aspectual) and opaque (figurative) (Riguel, 2014; Gandorah, 2015; Troy & Millar, 2019; Zohaib & Sarfraz, 2019). Transparent PVs meanings can be easily understood from the meanings of their immediate constituents as in 'go out', 'sit down', 'take away' and 'come in'. The meanings of semi-transparent PVs are clarified only when they are contextualized. Examples of semi-transparent PVs include 'cut off', 'eat up' and 'burn down' as in 'The accident cut off the electricity supplies', 'Eat up your food!' and 'The hospital was burned down.' The meanings of opaque PVs are idiomatic and cannot be worked out from their constituents. Opaque PVs include 'play down', 'put forward', 'pass away' and 'face up to' as in 'We cannot play down (underestimate) the role of unemployment in increasing poverty rates.', 'She is going to put forward (propose) a new development plan in the upcoming departmental meeting.', 'He passed away (died) two weeks ago.' and 'We need to face up to (accept the unpleasant situation of) the rising inflation rates.'

To facilitate PVs acquisition, they can be, also, classified according to varied themes. Hence, there are PVs that are related to education, work, technology, sports, money and shopping, health, crime and law, daily life, relations, change, weather, clothing and appearance, food and drinks, communication, emotions as well as travel and transportation (McCarthy & O'Dell, 2004, 2007; Walter, 2006; Elbehiry, 2020; Booth & Davies, 2021).
is worth noting that this theme-based classification was adopted in the current study as it suits the purpose of the study, i.e., promoting PVs comprehension and production among English sophomores.

1.3 Difficulties involved in teaching and learning English PVs

As indicated earlier, PVs constitute a knowledge gap and a major challenge for EFL learners (Yasuda, 2010; Mart, 2012; Aldahesh, 2013; Riguel, 2014; Barekat & Baniasady, 2014; Bronshteyn & Gustafson, 2015; Garnier, 2016; Hameed, 2017; Al-Otaibi, 2019; Omidian, Akbari & Shahriari, 2019; Elbehiry, 2020). Therefore, EFL learners usually avoid using them in communicative situations due to PVs unfamiliarity, complexity and multiplicity in addition to these learners' fear of misusing particles in PVs (Zohaib & Sarfraz, 2019). Moreover, Vasbieva (2015) maintained that EFL undergraduates' underuse of PVs in speaking tasks did not stem only from avoidance; it could be, also, the result of ignorance and inadequate passive learning.

Difficulties related to PVs learning might, also, result from their underrepresentation in EFL learners' textbooks. For example, after examining a corpus of thirty British and Belgian EFL textbooks, Ottevaere (2019) found that PVs were underrepresented in these books, and they were primarily practised through gap-filling exercises. Furthermore, even when EFL students attempt to use PVs to express varied ideas and emotions, they usually make different types of errors. For instance, Sakdidah, Egar & Sodiq (2023) classified the PVs errors committed by Indonesian EFL intermediate level high school learners while writing narrative discourses into (a) omission, (b) addition, (c) misordering and (d) misformation errors.

Moving to Arab ESL/EFL learners, Gandorah (2015) found out that Arab ESL learners avoid using English PVs in conversations. He, also, discovered that this avoidance tendency was more prevalent among intermediate level ESL speakers than among advanced level ESL learners. Also, Mahmoud (2015) discovered that Omani English sophomores used more literal than opaque PVs in their free essay writing. Besides, he attributed PVs underrepresentation in some Arab EFL learners' writing to employing the PVs avoidance strategy, PVs ignorance and the passive teaching approaches that focus on making meaning of PVs without giving these learners authentic chances to produce them whether in writing or speaking. Additionally, Hameed (2017) found that Iraqi English majors were incompetent users of PVs. Furthermore, Al-Nasarat (2018) found that Jordanian EFL undergraduates encountered tangible obstacles while interpreting PVs.

In his descriptive study, Boukhalfa (2019) proved that Algerian third year English majors rarely used PVs in narrative essay writing. Furthermore, when PVs were evident in these Algerian EFL students' academic writing, they were inadequately employed. Similarly, Thyab (2019) concluded that Iraqi EFL learners found PVs confusing and difficult due to the inadequate methods adopted to teach PVs to these learners. On his part, Shouran (2021) found that Libyan EFL learners faced considerable syntactic and semantic difficulties while using PVs in writing. As for Alshayban (2022), he found that Saudi EFL intermediate and advanced levels adults recognized and used more PVs while writing texts than while listening to spoken discourses.
PVs difficulty, thus, stems from their varied meanings according to the context, opacity, polysemy, unpredictability and huge number (Al-Otaibi, 2019; Omidian, Akbary & Shahriari, 2019). Also, the traditional methods according to which EFL learners memorize lists of PVs are ineffective (Fu, 2021). To elaborate, many PVs can have varied meanings in different contexts (Büyükkarci, 2010; Demetriou, 2020). For example, the PV 'to pick up' can mean 'to acquire' as in 'The child picked up his mother tongue as he interacted with his parents and older siblings.' It can, also, mean 'to buy' as in 'On my way home, I stopped at a nearby store and I picked up a carton of milk.' A third meaning of 'pick up' is 'to take someone in your vehicle' as in 'I'll pick you up on my way to the hospital.' A fourth meaning of 'pick up' is 'to become stronger' as in 'It seems that the wind will pick up soon.' A fifth meaning of 'pick up' is 'to select or choose' as in 'After long hours of hard work, Adam was picked up to be employee of the month.'

Opacity refers to the fact that many PVs have figurative meanings that cannot be simply worked out from the literal meanings of their constituents (Al-Otaibi, 2019; Omidian, Akbary & Shahriari, 2019; Okoh & Ghampson, 2019; Ton, Tran & Dang, 2023). Examples of one particle PVs with opaque meanings include 'to dig in' (to start eating enthusiastically) as in 'Once the food was served, we dug in,' 'to beat down' (to shine intensely) as in 'In August, the sun beats down early in the morning,' and 'to wear off' (to gradually disappear) as 'As the company started to make considerable profits, all my fears wore off.' Furthermore, instances of two-particle PVs with figurative non-transparent meanings include 'to put up with' (to tolerate) as in 'I cannot put up with Laura's bad temper,' 'to make up for' (to compensate) as in 'I hope they can make up for this huge loss.' and 'to run out of' (to consume) as in 'We have run out of flour; we need to buy some more soon.'

A main source of difficulty and confusion for Arab EFL learners is the fact that varied particles combinations with the same verb can yield completely different meanings (Al-Otaibi, 2019; Omidian, Akbary & Shahriari, 2019) as in the case of 'call for' (to publicly demand or to ask for an action to happen), 'call by' (to visit someone briefly on your way to somewhere else), 'call back' (to return a telephone call), 'call off' (to cancel a plan or an event that was about to take place' and 'call up' (to telephone someone' and 'call round' (to visit someone). Another example is the verb 'put' which can combine with the particles 'on', 'out', 'away', 'off', and each time a new meaning will emerge. Thus, 'put on', 'put out', 'put away' and 'put off' respectively mean 'to wear', 'to extinguish a fire', 'to keep or save something in its normal place' and 'to postpone'.

1.4 Techniques used to foster PVs acquisition

There are varied techniques that can promote PVs learning among ESL/ EFL learners. For example, PVs can be acquired through incidental learning during reading and classroom discussions (Hare, 2010; Omidian, Akbary & Shahriari, 2019). They can be, also, acquired through explicit instruction (Garnier, 2016; Omidian, Akbary & Shahriari, 2019). On their part, Ton, Tran and Dang (2023) proved that combining incidental learning, consciousness-raising activities and purposeful learning promoted Vietnamese non-English majors' PVs knowledge and recall, thus providing empirical evidence for the positive influence of integrating implicit and explicit instruction on PVs acquisition.
Visual illustration of PVs can, also, have a tangible impact on their acquisition. To clarify, Marashi and Maherinia (2011) found that using pictures fostered Iranian EFL pre-intermediate students' use of PVs in speaking. Therefore, they recommended pictorial teaching of PVs. Likewise, in Farsani's, Moinzadeh's and Tavakoli's (2012) study, it was found that picture explanation tasks fostered Iranian EFL intermediate level learners' acquisition of PVs. Moreover, Kim (2019) proved that combining video clips with written texts fostered EFL South Korean college learners' recall of PVs. On his part, Fu (2021) found that using multimedia enhanced ESL community college students' PVs learning. Therefore, he recommended using pictures, cartoons, music and animation to teach PVs to adult ESL learners.

Implementing the Communicative Approach activities such as discussions, role plays, simulations, games and conversations can be a successful procedure to foster PVs learning as these activities enhanced Turkish English majors' PVs knowledge in Büyükkarci's (2010) study. Additionally, output tasks, concept mapping, inferencing and blended learning (BL) are effective in promoting PVs learning among ESL/ EFL adults. Therefore, Nassaji and Tian (2010) implemented the output tasks of gap-filling and editing/error correction to foster PVs knowledge among ESL low-intermediate level undergraduates in Canada. Besides, Nosratinia, Amini and Sarabchian (2013) found that concept mapping and lexical inferencing strategies promoted Iranian EFL adult female learners' PVs knowledge and retention. Furthermore, Mohammadi and Mirdehghan (2014) proved that BL enhanced PVs acquisition among Iranian EFL pre-intermediate adult learners.

Contextualizing PVs is a viable option to foster their comprehension and retention. Thus, PVs can be taught in the context of conversations, authentic texts and songs (Ganji, 2011; Mart, 2012; Aldahesh, 2013; Hameed, 2017). By so doing, EFL learners are encouraged to guess the PVs meanings from the context. Gap-filling exercises are, also, recommended to foster EFL learners' acquisition of PVs (Mart, 2012). Following this contextualization procedure, EFL learners can be requested to classify the newly acquired PVs into transitive, intransitive, separable and inseparable PVs. To foster PVs production, students can, also, use PVs in letter or story writing and in dialogues (Mart, 2012).

Employing a clear teaching strategy and extracurricular activities can play an influential role in PVs acquisition. Therefore, Vasbieva (2015) advocated the implementation of a well-defined teaching strategy to promote PVs acquisition among EFL undergraduates. This strategy focused on (a) contextualizing each PV in a text or a sentence and (b) asking students to underline the PV, write it down, check its meaning in a dictionary and use it in speaking and writing tasks that are directly related to their interests and personal lives. Also, out-of-class activities practised during leisure time such as extensive reading of English books, newspapers and magazines as well as watching films and TV shows can contribute to PVs acquisition among EFL undergraduates (Omidian, Akbary & Shahriari, 2019).

Input type, group work implementation and digital games can remarkably foster PVs acquisition among EFL learners. To clarify, Ghorbanian and Jabbarpoor (2017) compared the influence of simplified, elaborated and unmodified written input on Iranian EFL
intermediate level teenagers' PVs acquisition and retrieval. Based on their study findings, it was concluded that modifying input through either simplification or elaboration facilitated PVs acquisition and recall among the study participants. Additionally, Khodareza (2016) found that collaborative tasks fostered Iranian intermediate level TEFL majors' PVs learning. Furthermore, Vazirabad and Farrokhi (2021) proved that playing digital games in formal instructional settings enhanced PVs learning and comprehension among Iranian EFL intermediate level learners.

To set priorities, Thyab (2019) recommended teaching frequently used PVs in order to enhance EFL learners' ability to comprehend and use them effectively in authentic settings. Based on cognitive linguistics research, Al-Otaibi (2019) recommended teaching particles meanings to facilitate PVs comprehension and retention. On her part, Elbehiry (2020) suggested using idiomatic translation as a feasible technique to help EFL learners overcome the difficulties they encounter while acquiring PVs.

Employing DDL and corpora can be, also, a useful strategy to facilitate PVs acquisition (Sarab & Kardoust, 2014; Al-Otaibi, 2019; Okoh & Ghampson, 2019; Troy and Millar, 2019) as these corpora present authentic, natural examples of PVs use by native English speakers. Therefore, Sarab and Kardoust (2014) proved that DDL corpus-based activities developed Iranian male English majors' comprehension of PVs. Also, Beikian and Esmailnia (2023) proved that DDL corpora activities minimized Iranian adult EFL learners' PVs errors in paragraph writing.

2. Focus on Form (FonF)

2.1 Definitions and origin


According to Schmidt's (1995, 2001) Noticing Hypothesis, L2 learners must notice the target linguistic forms in order to turn the input into intake and successfully acquire these linguistic forms (Saville-Troike, 2006; Ünlü, 2015; Nhung, 2020). This is primarily achieved through IE, IF and input-based tasks in FonF lessons (Nassaji & Fotos, 2004; Ollerhead & Oosthuizen, 2005; Shintani, 2012; Szudarski & Carter, 2016; Mall-Amiri, Oghyanous & Zohrehvand, 2017; Saadi & Saeidi, 2018; Fazlali & Shahini, 2019; Safdari, 2019; Dobakhth & Khorrami, 2020; Mohammadi & Amjadiparvar, 2022; Mohammadi & Ghaemi, 2022; Mohamed, Karboush & Abou-Shosha, 2022; Cho & Song, 2023).

According to Swain's (1995, 2005) Output Hypothesis, L2 learners must be pushed to produce an output through writing and speaking tasks as input alone is not enough to ensure adequate level of SLA. Thus, according to Swain (1995, 2005), output plays three
essential functions. These are enabling EFL learners to (a) notice the gaps in their linguistic knowledge, (b) try out linguistic forms in their utterances and writing and see if they work or not and (c) reflect upon their performance to enhance its accuracy, comprehensibility and suitability levels (Saville-Troike, 2006; Abadikhah & Zarrabi, 2011; Xiu& Yuqin, 2013; Pannell, Partsch & Fuller, 2017; Sun, 2020; Zhao, 2021; Liu, 2022; Li, Li & Sun, 2023). It is important to note that trying out linguistic items that EFL learners are not sure of enables them to receive the teacher's informative feedback in the form of requests for clarification as well as explicit and implicit correction (Saville-Troike, 2006; Asadollahfam, Kuhi, Salimi & Mirzaei, 2012; Zohrabi & Rezaie, 2012; Bandar & Gorjian, 2017; Astia, 2018; Fathimah, 2020).

Based on the Output Hypothesis, FonF lessons attempt to push EFL learners to produce the specified linguistic forms through output tasks like dictogloss, editing/error correction and gap-filling tasks as well as varied communicative tasks (Mohamed, 2006; Spada & Lightbown, 2008; Vasiljevic, 2010; Asadollahfam, Kuhi, Salimi & Mirzaei, 2012; Yu, 2013; Beniss & Bazzaz, 2014; Milne, 2017; Kellem & Halvorsen, 2018; Saadi & Saeidi, 2018; Xu & Li, 2022). Also, FonF EFL lessons employ explicit and implicit feedback techniques to foster the learners' acquisition of the target linguistic forms and patterns (Mohamed, 2006; Ellis, 2009; Asadollahfam, Kuhi, Salimi & Mirzaei, 2012; Ellis, 2015; Bandar & Gorjian, 2017; Mohamed, Karboush & Abou-Shosha, 2022).

As for Long's (1996) Interaction Hypothesis, it focuses on the role of interactional exchanges in negotiating meaning and facilitating SLA. According to this hypothesis, L2 learning is facilitated through the connections that are established between the provided input, students' information processing capacities and the output they produce in response to the received input (Alcón, 2007; Luan & Sappathy, 2011; Al-Khateeb, 2014; Zhao, 2021, Liu, 2022). Thus, at the implementation level, EFL FonF lessons make use of interaction enhancement as one of its techniques to acquire target linguistic items and structures (Muranoi, 2000; Mohamed, 2006; Li, 2012; Dobakht & Khorrrami, 2020; Mohamed, Karboush & Abou-Shosha, 2022).

2.2 FonF lessons classifications

FonF lessons implementation can vary to be either incidental or intentional on the one hand and reactive or proactive/preemptive on the other hand (Ollerhead & Oosthuizen, 2005; Mackey, 2006; Alcón, 2007; Baleghizadeh, 2010; Asadollahfam, Kuhi, Salimi, & Mirzaei, 2012; Shamsudin & Karim, 2013; Ellis, 2015; Bandar & Gorjian, 2017). Additionally, FonF can be applied in an isolated or integrated way (Spada & Lightbown, 2008; Spada, Jessop, Tomita, Suzuki & Valeo, 2014; Kellem & Halvorsen, 2018; Xu & Li, 2022). Besides, FonF instruction can be either teacher- or learner-initiated (Alcón, 2007; Shamsudin & Karim, 2013; Keh, 2019).

To clarify, FonF application is intentional if the lesson is pre-planned to draw EFL learners' attention to specific linguistic forms or patterns that are important or problematic. However, it is incidental if the focus is on specific linguistic errors as they are naturally made by EFL learners while producing the target language (Ollerhead & Oosthuizen, 2005; Mackey, 2006; Alcón, 2007; Asadollahfam, Kuhi, Salimi & Mirzaei, 2012; Shamsudin & Karim, 2013; Ellis, 2015; Bandar & Gorjian, 2017).
Planned FonF EFL lessons are characterized by (a) the pre-selection of linguistic goals as intended learning outcomes (ILOs) based on students' needs analysis, actual errors or perceived area of difficulty, (b) raising EFL learners' consciousness of the target linguistic forms through intensive exposure in written and/or spoken texts and (c) intentional practice of the specified forms in communicative contexts where conveying meaningful messages is a primary aspect (Ellis, 2015).

It is important to note that pre-planned FonF lessons involve the use of communicative tasks that are done by EFL students to enhance the acquisition of pre-selected linguistic forms and patterns (Alcón, 2007; Shamsudin & Karim, 2013; Bandar & Gorjian, 2017). On the other hand, incidental FonF lessons encourage the learners to use the language to convey meaning without prior focus on a specific linguistic form or pattern; consequently, the form-focused instruction takes place only when the need arises for that (Alcón, 2007; Ellis, 2015; Keh, 2019).

As for reactive FonF activities, they encompass negotiation and are usually triggered by a problematic area or an error in the EFL learners' speech or writing. Conversely, preemptive (or proactive) FonF activities draw learners' attention to a certain linguistic form that represents a gap in their L2 knowledge although no real problem has been identified in the EFL learner's performance (Alcón, 2007; Baleghizadeh, 2010; Marzban & Mokhbari, 2012; Ellis, 2015; Bandar & Gorjian, 2017; Kamiya, 2018; Adloo & Rohani, 2019; Shabani & Hosseinzadeh, 2021).

Moving to isolated and integrated FonF lessons, they both stress the delivery of meaningful messages; however, they differ in the way they draw EFL learners' attention to target linguistic forms. Thus, in isolated FonF lessons, students focus on the specified linguistic forms either before or after they do the communicative activities (Spada & Lightbown, 2008; Elgün-Gündüz, Akcan & Bayyurt, 2012; Kellem & Halvorsen, 2018; Abdulaziz, 2019; Zamani, Youhanaee & Barati, 2019; Karami & Bowles, 2020; Kemaloglu-Er, 2021; Xu & Li, 2022). On the contrary, integrated FonF lessons draw EFL learners' attention to target linguistic forms or patterns while doing communicative tasks (Spada & Lightbown, 2008; Elgün-Gündüz, Akcan & Bayyurt, 2012; Spada, Jessop, Tomita, Suzuki & Valeo, 2014; Kellem & Halvorsen, 2018; Abdulaziz, 2019; Karami & Bowles, 2020; Kemaloglu-Er, 2021; Xu & Li, 2022).

Overall, FonF lessons are interactional in nature, and they take place in meaning-centered discourses (Ellis, 2015). Hence, the focus on linguistic patterns occurs for the purpose of promoting the students' linguistic proficiency levels in authentic communicative settings (Guci, Rochsantiningsih & Sumardi, 2021). Therefore, in FonF lessons, students should be given sufficient opportunities to examine positive as well as negative (erroneous) evidence of the target linguistic forms and patterns to facilitate their L2 acquisition (Asadollahfam, Kuhi, Salimi & Mirzaei, 2012; Bandar & Gorjian, 2017).
Implicit FonF techniques

Before pinpointing the fact that FonF instruction can combine both explicit and implicit teaching techniques, it was viewed as "the incidental attention that teachers and learners pay to form in the context of meaning focused instruction" (Marzaban & Mokhberi, 2012, p5340). Therefore, FonF varied implicit instructional techniques include IE, IF, interaction enhancement, output enhancement, focused communicative tasks and implicit CF strategies (Yu, 2013; Ellis, 2015; Szudarski & Carter, 2016; Bandar & Gorjian, 2017; Fazlali & Shahini, 2019; Dobakhti & Khorrami, 2020; Mohamed, Karboush & Abou-Shosha, 2022).

Starting with IE, it refers to the intentional focus on certain linguistic items (such as new vocabulary or specific grammatical structures) in order to help EFL learners notice these linguistic items, transform the input into intake and promote their linguistic competence (Nassaji & Fotos, 2004; Chiang, 2012; Al-Jamal, 2014; Asadi-Amirabadi, Biria & Sedaghat, 2014; Szudarski & Carter, 2016; Mall-Amiri, Oghyanous & Zohrehvand, 2017; Saadi & Saeidi, 2018; El-Garawany, 2019; Fazlali & Shahini, 2019; Mohammadi & Amjadiparvar, 2022). Moreover, IE can be either visual or auditory.

Visual input enhancement (VIE) is also described as typographical or textual enhancement, and it refers to highlighting the specified linguistic features in a text using boldfacing, underlining, italicizing, capitalization as well as a different font type, color or size (Chiang, 2012; Al-Jamal, 2014; Mirzapour, 2016; Afraz & Ebrahimi, 2017; Mall-Amiri, Oghyanous & Zohrehvand, 2017; Zanjan, 2017; Saadi & Saeidi, 2018; El-Garawany, 2019; Fazlali & Shahini, 2019; Ajabshir, 2022; Mohammadi & Amjadiparvar, 2022; Cho & Song, 2023; Marashi & Rezaei, 2023). On the other hand, auditory/aural input enhancement (AIE) refers to highlighting the linguistic features at hand by placing extra stress on them, using rising intonation and repeating them (Cho & Reinders, 2013; Mall-Amiri, Oghyanous & Zohrehvand, 2017; Zanjan, 2017; Javadi & Shehni, 2020). Both types of IE aim at making the target linguistic features stand out to attract EFL learners' attention and facilitate their acquisition.

As for IF, it refers to the practice of frequently exposing EFL learners to the target linguistic forms in written or spoken texts in order to increase their noticeability and subsequently enhance their acquisition (Nassaji & Fotos, 2004; Asadi-Amirabadi, Biria & Sedaghat, 2014; Mirzapour, 2016; Szudarski & Carter, 2016; Afraz & Ebrahimi, 2017; Rashtchi & Yousefi, 2017; Safdari, 2019; Ajabshir, 2022; Mohamed, Karboush & Abou-Shosha, 2022). It is important to note that Asadi-Amirabadi, Biria and Sedaghat (2014) advocate integrating IE and IF in EFL classes as it led to Iranian intermediate level EFL learners' acquisition and retrieval of conditionals. Based on their study results, Zarei, Esfandiari and Ne'man (2016) recommended integrating VIE, semantic enhancement and IF to enhance lexical collocations comprehension and production among EFL adult learners. On their part, Afraz and Ebrahimi (2017) found that IF and VIE were equally effective in promoting Iranian adult EFL learners' acquisition of causative forms. Also, Mustafa (2020) proved that combining IE and IF resulted in Egyptian first year prep stage students' acquisition of grammatical structures.
Interaction enhancement refers to the role of communication and negotiation of meaning (taking place either between EFL learners and native speakers or between EFL learners and their instructors) in helping these learners notice and naturally acquire target linguistic forms (Muranoi, 2000; Mohamed, 2006; Farrokhi & Talabari, 2011; Li, 2012; Dobakhti & Khorrami, 2020; Mohamed, Karboush & Abou-Shosha, 2022). This might be due to the fact that effective interaction involves confirmation and comprehension checking, requests for clarifications, elaboration and restating ideas (Maharsi, 2011; Brown, 2014; Mohamed, Karboush & Abou-Shosha, 2022). Therefore, Luan and Sappathy (2011) proved that negotiated interaction fostered EFL vocabulary acquisition and recall.

Output enhancement refers to the varied meaningful and communicative drills as well as the CF techniques employed to modify and fine-tune EFL learners' production, thus making it more accurate, fluent and native-like (Mohamed, 2006; Farrokhi & Talabari, 2011; Alqahtani, 2019). In meaningful drills, EFL learners are required to process the meaning of given written or spoken texts without producing their own ideas whereas communicative drills place more cognitive load on EFL learners as they necessitate expressing their own points of views, ideas and emotions. Thus, while meaningful drills establish EFL learners' declarative knowledge of target linguistic forms, communicative drills result in procedural knowledge, automaticity and mastery of the target linguistic items (Mohamed, 2006; Khodamoradi & Khaki, 2012; Alqahtani, 2019).

On their turn, focused communicative drills include storytelling, describing pictures, role playing, conversations, oral presentations, debates and varied writing activities that are carried out to anchor target linguistic forms in EFL learners' minds while delivering authentic meaningful messages (Nassaji & Tian, 2010; Büyükkarci, 2010; Khatib & Bagherkazemi, 2011; Teng, 2017; Mohammadi & Ghaemi, 2022; Marashi & Rezaei, 2023). Therefore, Asadollahfam, Kuhi, Salimi and Mirzaei (2012) and Mirzapour (2016) recommend that EFL learners should be engaged in authentic language production tasks in order to enhance their accurate use of varied linguistic forms.

As for CF, it refers to the varied attempts made by EFL instructors to modify their students' erroneous output and make it conform to the rules and patterns of native speakers (Ellis, Loewen & Erlam, 2006; Jimenez, 2006, Sheen, 2007; Ellis, 2009; Asadollahfam, Kuhi, Salimi & Mirzaei, 2012; Rassaei, Moinzadeh & Youhanaee, 2012; Li, 2014; Ellis, 2015; Bandar & Gorjian, 2017; Alqahtani, 2019). Additionally, Asadollahfam, Kuhi, Salimi and Mirzaei (2012) recommended that CF should be interactive in FonF lessons to increase its effectiveness.

Implicit CF involves the techniques of recasts, metalinguistic feedback, repetition, clarification requests and elicitation (Mohamed, 2006; Ellis, 2009; Asadollahfam, Kuhi, Salimi & Mirzaei, 2012; Ellis, 2015; Bandar & Gorjian, 2017; Babanoğlu, Ağçam & Badem, 2018; Xie & Yeung, 2018; Yu, 2022). A recast takes place when EFL instructors reformulate the students' deviant utterances by producing the correct form without directly telling the students that they made a mistake (McDonough & Mackey, 2006; Kamiya, 2015; Abdollahzadeh, 2016; Bandar & Gorjian, 2017; Paraskeva & Agathopoulou, 2022). For instance, when a student erroneously maintains, 'Mr. Jack had to turn up the job offer as the
salary was quite low,*’, the teacher will implicitly correct the deviant use of the PV 'turn up' by saying, 'I got your point. So, Mr. Jack had to turn down (or reject) the job offer as the salary was quite low.'

Metalinguistic feedback includes the EFL teacher's comments and/ or questions to help EFL modify their erroneous utterances without directly providing them with the right form (Mohammadi, 2009; Abdollahzadeh, 2016; Bandar & Gorjian, 2017; Xie & Yeung, 2018; Paraskeva & Agathopoulou, 2022). For example, if a student produces the incorrect utterance, 'In celebrations and wedding ceremonies, we usually dress down.*', the teacher would say, 'Can you identify the error in your utterance? ’ Celebrations and wedding ceremonies are formal occasions, aren’t they?’ Hence, the student will eventually locate the error and realize that he/ she should use 'dress up', not 'dress down'. Thus, while metalinguistic feedback requires EFL learners to repair their incorrect utterances themselves, a recast provides these learners with the correct target forms in case they are unable to modify their utterances (Mohammadi, 2009; Alqahtani, 2019).

Repetition takes place when the teacher repeats the student's deviant utterance placing more stress on the error and using a rising intonation pattern in order to draw the learner's attention to that error. Consequently, the EFL student will be able to correct it himself or herself (Abdollahzadeh, 2016; Bandar & Gorjian, 2017; Babanoğlu, Ağçam & Badem, 2018; Yu, 2022). For instance, if a studentincorrectly states, 'The engine stopped working as we ran out in petrol.*', the teacher would repeat the same utterance placing more stress on the preposition 'in' and using rising intonation to draw the learner's attention to that erroneous use of the preposition 'in' until the student would be able to produce the correct PV 'run out of'.

A clarification request happens when the teacher demonstrates to the student that his/ her wrong utterance or sentence has been misinterpreted and a reformulation is, therefore, needed (Abdollahzadeh, 2016; Bandar & Gorjian, 2017; Babanoğlu, Ağçam & Badem, 2018; Xie & Yeung, 2018; Yu, 2022). For instance, when a student erroneously maintains, 'In order to get a good job, you need to stand up from the crowd.*', the teacher will say, 'I am not sure I correctly got what you mean by 'stand up from the crowd*'. Would you please reformulate your utterance to clarify what you mean?’ On the other hand, in elicitation, the teacher uses hints, prompts and gestures to elicit the correct form from the students (Bandar & Gorjian, 2017; Babanoğlu, Ağçam & Badem, 2018; Xie & Yeung, 2018; Ayouni & El-Sukny, 2022). By so doing, the teacher will help the student correct the erroneous use of 'stand up' in the previous example by saying, ‘You mean to be noticeable and distinguished, don't you? So, is it 'stand up' or 'stand O...'? until the student himself/ herself is able to produce the correct PV ‘stand out’.

2.4 Explicit FonF techniques

FonF techniques can be, also, explicit, and these include dictogloss, explicit instruction via mini-lessons, input processing structured tasks and explicit error correction (Mohamed, 2006; Ellis, 2009; Tajeddin & Jabbarpoor, 2014; Milne, 2017).

Starting with dictogloss, it is a learning strategy that combines reading, listening, note-taking, dictation, collaboration, text reconstruction, group discussion and error
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During the dictogloss preparation phase, the EFL teacher introduces the topic and pre-teaches essential new vocabulary to ensure learners' comprehension of the text at hand. The next phase is the dictation phase where the text could be either read out loud by the teacher at normal pace or listened to if it is a spoken text. This loud reading or listening practice can take place twice or preferably three times. During the first time, students just listen to the text, and then in the second time, they start to take notes using key words, abbreviations and symbols. During the third listening, students can add more elaboration to their notes. The following phase is the text reconstruction phase where the students work in small groups and try to reconstruct a version of the text using their notes. The final state is the analysis and error correction phase where the students compare their version of the text to the versions written by the other groups as well as the original texts. Based on this comparison, they locate similarities and differences, identify their errors and correct these errors (Vasiljevic, 2010; Tajeddin & Jabbarpoor, 2014; Lindstromberg, Eyckmans & Connabeer, 2016; Puspita, 2016; Alsibai, 2017; Mazri, 2017; Milne, 2017; Mayhoub, Ali & Mohamed, 2023). It is important to highlight that Lindstromberg, Eyckmans and Connabeer (2016) recommend employing dictogloss to enhance EFL learners' knowledge of lexical chunks.

As for mini-lessons, they are short lessons that employ explicit instruction to briefly and directly introduce the target linguistic forms. Thus, instead of boring the students with elaborate explanations of these linguistic items or rules, mini-lessons help both students and teachers focus on essential linguistic patterns using clear simple language (Mohamed, 2006; Ellis, 2015). According to Xu and Li (2022), explicit FonF mini-lessons should take place before involving EFL learners in communicative tasks where they use the target linguistic forms to convey meaningful messages. These mini-lessons can be effectively used to teach grammatical patterns and vocabulary items. Also, EFL educational videos can be an integral part of these mini-lessons as they are usually concise, precise and delivered by expert native speakers.

Moving to input processing activities, these are designed to help EFL learners make form-meaning connections as they try to comprehend the given input and transform it into intake. Thus, through structured input tasks, students are required to show deep understanding of the given sentences or texts, and they are not required to produce output (Hashemnezhad, 2013; Sulistyani & Khoiriyah, 2016). Structured input processing activities are either referential or inferential. While referential activities require EFL students to choose the right answer from given options, there are no right or wrong answers for inferential activities as they usually ask EFL students to express their points of view (Nassaji & Fotos, 2011; Sulistyani & Khoiriyah, 2016). Examples of referential activities include reading or listening to sentences or texts and choosing the correct pictures or answers from given choices, true or false questions, matching words with their synonyms or definitions, gap filling and reconstruction cloze exercises (Sulistyani & Khoiriyah, 2016; Seyednejad & Gholami, 2017). As for inferential activities, they comprise reading or
listening to certain sentences and deciding whether the EFL learners agree or disagree with these sentences. They, also, include reading or listening to given sentences or utterances and deciding whether the EFL learners carried out the highlighted activities or not (Sulistyani & Khoiriyah, 2016; Seyednejad & Gholami, 2017).

Regarding explicit CF, it is carried out by EFL instructors to highlight to EFL learners that a certain linguistic form is wrong and to clarify the correct appropriate form to be used instead (Ellis, 2009; Ellis, 2015; Abdollahzadeh, 2016; Bandar & Gorjian, 2017; Xie & Yeung, 2018; Yu, 2022). For example, if a student states, 'They put out the meeting.*', the teacher will directly correct the error by saying, 'No, this is wrong. We do not 'put out' a meeting. We put out a fire, but we 'put off' (or postpone) a meeting.'

2.5 Advantages of FonF implementation in ESL/EFL classrooms

There are several advantages of adopting FonF in EFL classes. These include (a) tailoring instruction according to EFL learners' needs, (b) striking the balance between both form and meaning, (c) enabling EFL teachers to develop their students' communicative skills while establishing their knowledge of target linguistic forms and (d) promoting both fluency and accuracy (Ellis, 2015; Kellem & Halvorsen, 2018). Furthermore, FonF techniques application was found effective in promoting varied language skills in different settings.

Starting with grammar, FonF instruction was found effective in fostering grammar skills among Iranian English majors in Saeidi's and Chong's (2003) study. Also, in Mohamed's (2006) study, training Egyptian EFL secondary stage teachers in implementing FonF strategies was found effective in enhancing their students' grammatical sub-skills. Also, the study conducted by Bernet, Kelly, Aldersley, Schmitz, Khalsa, Panara and Keenan in 2007 in the USA proved that the two FonF strategies of textual enhancement and visual dictogloss fostered ESL deaf college students' grammar acquisition.

Othman and Ismail (2008), also, found that FonF application fostered secondary stage Malaysian EFL students’ acquisition of the past simple and past perfect tenses. Al-Jamal (2014) proved that using pictures as VIE in dictogloss tasks remarkably promoted Saudi female English majors' grammatical awareness and satisfaction levels. Also, Tajeddin and Jabbarpoor (2014) found that collaborative dictogloss tasks significantly developed Iranian English freshmen's acquisition of inversion structures as compared to individual dictogloss tasks. Besides, Beniss and Bazzaz (2014) concluded that pushed output (PO) that required Iranian EFL upper intermediate adults to reformulate their utterances through clarifications requests enhanced their accurate use of linguistic forms.

Alsibai (2017) found that implementing dictogloss collaborative tasks in the grammar classes of Saudi female English majors fostered their satisfaction levels. Additionally, Bandar and Gorjian (2017) proved that combining FonF and focus on meaning strategies enhanced Iranian EFL senior high school male students' acquisition of Wh-questions. In Spain, Fuentes (2017) found that integrating FonF instruction with DDL fostered EFL business administration and tourism majors' acquisition of grammar.

Saadi and Saeidi (2018), also, found that typographical IE and the output task of producing sentences fostered Iranian EFL intermediate level adult male learners' acquisition
of conditional sentences, the passive voice and the past perfect tense. Afterwards, Xu and Li (2022) proved in China that explicit FonF instruction should take place before involving EFL middle school students in communicative tasks to achieve better grammar acquisition gains. Besides, Cho and Song (2023) proved that VIE fostered Korean EFL undergraduates' grammar learning. Furthermore, Mayhoub, Ali and Mohamed (2023) proved that implementing the dictogloss strategy promoted EFL grammatical competence and motivation among Egyptian first year secondary stage students. Based on exploring EFL teachers' perceptions and practices, Li and Xu (2023) found that FonF is generally viewed as a promising instructional approach that could enhance Chinese EFL secondary stage learners' acquisition of varied linguistic forms and grammatical patterns.

Moving to vocabulary, Alcón (2007) found that teacher initiated proactive FonF activities fostered Spanish EFL teenagers' noticing and learning of target vocabulary items. Furthermore, Chiang (2012) proved that combining VIE and processing strategies enhanced Chinese non-English majors' acquisition of PVs. Moreover, Saeidi, Zaferanieh and Shatery (2012) proved that Iranian EFL engineering majors who were taught new vocabulary through dictogloss outperformed their counterparts who were taught the same vocabulary items whether in discussions or through word lists.

Badri-Ahmadi and Panahandeh (2016) found that the output tasks (where Iranian EFL adult learners were asked to use the acquired PVs in given situations) significantly fostered their PVs acquisition more than input-based tasks did. However, they pinpointed the role of input-based FonF tasks in raising EFL adult learners' consciousness of PVs. Additionally, Mall-Amiri, Oghyanous and Zohrehvand (2017) proved that VIE and AIE equally promoted Iranian EFL intermediate level adults' knowledge of PVs. Besides, Aghajani, Naraghi-zadeh and Beiglou (2017) found that FonF techniques implementation fostered EFL collocations acquisition. Similarly, Teng (2018) proved the positive impact of form-focused instruction on PVs acquisition among EFL Chinese undergraduates.

When combined with the use of online corpora, IE was found effective in fostering Egyptian undergraduates' collocations acquisition in El-Garawany's (2019) study. Besides, Fazlali and Shahini (2019) proved that typographical IE fostered Iranian senior high school students' knowledge of lexical collocations. On their part, Javadi and Shehni (2020) proved that AIE through WhatsApp voice messages fostered Iranian EFL intermediate level female learners' vocabulary acquisition and recall. Additionally, Yu (2020) proved that dictogloss promoted Chinese EFL non-English majors' productive knowledge of multi-word items. Moreover, Mohammadi and Ghaemi (2022) found that combining IE and output tasks was the most influential strategy to foster PVs acquisition among Iranian EFL pre-intermediate level adults. Also, Pouresmaeil and Vali (2023) found that incidental FonF instruction fostered Iranian adult EFL upper-intermediate learners' knowledge of grammar, vocabulary and pronunciation.

When it comes to developing EFL writing ability, Rahimpour, Salimi and Farrokhi (2012) found that intensive FonF practice remarkably enhanced Iranian EFL pre-intermediate learners' written accuracy as compared to extensive FonF instruction. Besides, Mazri (2017) proved that collaborative dictogloss strategy fostered Algerian English
sophomores' essay writing and decreased their lexical errors. Therefore, it was concluded that dictogloss implementation created a positive learning atmosphere while maintaining the participants' engagement, motivation and writing ownership.

FonF techniques application had, also, a positive role in enhancing EFL learners' speaking accuracy, listening skills, and reading comprehension. To clarify, Beniss and Bazzaz (2014) proved that pushing Iranian EFL upper intermediate adults to produce output through describing given pictures, retelling written texts and audio recordings, storytelling as well as asking and answering questions fostered their speaking accuracy. In a two-cycle action research, Puspita (2016) found that dictogloss implementation fostered EFL listening skills among English majors. Additionally, Puspita (2016) discovered that implementing dictogloss in English majors' listening classes made the classroom atmosphere more alive, interesting and engaging. Later, Mohammadi and Amjadiparvar (2022) found that typographical IE of collocations in given texts fostered Iranian EFL intermediate level adult female field-dependent learners' reading comprehension.

3 Gamified learning (GL)

3.1 Definitions and advantages

The term 'gamification' was first introduced in 2002 by Nick Pelling, but it gained its popularity starting from 2010 onwards (Jie, Zakaria & Hassan, 2023). It refers to the "process of making [learning] activities more game-like" (Werbach, 2014, p. 266). To elaborate, it is a recent innovative instructional approach that uses technology, handheld devices and a stable internet connection to create a dynamic learning atmosphere where students collaborate and practise active experiential learning (Hernández-Prados, Belmonte & Manzanares-Ruiz, 2021).

GL incorporates game design features in educational settings to create a fun and stress-free learning experience (Arnold, 2014). By so doing, it paves the way to EFL students' linguistic development, achievement of ILOs, engagement, motivation, self-directed learning, confidence, satisfaction, participation, peer collaboration, interaction and autonomy (Kapp, 2012; Werbach, 2014; Werbach & Hunter, 2015; Majdoub, 2021; Thurairasu, 2022; Panmei & Waluyo, 2023).

Empirical evidence proved that GL can bring about several positive outcomes in ESL/ EFL classrooms. For example, GL promoted ESL/ EFL learners' grammar acquisition, positive attitudes and engagement in varied contexts. To clarify, Hashim, Rafiq and Yunus (2019) found that the three GL tools of Kahoot, Socrative and PowerPoint Challenge Game fostered Malaysian ESL secondary stage students' grammar skills. Also, Rafiq, Hashim, Yunus and Pazilah (2019) found that Malaysian EFL secondary stage students favoured GL implementation in grammar classes as it motivated them and fostered their understanding of English grammar.

In a qualitative case study, Ardi and Rianita (2022) proved that Kahoot GL platform use boosted Indonesian English sophomores' engagement in grammar classes in six different ways. These were helping EFL learners (a) set learning goals, (b) focus more on the tasks at hand, (c) increase their motivation and interest levels, (d) go through playful learning
experiences, (e) collaborate with their peers as well as (f) satisfy their need for reward and competitive learning opportunities. Therefore, the incorporation of GL in EFL grammar classes was advocated.

Moving to vocabulary, the use of Quizlet GL platform increased EFL Japanese undergraduates' academic vocabulary gains in Dizon's (2016) study. Additionally, Kijpoonphol and Phumchanin (2018) proved that gamification enhanced EFL tenth graders' comprehension and recall of PVs. In Finland, Saari and Varjonen (2021) found that using Kahoot and Gimkit enhanced EFL first year secondary stage students' vocabulary learning and motivation levels. Therefore, they concluded that digital games were useful means of boosting EFL learners' vocabulary learning.

On their part, Waluyo and Bucol (2021) proved that Quizlet use fostered Thai EFL low proficiency non-English majors' vocabulary learning. Therefore, they advocated GL integration into vocabulary instruction. Also, Katemba, Tobing and Putri (2022) found that Kahoot activities fostered Indonesian EFL seventh graders' vocabulary learning. Besides, Salimi and Zangeneh (2022) proved that GL enhanced Iranian EFL fifth graders' vocabulary. Through questionnaires and interviews, Pham (2022a) found that EFL Vietnamese undergraduates had positive views of using Quizlet platform to acquire vocabulary. Therefore, he suggested upgrading some of its features to increase its effectiveness.

Based on the positive vocabulary gains of GL in varied contexts, Panmei and Waluyo (2023) recommended using its varied platforms and applications including Kahoot, Quizlet, Quizizz and Socrative to promote EFL undergraduates' vocabulary acquisition while making language learning fun and enjoyable. In addition, GL increased ESL/EFL learners' motivation, involvement and participation in varied contexts. Thus, using 'Hot Potato' gamification platform fostered Ecuadorian university students' motivation and EFL learning in the study conducted by Amaya-Díaz and Bajaña-Zajia (2020). This improvement was attributed to the interactive, dynamic and entertaining nature of the 'Hot Potato' platform in addition to the gamification elements of leaderboards, levels, badges, avatars and rewarding system. Likewise, Yaccob et al. (2022) proved that GL fostered ESL learners' motivation, participation and sense of competition.

On her part, El-Sakka (2020) proved the positive impact of Socrative student response system (SRS) assessment on developing Egyptian third year English majors' reading comprehension and engagement. Besides, Jie, Zakaria and Hassan (2023) proved that gamification fostered Malaysian ESL secondary stage students' involvement and participation in speaking classes. Therefore, they recommended applying GL to promote EFL students' acquisition of the four main language skills, grammar and vocabulary.

3.2 GL elements

GL elements can be divided into two categories. These are game mechanics and dynamics (Werbach & Hunter, 2015; Dehghanzadeh & Dehghanzadeh, 2020). Game mechanics refer to the main features, processes and actions integrated into the learning activity to make it fun, engaging and enjoyable. As for game dynamics, these are the GL
underlying forces that trigger the learners' positive emotions to play the game. Game mechanics include badges, levels, leaderboards, storytelling, avatars, challenges, virtual goods, points, rules, unlocking content, timers and cards whereas game dynamics comprise satisfaction, reward, achievement, self-expression, fun, altruism and competition (Cheong, Filippou, & Cheong, 2014; Werbach & Hunter, 2015).

While game mechanics motivate learners to participate in the activity, game dynamics satisfy their desires. Overall, both game mechanics and dynamics contribute to making the EFL learning experience fun and engaging. They, also, enhance learners' curiosity and interest level in EFL learning (Hernández-Prados, Belmonte & Manzanares-Ruiz, 2021; Sadeghi, Sağlık, Mede, Samur & Comert, 2022; Jie, Zakaria & Hassan, 2023).

3.3 Quizizz use in EFL classrooms

As highlighted earlier, Quizizz is an interactive GL platform that can be used to promote EFL acquisition among school and university students. Therefore, varied studies were conducted using Quizizz GL platform to enhance EFL learning and assessment. Among them, Rahayu and Purnawarman (2019) proved that Quizizz can be used effectively as a formative self-assessment tool to help Indonesian EFL senior high school students develop their grammar skills. This was attributed to fact that it helped these learners identify their strengths and weaknesses, receive direct feedback and replay the grammar tests until they attained the goal of EFL grammar mastery. Likewise, Mansur and Fadhilawati (2021) proved the positive impact of using Quizizz platform on fostering Indonesian EFL senior high school students' achievement of conditional sentences. Therefore, they recommended using this GL platform to develop EFL grammar skills inside and outside classrooms. They, also, recommended using this platform to create an enjoyable learning experience and promote other EFL skills. At the university level, Pham (2023) proved that Quizizz platform use enhanced Vietnamese EFL English freshmen's grammatical achievement. Therefore, it was recommended to maximize the benefits of GL platforms by integrating them with carefully selected instructional materials.

Varied studies, also, proved the effectiveness of Quizizz use in fostering EFL vocabulary acquisition and retention. For instance, Bal (2018) found that Quizizz use enhanced Turkish EFL pre-intermediate level engineering undergraduates' vocabulary knowledge. Also, Katemba and Sinuhaji (2021) integrated Quizizz platform use and the Engage, Study, Activate (ESA) teaching method, and they found their treatment effective in developing EFL junior high school students' vocabulary knowledge. Therefore, Quizizz use was advocated for EFL vocabulary development from primary to university education (Katemba & Sinuhaji, 2021). Furthermore, Nabila, Muliati and Talib (2023) proved the effectiveness of Quizizz platform use in fostering Indonesian EFL seventh' graders' vocabulary mastery. Similarly, through administering questionnaires on Indonesian EFL learners, Nugraheni and Fakhurriana (2023) found that Quizizz use boosted their vocabulary development. This was attributed to the fact that it offered EFL students chances for (a) personalized self-paced learning experience, (b) tracking progress, (c) immediate feedback, (d) communication, (e) collaborative learning, (f) competition and (g) repeated practice to increase vocabulary comprehension and retrieval.
Based on the proven positive role of Quizizz use in promoting EFL vocabulary learning, Na’imah (2022) recommends using Quizizz to teach EFL vocabulary as it makes language learning interesting and exciting. Additionally, she states that Quizizz implementation in EFL classes makes the target language teaching more effective and enables instructors to use class time in productive activities.

Several studies have, also, found that Quizizz use in EFL classes increases students' interest, achievement, positive attitudes and satisfaction levels. Thus, Fadillah and Maryanti (2021) found that Quizizz use fostered Indonesian EFL ninth graders' interest in learning English and made their language learning fun and interactive. Likewise, Pratama (2021) proved that Quizizz use improved Indonesian EFL fourth graders' interest in language learning and increased their linguistic achievement. Additionally, Pham (2022b) proved that Quizizz use in EFL Vietnamese undergraduates’ classes led to positive attitudes and increased their satisfaction levels.

**Related studies**

*These were divided into the following three areas:*

**a. Studies promoting PVs acquisition among adult ESL/EFL learners**

Büyükkarci (2010) investigated the effect of implementing the Communicative Approach activities on Turkish English freshmen's PVs knowledge. Participants were randomly divided into a control group and an experimental group of twenty-seven students each. The study instrument was a pre-/post PVs knowledge test. Throughout the four-week intervention, the experimental group was taught PVs through discussions, role plays, simulations, games and conversations. The control group received traditional instruction that focused on gap-filling and explaining PVs meanings. Posttest results proved that the experimental group significantly surpassed the control group, thus providing evidence for the effectiveness of the Communicative Approach in promoting PVs knowledge among adult EFL learners.

Ganji (2011) compared the effect of translation, contextualization and particles metaphorical meaning exploration on fostering PVs acquisition and retention among Iranian EFL male engineering majors. Participants were randomly assigned into a control group and two experimental groups of fifteen students each. The control group studied PVs according to the conventional method. The first experimental group was taught the same PVs as they were contextualized in given sentences. The second experimental group was taught the target PVs through discussing the metaphorical meanings of particles. Tools included an immediate posttest, a delayed posttest of the taught PVs and another posttest where participants were asked to predict the meanings of twenty untaught PVs. Results proved that there were no significant differences between the three groups on the immediate posttest. However, there were significant differences between the three groups on the delayed posttest in favour of the two experimental groups.

White (2012) investigated the impact of adopting the Conceptual Approach steps on promoting ESL learners' comprehension of PVs in an American university. Participants were thirty non-English majors attending an academic English course. Throughout the treatment, participants were taught to explore the meanings of PVs as they collected
samples of contextualized PVs from magazines and newspapers articles, internet pages as well as textbooks. Then, they discussed the meanings of the target PVs, drew these meanings and shared their drawings. Tools were a pre-test, a posttest and a questionnaire. Results revealed an increased ability to comprehend PVs among the participants; however, this increase was modest. Questionnaire results proved that the implemented approach enabled the participants to better comprehend PVs meanings while making PVs learning fun and interesting.

Nosratinia, Amini and Sarabchian (2013) compared the role of concept mapping and lexical inferencing strategies in promoting Iranian English majors' retrieval of PVs. Participants were randomly divided into two experimental groups of thirty students each. The first experimental group studied PVs through constructing concept maps while the second experimental group studied the same PVs through making informed guesses about their meanings in given reading comprehension texts. Tools were an English language proficiency test, a pre-test measuring the participants' knowledge of PVs and a posttest assessing the participants' recall of PVs. Results proved that both strategies were equally effective in fostering the participants' retention of PVs. Therefore, it was recommended that both concept mapping and making inferences should be adopted to promote adult EFL learners' acquisition and retrieval of PVs.

Mohammadi and Mirdehghan (2014) compared the impact of blended learning versus traditional teaching on promoting PVs acquisition among Iranian EFL pre-intermediate senior high school students. Participants were randomly assigned into an experimental group of sixteen students and a control group of twenty-four students. The experimental group learned PVs through blending face-to-face and online instruction over a semester. The control group received conventional instruction of the same PVs. Tools included a placement test, an inventory of information technology and a PV posttest. Posttest results revealed the experimental group's remarkable growth in PVs learning as compared to the control group. Hence, it was concluded that blended learning enhanced the experimental group's PVs acquisition.

Sarab and Kardoust (2014) examined the effect of paper-based data-driven learning (DDL) and dictionary use on Iranian male English majors' PVs comprehension. Participants were randomly assigned into two groups of seventeen students each. The first group studied the target English PVs through paper-based DDL activities. Thus, they were asked to use the printed concordance lines to guess the meanings of PVs, and then they answered matching, true or false and completion exercises. The second group studied the specified PVs as they read their dictionary definitions and the given example sentences. Instruments were a pre-test, an immediate posttest and a delayed posttest measuring the participants' comprehension of the specified PVs. Results of the immediate and delayed posttest proved that the DDL paper-based group significantly outperformed the dictionary use group in PVs comprehension. Hence, recommendations were made to employ concordance lines and DDL activities to enhance EFL learners' PVs acquisition.

Khodareza (2016) compared the effect of group tasks versus individual tasks on Iranian intermediate level TEFL majors' PVs learning. Participants were randomly assigned into two groups of thirty students each. The first group learned English PVs as the students
did jigsaw tasks, cue cards exercises and rotating circles activities that necessitated their sharing of ideas and negotiation of meaning. The second group learned the same PVs in individual tasks requiring the students to fill in the gaps, listen and do certain actions as well as use pictorial cues to learn PVs. Instruments were an EFL competence test and a PVs pre-test/posttest. Posttest findings proved that collaborative tasks had tangible impact on PVs learning as compared to individual tasks. Recommendations were made to involve EFL learners in group tasks where clarification requests, confirmation checks and reciprocal learning were key features to enhance PVs learning.

Qorbanian, Safaie-Qalati and Amini (2016) investigated the effect of conceptual metaphors awareness on Iranian English majors' PVs comprehension. Participants were randomly divided into a control group and an experimental group of fifteen students each. The study focused on thirty PVs that were taught to participants in five sessions so that each session focused on six PVs only. The control group studied the target PVs according to the conventional method. Following cognitive linguistics principles, the experimental group was taught the same PVs by highlighting their figurative meanings resulting from particles use. Tools included a pre-test and a delayed posttest. Posttest results showed that the experimental group significantly surpassed the control group, thus proving the effectiveness of metaphorical meanings awareness in enhancing EFL learners' PVs comprehension.

Spring (2018) compared the effect of the conflation method versus the whole-unit method on PVs acquisition among Japanese EFL undergraduates. Participants were randomly assigned into two groups. The conflation method group comprised thirty-nine students, and they were taught PVs using a concise and comprehensive particles list that highlighted nearly 95% of the common English PVs. The whole unit method comprised thirty-six students, and they learned the most common PVs as lexical chunks. Tools were pre-/posttests measuring the participants' knowledge of PVs after each lesson and a questionnaire. Posttests results revealed that the conflation method students outperformed the whole-unit method students, thus proving the positive impact of focusing on particles and their meanings on PVs knowledge. Moreover, the questionnaire results showed that the conflation method group had favourable views of learning PVs through focusing on particles meanings.

Kim (2019) examined the effect of combining images and video clips with written texts on EFL South Korean college students' learning of single words and PVs. Participants were randomly assigned into two groups of fifty-two students each. The study focused on twenty single words and ten PVs. The first group studied the specified thirty vocabulary items through integrating texts and definitions with images. The second group studied the same lexical items through integrating texts, definitions and video clips. Tools were an EFL proficiency test, a pre-test, an immediate posttest, a delayed posttest and an online survey. Immediate posttest results proved that integrating images with texts significantly fostered single words learning as compared to combining video clips with texts. However, combining texts with video clips was more influential for PVs recall as indicated by the delayed posttest results. Survey results demonstrated that using images helped the participants create useful associations with the new vocabulary items while video clips enhanced their motivation to learn vocabulary for real life communication.
Vazirabad and Farrokhi (2021) explored the influence of a mobile game-based application on PVs learning among Iranian EFL intermediate level learners. Participants were divided into two treatment groups. The first treatment group comprised fifty-one students; they were taught PVs over six formal instruction sessions where they played a mobile digital game to foster their PVs learning and comprehension. The second treatment group comprised fifty students who learned the same PVs as they played the digital game autonomously and informally outside classrooms. Tools were a pre-/posttest measuring PVs knowledge and a questionnaire. Posttest results revealed that the first treatment group outperformed the second treatment group, thus proving that playing digital games in formal instructional settings enhanced PVs learning and comprehension. Questionnaire results, also, indicated the students' preference of formal contexts to learn PVs.

Beikian and Esmailnia (2023) investigated the impact of data-driven learning (DDL) on minimizing Iranian adult EFL learners' PVs errors in paragraph writing. Participants were randomly assigned into a control group and an experimental group of fifteen students each. The intervention focused on thirty PVs that were divided into six sets of five PVs each. The experimental group followed DDL activities using the Wikipedia Corpus and its concordance lines. The control group was taught the same PVs using explicit instruction. Tools included a proficiency test and a pre-/posttest that required the students to write six paragraphs using the given PVs sets. Posttest results showed the experimental group's tangible accuracy while using PVs in paragraph writing as compared to the control group. Therefore, it was concluded that DDL activities were effective in decreasing EFL learners' PVs errors in writing.

In an action research, Ton, Tran and Dang (2023) explored the influence of integrating incidental learning, consciousness-raising and purposeful learning on Vietnamese non-English majors' PVs knowledge and recall. This action research went through the four cycles of planning, acting, observing and reflecting. Participants were thirty-one pre-intermediate EFL learners who were enrolled in a general English course. The intervention lasted for eleven weeks, and tools included a pre-test, an immediate posttest and a delayed posttest. Results revealed the positive effect of the intervention on the participants' PVs knowledge and retrieval.

b. Studies employing FonF techniques to enhance lexical items acquisition among adult ESL/EFL learners

Nassaji and Tian (2010) explored the role of collaborative and individual FonF output tasks in fostering PVs knowledge among ESL low-intermediate university students in Canada. Participants belonged to two classes that comprised twenty-six students. Participants practised gap-filling and error correction tasks in collaborative pairs and individually. Data were collected through a pre-/post vocabulary knowledge test (VKT), output tasks completion and an analysis of students' interaction during the assigned output tasks. Posttest results revealed that there was no significant impact of doing the output tasks whether collaboratively or individually on the participants' PVs knowledge. However, it was noted that doing the output tasks collaboratively resulted in more PVs accuracy during class time although this accuracy was not reflected in the posttest results. Additionally, it was
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found that editing tasks resulted in the participants' remarkable PVs gains as compared to the cloze tasks.

Chiang (2012) investigated the effect of applying IE and processing strategies on Chinese non-English majors' PVs acquisition. Participants were randomly assigned into a control group and an experimental group of twenty students each. The control group was taught the target PVs through conventional instruction, memorization and output drills. The experimental group was taught the same PVs through boldfacing them in reading texts, using clarifying pictures, applying processing strategies and doing structured input activities. The study tool was a PV pre-/posttest. Posttest results proved that the experimental group significantly surpassed the control group. Hence, it was recommended to help adult EFL learners notice PVs through typographical and pictorial enhancement as well as through structured input tasks.

Birjandi, Alavi and Najafi-Karimi (2015) investigated the influence of unenhanced, enhanced and elaborated input on Iranian intermediate level English sophomores' PVs learning. Participants were randomly divided into three groups of thirty-five students each. Tools were a proficiency test, a pre-test and posttests. The study focused on thirty PVs that were presented in six reading texts so that each text contained five only of the target PVs. The unenhanced input group read the selected texts and answered the PVs posttests after reading each text. The enhanced input group students were asked to read the texts where the specified PVs were typographically enhanced by boldfacing them. The elaborated input group read the same texts where the target PVs were elaborated by highlighting their definitions and synonyms. Posttests results revealed that the elaborated input group outperformed both the unenhanced and enhanced input groups. Therefore, it was concluded that lexical elaboration is more effective than typographical enhancement in fostering PVs acquisition.

Zarei, Esfandiari and Ne'man (2016) compared the impact of VIE, semantic IE and IF on lexical collocations comprehension and production among Iranian EFL intermediate level adult learners. Participants were randomly assigned into three experimental groups and one control group. The first experimental group (N= 21) was taught lexical collocations as they were visually enhanced in given texts. The second experimental group (N= 19) was taught the same collocations as they were semantically enhanced by adding their Persian equivalents in the assigned texts. The third experimental group (N= 19) followed the IF technique where the specified collocations were repeated frequently in the given texts. The control group (N= 21) was taught the same collocations in the assigned texts without employing any IE or IF technique. Tools included an EFL proficiency test, a collocations comprehension posttest and a collocations production posttest. Posttests results revealed that there were no significant differences between the four groups whether in lexical collocations comprehension or production. Therefore, it was suggested that combining VIE, semantic IE and IF might yield better results.

Mall-Amiri, Oghyanous and Zohrehvand (2017) compared the effect of VIE versus AIE on PVs knowledge among Iranian EFL intermediate level learners. Participants were randomly assigned into three groups of thirty students each. The first experimental group
were taught the target PVs through VIE. The second experimental group received AIE as the target PVs were emphasized through repetition and rising intonation. The control group studied the target PVs in the same sentences and texts without any form of IE. Additionally, the control group was taught the target PVs as they matched them with their definitions and synonyms. Tools included an EFL proficiency test and a pre-/post PVs knowledge test. Posttest results proved that both experimental groups outperformed the control group, thus proving the positive role of IE in fostering PVs knowledge. Furthermore, it was concluded that VIE and AIE equally promoted EFL students' PVs knowledge.

Teng (2017) explored the effect of group, pair and individual FonF output tasks on Chinese EFL low to intermediate level undergraduates' PVs learning. The output tasks were gap filling, editing and summary writing tasks. Participants were randomly divided into three groups of 24 students each. In the three experimental groups, the output tasks were performed either individually, in pairs or in groups. Tools were PVs pre-tests and delayed posttests. Results revealed that participants who performed the output tasks in groups displayed better PVs knowledge than those who performed the same tasks in pairs. Additionally, participants who did the same tasks in pairs outperformed the students who did them individually. It was, also, revealed that summary writing tasks were the most effective output tasks that fostered participants' PVs knowledge. These were followed by editing tasks and finally came the gap filling tasks. Therefore, it was concluded that FonF output tasks could foster EFL learners' PVs acquisition.

Teng (2018) compared the effect of FonF, Focus on Forms (FonFs) and traditional instruction on PVs acquisition among Chinese tertiary level students. Participants were ninety EFL low level learners who were randomly divided into three groups. The FonF group was taught PVs through presenting them in reading texts and answering comprehension questions. The FonFs group was taught PVs according to the presentation, practice and production lesson plan. The control group received traditional instruction. Tools included three tests that focused on measuring the students' ability to recall PVs form and meaning and well as their ability to use PVs in sentences of their own. Posttest results proved that FonFs group significantly outperformed the FonF group and the control group. Additionally, it was found that meaning was the most acquired aspect of PVs whereas usage was the least acquired aspect, thus proving that productive PVs knowledge is more challenging to obtain than receptive PVs knowledge.

El-Grawany (2019) investigated the role of IE and online corpora in fostering Egyptian undergraduates' collocational competence. Participants were fifty first year hotels and tourism students, and they were randomly divided into a control group and an experimental group of twenty-five students each. The study tool was a pre-/post collocational competence test. The control group received regular instruction whereas the experimental group studied English collocations through VIE and the use of online corpora. Results revealed the experimental group's tangible gains in collocational competence, thus proving the effectiveness of combining textual IE and online corpora use in fostering EFL students' proficient use of collocations.
Fazlali and Shahini (2019) compared the impact of IE, consciousness raising activities and conventional teaching on promoting lexical and grammatical collocational knowledge among Iranian senior high school students. Participants were randomly assigned into two experimental groups and a control group of twenty students each. The first experimental group was taught contextualized collocations in six reading texts following consciousness-raising activities. The second experimental group was taught the same texts where collocations were typographically enhanced. The control group read the specified texts without paying special attention to collocations. Tools were a placement test and a pre-/post collocational knowledge test. Results proved that practising consciousness-raising activities fostered the first experimental group's knowledge of lexical and grammatical collocations. It was, also, found that IE fostered the second experimental group's knowledge of lexical collocations but had no tangible effect on the second experimental group's grammatical collocations knowledge. Additionally, posttest results proved that the consciousness-raising group remarkably surpassed the IE group and the control group.

Yu (2020) investigated the effect of dictogloss, dictation and listening comprehension questions on promoting Chinese EFL non-English majors' productive knowledge of multi-word items. Participants were 142 freshmen who were randomly assigned into three experimental groups. The first experimental group (N= 55) did a dictogloss task; the second experimental group (N= 58) was involved in a dictation activity of the same text, and the third experimental group (N= 24) listened to the text and answered listening comprehension questions. Tools were a vocabulary level test, a pre-test/ posttest and delayed posttest measuring the participants' productive knowledge of formulaic sequences. Results revealed that dictogloss was more effective than dictation in boosting the students' productive knowledge of multi-word items.

Mohammadi and Ghaemi (2022) compared the impact of noticing and output tasks on Iranian EFL pre-intermediate level adult learners' PVs mastery. Participants were randomly assigned into three experimental groups of thirty students each. The first experimental group practised noticing PVs through both VIE and AIE. Then, students in the first experimental group were involved in editing tasks where they were asked to correct errors related to PVs use. The second experimental group was taught the same PVs without any form of IE or consciousness-raising techniques; however, they were asked to use the learnt PVs each session in the output task of paragraph writing. The third experimental group followed a combination of both noticing and output paragraph writing tasks. Tools were an EFL proficiency test, a PVs pre/posttest and an interview. Posttest results revealed that the three groups achieved substantial improvement in their PVs acquisition. However, combining both IE and output tasks was found to be the most effective treatment to foster PVs mastery. Analysis of students' interviews proved that most of them viewed IE and output tasks effective in fostering their PVs knowledge and use.

c. Studies applying GL to promote lexical items acquisition among EFL adult learners

Kijpoonphol and Phumchanin (2018) compared the impact of traditional and gamified teaching methods on Thai EFL tenth graders' PVs acquisition. Participants were randomly assigned into a control group (N= 35) and an experimental group (N= 38). The control group followed the conventional method. The experimental group practised the
specified PVs in GL environment as they were involved in a matching game and a search game. Tools were a pre-/post PVs knowledge test and a questionnaire. Posttest results showed the experimental group's remarkable improvement in PVs knowledge. However, questionnaire results revealed that the control group was more satisfied with their traditional learning experience than the experimental group that followed the GL style.

Vazirabad and Farrokhi (2020) investigated the influence of using both Kahoot platform and Phrasal Nerds mobile application in four different learning modes on fostering PVs knowledge among Iranian EFL intermediate level adult learners. Participants were 174 students who learnt target PVs in four experimental groups. The first group practised PVs in a blended learning mode. In the second group, game play was the chief tutor to learn PVs. In the third group, game play was only a tool which was used independently by the students outside the classrooms to acquire PVs. The fourth group learned the same PVs through game-informed learning activities practised in class. Tools were a pre-/posttest measuring learners' PVs knowledge, a questionnaire, an interview and students' game diaries. Posttest results proved that participants' PVs knowledge substantially improved in the four groups. However, students learning PVs through blended learning outperformed all the three other groups in their PVs knowledge. Moreover, Phrasal Nerds application use led to better PVs knowledge than Kahoot platform activities did. Through qualitative data analysis, it was found that students preferred the use of Phrasal Nerds application as it had a storyline.

Fithriani (2021) investigated the impact of using Quizlet mobile-assisted GL application on Indonesian EFL English freshmen's vocabulary learning. Participants were randomly assigned into an experimental group (N= 36) and a control group (N= 38). The experimental group studied English vocabulary using Quizlet app on their mobile handheld devices while the control group studied the same vocabulary through regular drills. Tools were a vocabulary pre-/posttest and a questionnaire. Posttest findings revealed that the experimental group significantly surpassed the control group, thus supporting the efficacy of GL in vocabulary acquisition. Questionnaire results revealed that practising vocabulary through Quizlet app helped the experimental group students achieve better learning outcomes as well as increased their motivation and enjoyment levels.

Waer (2021) examined the role of GL activities practised on Quizizz, Quizlet and Kahoot platforms in fostering vocabulary learning and positive attitudes among Egyptian first year prospective English teachers. Participants were randomly assigned into an experimental group of thirty-five students and a control group of thirty-three students. Tools were a pre-/post vocabulary test, a questionnaire, interviews and reflective logs. The experimental group practised vocabulary GL activities throughout the intervention whereas the control group studied the same vocabulary using paper-based task sheets. Results indicated the experimental group's significant vocabulary gains as compared to the control group. It was also found that GL increased the experimental group's positive attitudes by making vocabulary learning fun and interesting. Therefore, it was recommended to employ GL activities to enhance EFL learners' lexical competence.

Ahmed et. al. (2022) explored the impact of gamification on Iranian adult EFL upper intermediate level learners' idiomatic knowledge and attitudes. Participants were randomly assigned into an experimental group and a control group of twenty-five students each. The
Ebtihal A. Helal

The experimental group played a game called Idiomatico to enhance their idiomatic knowledge while the control group learned the same idioms through direct instruction and translation. Tools included an EFL proficiency test, an idiomatic knowledge pre-/posttest, a questionnaire and interviews. Posttest findings revealed the experimental group's significant idiomatic knowledge gains. Questionnaire and interview results revealed the experimental group's positive attitudes towards the GL experience as it was fun, fostered their engagement, minimized their anxiety and offered them immediate feedback.

Ali and Abdalgane (2022) investigated the effect of using Kahoot on fostering vocabulary acquisition and motivation among Saudi non-English freshmen. Participants were randomly assigned into a control group and an experimental group of thirty students each. The experimental group studied English vocabulary using Kahoot platform whereas the control group studied the same vocabulary according to the traditional method. Tools were a pre-/post vocabulary test and a motivational scale. Posttest results revealed that the experimental group remarkably surpassed the control group, thus providing evidence for GL positive role in promoting vocabulary acquisition among EFL undergraduates.

Sadeghi, Sağlık, Mede, Samur and Comert (2022) explored GL impact on Turkish undergraduates' vocabulary acquisition and motivational levels. Participants were randomly assigned into a control group and an experimental group of sixteen students each. The experimental group studied English vocabulary as they played a game called Taboo whereas the control group followed the conventional method of learning vocabulary. Tools were a vocabulary pre-/posttest, a pre-/post motivation questionnaire and interviews. Results proved that the experimental group had positive views of the GL experience as it fostered their motivational levels. Nevertheless, posttest results revealed that there were no significant differences in vocabulary gains between both groups. Hence, it was recommended to increase EFL learners' motivation through practising role playing, simulation and storytelling more frequently.

Panmei and Waluyo (2023) investigated the influence of Quizizz GL platform on fostering Thai non-English majors' vocabulary acquisition. Participants were EFL elementary to pre-intermediate level freshmen, and they were divided into an experimental group and a control group of 50 students each. The experimental group studied the target vocabulary through GL activities on Quizizz platform. The control group learned the same vocabulary items using weekly vocabulary lists without any form of gamification. Tools were a questionnaire, four weekly online vocabulary tests on Socrative platform and weekly practice exercises on Quizizz platform. Comparing overall vocabulary test results proved that there were no significant differences between both groups. However, significant differences were found between both groups in favour of the experimental group on the second and fourth vocabulary tests. Therefore, more experimental studies were suggested to verify the results of this study.

Wang (2023) examined the impact of GL through card games, slides and learning sheets on Taiwanese English sophomores' learning of newspaper terms. Participants were randomly assigned into a control group (N= 40) and an experimental group (N= 35). The study focused on twenty newspaper English terms. The experimental group went through a GL experience as they practised designing the card games, slides and learning sheets in
groups of four to five students and then competed in a Bingo game. The control group studied the same newspaper vocabulary items according to the regular method. Tools were a pre-/post vocabulary test and the students' self-reflections. Posttest findings demonstrated the experimental group's tangible vocabulary gains. Furthermore, analyzing the experimental group students' reflections revealed their positive perceptions of the GL hands-on experience.

**Commentary**

Reviewing pertinent studies enabled the researcher to pinpoint the recent employed approaches and strategies to promote PVs interpretation and use among EFL undergraduates. Moreover, these studies findings encouraged the researcher to carefully select interesting authentic content where target PVs are naturally contextualized. Furthermore, examining previous researches helped the researcher specify how FonF techniques and GL activities can be purposefully combined to foster Egyptian English sophomores' PVs comprehension and production. Additionally, exploring relevant studies aided the researcher while designing the study tools as well as while tailoring the current program activities, teaching strategy and assessment techniques.

**Method**

The current study adopted the Quasi-experimental method. This method was employed during designing the present study pre-/posttests and program. It was, also, followed while administering the pre-/posttests, implementing the intervention and analyzing as well as interpreting the tests results.

**Participants**

A group of sixty-four English sophomores at MSA University were randomly selected in the spring 2023 semester (thirty-two students in the experimental group and thirty-two students in the control group). Random assignment of individual students was not possible, so two intact classes were randomly selected and then randomly assigned to a control and an experimental group. Students’ age in both groups ranged from nineteen to twenty-one years old.

The experimental group was taught by the researcher throughout the intervention that lasted for two months and a half (three hours per week). However, while the experimental group students received training through a suggested program that integrated FonF techniques and GL activities to enhance their PVs comprehension and production, the control group students received regular instruction by the regular classroom instructor; this regular instruction focused primarily on contextualizing the target PVs in given sentences and asking the students to deduce their meanings using contextual clues. Then, once the regular classroom instructor made sure that the control group students adequately made meaning of the specified PVs, she asked her students to put these PVs in sentences of their own.

To identify if there were any statistically significant differences between both groups before the intervention, the pre-test mean scores were compared using t-tests for independent samples. Results of these t-tests indicated that there were no statistically
significant differences between both groups on the pre-test whether in overall PVs comprehension and production or in comprehending and producing the specified PVs categories. Thus, it can be deduced that both groups were approximately at the same level of PVs comprehension and production before the treatment application. It was, also, evident that the mean scores of both groups were quite low on both tests. Additionally, it was noticed that both groups' ability to produce target PVs was much below their ability to interpret their meanings.

**Research design**

This study is mainly experimental, and it employs the quasi-experimental non-equivalent group design. This design is identical to the pretest-posttest control group/experimental group design in all aspects except that intact groups rather than randomly assigned ones are used. Thus, it is essential to use a pre-test for this particular research design.

**Study tools**

*This study utilized the following two tools:*

- a pre-/post PVs comprehension test; and
- a pre-/post PVs production test.  

*These tools can be further demonstrated as follows:*

**A. The pre-/post PVs comprehension test**

This test was designed by the researcher and administered prior to the program application to evaluate the experimental and control groups' overall PVs comprehension as well as their comprehension of the target ten PVs categories. As a post-test, it was administered to examine the impact of the proposed program combining FonF techniques and GL activities on enhancing the experimental group's overall PVs comprehension and comprehension of the specified PVs categories.

To ensure the test validity, it was examined by a panel of jury consisting of six TEFL and assessment experts. This was carried out to evaluate the test items difficulty level and discrimination ability. It was, also, intended to assess the test items appropriateness to Egyptian English sophomores' linguistic level, age and cultural background.

Based on the jury members' scrutinization of the test items, the test was found valid and suitable for the purpose of the current study. To enhance the test validity, the jury members altered and deleted some of its items. To clarify, the test initial form had eighty items, so the jury members agreed that it was too long and that the fatigue factor could negatively affect the students' performance on the test. Therefore, they demanded that the test should be shortened to attain more reliable results.

Following the jury's remarks, the test final form had sixty items that were distributed in three sections. The test first section included thirty MCQs where the students were required to choose the most appropriate meanings of the underlined PVs in the given thirty sentences from either (a), (b) or (c). The test second section comprised fifteen items,
and in this section students were asked to match the underlined PVs in the given fifteen sentences in column (A) with their meanings in column (B). The test third section had fifteen items, and in this section students were requested to read the given fifteen sentences carefully and then write down the meanings of the underlined PVs in these sentences in the given spaces. It is important to note that throughout the test, comprehension of each of the specified ten PVs categories was measured six times.

The test duration was one hour, including giving the students clear directions on how to take the test. The test was marked by the researcher herself out of sixty as each test item carried one mark only. Wrong, left or double answers received a zero. While scoring the test third section items, students’ capitalization, spelling and grammatical errors were ignored as long as they could provide the correct meanings of the underlined PVs in the given sentences.

● Piloting the test

Prior to the test administration on the study participants, it was piloted on twenty-five students to time it and examine its suitability. These students were randomly selected from one of the English sophomores’ classes at MSA University. The pilot study results indicated that a period of one hour would provide the students with sufficient time to comfortably answer the test items. The test duration was estimated by adding the time taken by the fastest student to answer the test items (45 minutes) to the time taken by the slowest student (75 minutes) to complete the test and dividing the total by two. The pilot study, also, proved that the students faced no difficulty understanding the test items. It is essential to highlight that students of the pilot study did not take part in the current intervention.

To assess the reliability of the PVs comprehension test, it was administered on a random sample of twenty-five English sophomores. After two weeks, the test was re-taken by the same twenty-five students. The calculated Pearson reliability coefficient between the test/ re-test scores was 0.80, thus affirming the test reliability.

B. The pre-/post PVs production test

This test was designed by the researcher and administered before the program implementation to measure the experimental and control groups’ overall PVs production as well as their production of each of the specified ten PVs categories. As a post-test, it was taken to assess the effect of the suggested program on promoting the experimental group’s overall PVs production and their production of the target PVs categories.

To evaluate the test validity, it was scrutinized by a panel of jury comprising six TEFL and assessment specialists. They were asked to assess the test items difficulty level and discrimination ability. Besides, they were requested to appraise the test items suitability to Egyptian English sophomores’ linguistic competence, age and culture.

The jury members carefully examined the test items and assured it validity and appropriateness to achieving the present study target. Additionally, they modified and omitted some of the test items to increase its validity. To illustrate, the initial form of the
PVs production test had eighty items, so the jury members considered the test quite lengthy and requested that the test should be shortened to include sixty items at most. Also, in the test first section, the jury members stressed that PVs initials should be given between brackets to guide the test takers while attempting to produce the specified PVs.

In response to the jury's considerable comments, the test final form comprised sixty items only, and these items were distributed in two sections of thirty items each. Also, in the test first section, students were asked to use the provided initials as hints while replacing the underlined words or phrases in the given thirty sentences with PVs that nearly have the same meanings. In the test second section, students were required to correct the underlined PVs errors in the given thirty sentences using the clues of PVs synonyms. It is worth noting that students' production of each of the target ten PVs categories was assessed six times throughout the test.

The test time span was ninety minutes, including providing the students with clear test-taking instructions. The test was marked by the researcher herself out of sixty as each test item carried one mark only. A zero was given to wrong, left or double answers. While scoring both the test sections, students' capitalization, spelling and grammatical errors were ignored as long as they could produce correct PVs in the given sentences.

**Piloting the test**

Before administering the test on the study participants, it was piloted on twenty-five students to estimate its duration and assess its appropriateness. These students were randomly selected from an English sophomores' class at MSA University. The pilot study results indicated that a period of ninety minutes would offer the students ample time to answer the test items. The test duration was calculated by adding the time taken by the fastest student to answer the test items (60 minutes) to the time taken by the slowest student (120 minutes) to complete the test and dividing the sum by two. The pilot study, also, proved that the students encountered no difficulty comprehending the test items. The pilot study students were excluded from the experiment.

To measure the reliability of the PVs production test, it was taken by a random sample of twenty-five English sophomores. Two weeks later, the test was administered on the same twenty-five students. The calculated Pearson reliability coefficient between the test/ re-test scores (0.83) proved the test reliability.

**Treatment**

After the experimental group students took their PVs comprehension and production pre-tests, they received the present study intervention through a suggested program integrating FonF techniques and GL activities to promote their overall PVs comprehension and production as well as their comprehension and production of each of the specified ten PVs categories. *The program components can be illustrated as follows:*
Aim

The current program aimed at enhancing English sophomores' PVs comprehension and production. This target was accomplished through involving the experimental group in classroom activities combining FonF techniques and GL activities throughout the program application.

Learning objectives

By the end of this program, the experimental group students were anticipated to develop their overall comprehension and production of English PVs as well as their comprehension and production of each of the target ten PVs categories.

Content

The content of this program consisted of ten typographically enhanced written short stories, thirteen short educational You Tube videos and twelve YouTube stories that were discussed and reconstructed during dictogloss tasks.

As the researcher meticulously selected the program short stories and videos, she made sure that they would arouse English sophomores' interest as well as boost their motivation and engagement. Careful examination of the program short stories and videos, also, ensured their suitability for English sophomores' linguistic level, age and culture. This can be further explained in the following three tables:

Table (1): Titles of the typographically enhanced short stories read throughout the program sessions

<table>
<thead>
<tr>
<th>Session No.</th>
<th>Session Focus</th>
<th>Short Story Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Food and Drinks PVs</td>
<td>&quot;Martha’s Eating Tips and Dinner Party&quot;</td>
</tr>
<tr>
<td>Two</td>
<td>Weather PVs</td>
<td>&quot;A Camping Trip in Bad Weather&quot;</td>
</tr>
<tr>
<td>Three</td>
<td>Change PVs</td>
<td>&quot;Alan's Change Story&quot;</td>
</tr>
<tr>
<td>Four</td>
<td>Education PVs</td>
<td>&quot;Going Through College&quot;</td>
</tr>
<tr>
<td>Five</td>
<td>Work PVs</td>
<td>&quot;Manager of the Month&quot;</td>
</tr>
<tr>
<td>Six</td>
<td>Travel &amp; Transportation PVs</td>
<td>&quot;Barry's Car Journey&quot;</td>
</tr>
<tr>
<td>Seven</td>
<td>Daily Activities PVs</td>
<td>&quot;Daily Routines&quot;</td>
</tr>
<tr>
<td>Eight</td>
<td>Health &amp; Fitness PVs</td>
<td>&quot;Maggie's Medical Story&quot;</td>
</tr>
<tr>
<td>Nine</td>
<td>Clothing &amp; Appearance PVs</td>
<td>&quot;Dressing for a Party&quot;</td>
</tr>
<tr>
<td>Ten</td>
<td>Money &amp; Shopping PVs</td>
<td>&quot;Paying Bills and debts&quot;</td>
</tr>
</tbody>
</table>

As illustrated in table (1), each of the program ten short stories included twelve to fifteen PVs belonging to a certain category. These PVs were naturally contextualized to enhance English sophomores' ability to comprehend and produce these PVs. Additionally, the target PVs were typographically enhanced in these short stories through boldfacing and underlining them as well as using a bigger font size and a red colour. The purpose of this textual enhancement was to draw English sophomores' attention to these PVs, thus facilitating their acquisition. Besides, through measuring these ten short stories readability level according to Chall's & Dale's (1995) formula, it was found that their readability scores
ranged from 9.0 to 9.9, thus proving their linguistic appropriateness for upper intermediate level English sophomores.

**Table (2): Titles and URLs of the YouTube instructional videos watched during the program mini-lessons**

<table>
<thead>
<tr>
<th>Session No.</th>
<th>Video Title</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two</td>
<td>&quot;Super Useful Weather Phrasal Verbs&quot;</td>
<td><a href="https://youtu.be/tcOK8dJOnpk">https://youtu.be/tcOK8dJOnpk</a></td>
</tr>
<tr>
<td>Three</td>
<td>&quot;CHANGE Phrasal Verbs&quot;</td>
<td><a href="https://youtu.be/II6_YvOWAJl">https://youtu.be/II6_YvOWAJl</a></td>
</tr>
<tr>
<td>Four</td>
<td>&quot;8 Phrasal Verbs to Talk about Studying and Exams&quot;</td>
<td><a href="https://youtu.be/DhO1q_dO-Ok">https://youtu.be/DhO1q_dO-Ok</a></td>
</tr>
<tr>
<td>Five</td>
<td>&quot;10 Business English Phrasal Verbs&quot;</td>
<td><a href="https://youtu.be/aiKuupciZSg">https://youtu.be/aiKuupciZSg</a></td>
</tr>
<tr>
<td>Six</td>
<td>&quot;Useful Phrasal Verbs for Travel in English&quot;</td>
<td><a href="https://youtu.be/bNgCN3OPulM">https://youtu.be/bNgCN3OPulM</a></td>
</tr>
<tr>
<td></td>
<td>&quot;15 Phrasal Verbs about Driving with Examples&quot;</td>
<td><a href="https://youtu.be/JdZ9NGLDQFw">https://youtu.be/JdZ9NGLDQFw</a></td>
</tr>
<tr>
<td>Eight</td>
<td>&quot;Health Phrasal Verbs in English&quot;</td>
<td><a href="https://youtu.be/7Otfxx0S4cE">https://youtu.be/7Otfxx0S4cE</a></td>
</tr>
<tr>
<td></td>
<td>&quot;Exercise Phrasal Verbs&quot;</td>
<td><a href="https://youtu.be/mxpsHUUWRxw">https://youtu.be/mxpsHUUWRxw</a></td>
</tr>
<tr>
<td>Nine</td>
<td>&quot;Useful Phrasal Verbs to Easily Talk about Clothing&quot;</td>
<td><a href="https://youtu.be/gmQmyJf1jP8">https://youtu.be/gmQmyJf1jP8</a></td>
</tr>
<tr>
<td>Ten</td>
<td>&quot;Money Phrasal Verbs in English&quot;</td>
<td><a href="https://youtu.be/-v6Gk8Uzgjk">https://youtu.be/-v6Gk8Uzgjk</a></td>
</tr>
<tr>
<td></td>
<td>&quot;Useful Shopping Phrasal Verbs to Improve Your English&quot;</td>
<td><a href="https://youtu.be/tmQETbzoEew0">https://youtu.be/tmQETbzoEew0</a></td>
</tr>
</tbody>
</table>

As demonstrated in table (2), in each of the program thirteen YouTube instructional videos, eight to fifteen PVs were contextualized in sentences uttered by native English speakers and their meanings were clearly explicated. These videos served as clear, brief mini-lessons for providing English sophomores with explicit instruction of PVs without boring them or placing tiring cognitive processing burden on them. In the program thirteen instructional videos, the researcher assured the speakers' pronunciation clarity and moderate speech speed to enable English sophomores to easily follow the content, thus facilitating their contextualized acquisition of the target PVs.
As highlighted in table (3), the twelve short YouTube stories listened to during the dictogloss tasks were closely related to the linguistic focus of each session. They were told by a native speaker using clear pronunciation at a normal pace. Furthermore, the PVs in each story were pictorially enhanced to promote their acquisition among English sophomores. While choosing these stories, the researcher made sure they were linguistically and culturally adequate for Egyptian English sophomores.

**Activities**

Throughout the proposed program, the experimental group practised varied activities integrating FonF techniques and GL activities. These activities took place individually, in pairs as well as in groups of four and then were shared with the whole class. The program activities were practised before, during and after reading the sessions short stories, and they aimed at striking the balance between form and meaning while fostering the students' PVs interpretation and correct use. They, also, attempted to arouse the students' interest, boost their motivation and enhance their engagement through gamifying some of the FonF techniques. *To elaborate, the program activities can be explained as follows:*

Before reading the given short stories where target PVs were naturally contextualized, students discussed several images and pictures to relate these PVs to their
real life experiences and activate their prior knowledge of the specified PVs. Then, students used the displayed images and the short stories titles to predict the content of the given stories as they filled in the prediction/ confirmation charts. They were told that they would find out whether their predictions were confirmed or refuted as they read the short stories. After that, they filled in the initial forms of the story maps, and they were told that they would complete the story maps after they finished reading the given stories. Afterwards, students previewed reading comprehension questions that they were requested to answer while reading the stories.

In the during-reading phase, students practised reading the given short stories twice. During the first reading, they focused on the story events to ensure their comprehension of the story content. They were, also, guided to stop at different stages during reading to predict the next events and see whether their predictions were confirmed or refuted. After the first reading, students answered reading comprehension questions in groups of four students. Then, they checked their answers during classroom discussions with the whole class and received the teacher's feedback. During the second reading, students worked in pairs, and they were directed to notice the target typographically enhanced PVs in the stories. Students were, also, requested to use contextual clues to guess the meanings of the specified PVs. As the students discussed their guesses of the target PVs meanings in pairs, the teacher rotated among them, listened to their guesses and guided them to use contextual clues to make meaning of the target PVs.

After reading, students completed the final forms of (a) the prediction/ confirmation charts and (b) the story maps that they started drawing earlier in the pre-reading phase. This was done to ensure that the students adequately comprehended the stories content before paying special attention to comprehending and producing the specified PVs. To foster the students' comprehension of the contextualized PVs in the given short stories, they logged into Quizizz platform using the given codes and joined the MCQ games designed by the researcher. These games served as FonF referential input processing structured tasks that were introduced in an interesting gamified format. In these MCQ games, students were asked to choose the most appropriate meanings of the underlined PVs in given sentences from either (a), (b) or (c). To foster the students' production of the short stories PVs, they were required to work in competitive groups of four and do a FonF communicative task where they wrote summaries of the given short stories using at least five of the newly introduced PVs.

After that, students received FonF explicit instruction of the target PVs categories as they watched short YouTube mini-lessons. In each video, more examples of the specified PVs categories were highlighted and contextualized in authentic sentences uttered by native speakers. To foster the students' comprehension of the PVs in the instructional videos, they worked in pairs and practised another FonF referential input processing structured task offline as they matched the underlined PVs in given sentences with their meanings. To promote the students' production of the specified PVs introduced in the audio-visual mini-lessons, students logged into Quizizz platform to answer gap-filling items where they wrote suitable PVs in given sentences using the clues of PVs initials and meanings. This online gap-filling game functioned as a FonF meaningful drill. Then, to further enhance the students' PVs production, they practised a FonF dictogloss task where they listened three
times to YouTube short stories, and they were asked to reconstruct these stories in groups of four.

To further develop the students' ability to produce target PVs categories, they did varied FonF communicative tasks either in groups of four or in pairs. In these output tasks, students were requested to authentically use five to seven of the specified PVs to express their ideas and emotions whether in a spoken or a written format. The following table highlights the FonF communicative tasks practised throughout the program sessions.

Table (4) The FonF communicative tasks practised in the post-reading phase to promote PVs production

<table>
<thead>
<tr>
<th>Session No.</th>
<th>Session Focus</th>
<th>Communicative Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Food and Drinks PVs</td>
<td>Writing a Facebook post where the students would work in pairs to give readers useful tips on how to eat well and stay physically fit</td>
</tr>
<tr>
<td>Two</td>
<td>Weather PVs</td>
<td>Working in groups of four to write and tell classmates a story about last week’s picnic that was disrupted because of bad weather.</td>
</tr>
<tr>
<td>Three</td>
<td>Change PVs</td>
<td>Doing a simulation task in groups of four where the company CEO holds a meeting with the human resources, sales and marketing managers to discuss the new development plan.</td>
</tr>
<tr>
<td>Four</td>
<td>Education PVs</td>
<td>Working in pairs to write an email to the students' best friends describing their university study experience</td>
</tr>
<tr>
<td>Five</td>
<td>Work PVs</td>
<td>Doing a role play in pairs where a newly hired employee tells his cousin the steps he went through while attending the job fair in order to get recruited</td>
</tr>
<tr>
<td>Six</td>
<td>Travel &amp; Transportation PVs</td>
<td>Writing a diary entry in groups of four narrating the students' most memorable experience while travelling by land or by air.</td>
</tr>
<tr>
<td>Seven</td>
<td>Daily Activities PVs</td>
<td>Giving a two-minute oral presentation where pairs of students describe their daily activities</td>
</tr>
<tr>
<td>Eight</td>
<td>Health &amp; Fitness PVs</td>
<td>Telling a story in groups of four about a friend or a relative who lost weight after adopting a healthy lifestyle and exercising regularly</td>
</tr>
<tr>
<td>Nine</td>
<td>Clothing &amp; Appearance PVs</td>
<td>Imagining that they are fashion stylists and writing a blog in pairs offering young people useful tips on how to get dressed on formal and informal occasions</td>
</tr>
<tr>
<td>Ten</td>
<td>Money &amp; Shopping PVs</td>
<td>Doing a simulation task in pairs where an economic expert is interviewed in a TV program to advise the audience on how to spend money wisely while shopping for necessities</td>
</tr>
</tbody>
</table>

As shown in table (4), the varied FonF communicative tasks helped the experimental group purposefully use the target PVs to convey meaningful messages. They, also, aimed at helping the students achieve native-like fluency and naturalness. Additionally, students were asked to self-evaluate their ability to express adequate well-developed ideas while accurately using the specified PVs.
Treatment duration

After designing the suggested program, it was presented to a panel of jury and adapted in the light of their constructive remarks. Then, the researcher randomly selected twenty-five English sophomores and implemented two randomly chosen sessions with them. Based on the pilot study, it was found that the program content, activities, teaching strategy and instructional aids were suitable for the students' linguistic competence, age and culture.

The pilot study students maintained that the implemented materials and activities of both sessions were quite engaging and interesting. They liked the short stories they read, the YouTube mini-lessons and dictogloss tasks as they introduced target PVs in meaningful motivating contexts. They particularly liked the GL activities as they were fun, competitive and exciting. They found the communicative tasks practised in the post-reading phase quite innovative and interesting. However, they sometimes found the GL formative assessment tasks of (a) writing down PVs meanings in the provided spaces and (b) correcting the PVs underlined errors quite demanding. They, also, liked the implicit CF techniques of elicitation and repetition as they increased their self-confidence and active participation. Nevertheless, they stated that whenever they were unable to come up with the correct answers, the teacher's recast and explicit correction were beneficial and necessary.

Through the pilot study, it was, also, evident that each session required 180 minutes (three hours) to enable the students to adequately carry out the session PVs comprehension and production tasks. In addition to the introductory session- where the students were introduced to the program objectives, materials and activities-, the implementation of the proposed program was carried out in ten sessions during the spring semester of the 2022-2023 academic year. The experimentation started on February 14th, 2023 and ended on May, 7th 2023.

The suggested teaching strategy

Throughout the program application, the researcher followed a proposed teaching strategy with the experimental group. As indicated earlier, this strategy integrated FonF techniques and GL activities to enhance PVs comprehension and production among the experimental group.

According to this teaching strategy, each session was divided into three phases. These phases were as follows:

I. Pre-reading phase
II. During-reading phase
III. Post-reading phase

These phases could be illustrated as follows:

Pre-reading

This phase aimed at relating English PVs to the students' real life experiences and activating their prior knowledge of the specified PVs categories with the help of guiding images and photos that were displayed on the data show.
b. For example, in session two where the focus was on weather PVs, the teacher displayed an image of heavy rain on the data show and asked the students, "Do you remember what happened when it rained heavily last January? How did you feel at that time? Were you able to resume your usual activities during heavy rain or did you have to put some activities off until the weather got better? Do you know any PV related to heavy rain?" As the students answered the teacher's questions, some of them maintained that they enjoyed the rain in general; however, last January it rained heavily, and many streets were blocked as they were covered with water. Consequently, they could not arrive at the university campus on time. Additionally, some of them mentioned that due to heavy rain, they were unable to resume their usual activities, and they had to reschedule some of these activities to a later date. When asked about a PV related to heavy rain, one student highlighted the PV, 'to be rained off', and said it is used in a context like, "It poured down throughout the day, so we were rained off and could not play the match on time."

c. After relating the specified PVs categories to the students' previous experiences and prior knowledge, the teacher told the students that they would explore more PVs that are related to the session focus in varied contexts as they (a) read a short story, (b) watched a YouTube mini-lesson where target PVs were contextualized in sentences and their meanings were explicitly stated and (c) listened to as well as reconstructed a YouTube short story in the dictogloss task.

d. Before reading the short story, students were asked to fill in a prediction/confirmation chart where they predicted from the title and the accompanying pictures what the story would be about.

e. The teacher told the students that they would see whether their predictions would be confirmed or refuted as they read the short story.

f. Then, based on the title & accompanying pictures, the students filled in an initial form of a story map.

g. After filling in the initial form of the story map, students were told that they would complete this form after reading the story, thus adding more details and more accurate information.

h. Then, students previewed reading comprehension questions that they were requested to answer while reading the story.

**During reading**

a. This phase aimed at drawing the students' attention to target PVs as they were typographically enhanced in the short stories. It, also, aimed at fostering the students' comprehension of these PVs.

b. Students read the short stories twice. During the first reading, they focused on the story events to ensure their comprehension of the story content. They were, also, guided to stop at different stages during reading to predict next events and see whether their predictions were confirmed or refuted.

c. After the first reading, students answered reading comprehension questions in groups of four students. Then, they checked their answers during classroom discussions with the whole class and received the teacher's feedback.
d. During the second reading, students worked in pairs, and they were directed to notice the target typographically enhanced PVs in the stories. They were, also, requested to use contextual clues to guess the meanings of the specified PVs.

e. As the students discussed their guesses of the target PVs meanings in pairs, the teacher rotated among them, listened to their guesses and guided them to use contextual clues to make meaning of target PVs.

Post-reading

a. This phase aimed at fostering the students' comprehension and production of the target PVs as they practised varied FonF techniques and played varied engaging, competitive games on Quizizz platform.

b. To make sure that the students adequately comprehended the story content, they were encouraged to complete the final forms of (a) the prediction/ confirmation charts and (b) the story maps that they started drawing earlier in the pre-reading phase.

c. To foster the students' comprehension of the target PVs, they logged into Quizizz platform using the internet connection on their smartphones and the given codes and played the MCQ games which functioned as FonF referential input processing structured task. The following is an example of an MCQ game played online on Quizizz platform in session five on work PVs.

<table>
<thead>
<tr>
<th>Choose the most appropriate meanings of the underlined PVs in the following sentences from either (a), (b) or (c):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The new manager was able to <strong>turn around</strong> the company in a few months.</td>
</tr>
<tr>
<td>a. change the company's status from unsuccessful to successful</td>
</tr>
<tr>
<td>2. It is not enough to <strong>tinker with</strong> the company marketing scheme.</td>
</tr>
<tr>
<td>a. introduce drastic changes</td>
</tr>
<tr>
<td>3. Staff members will not be happy if the new manager <strong>messes around with</strong> their work routines.</td>
</tr>
<tr>
<td>a. objects to</td>
</tr>
<tr>
<td>4. Dave was <strong>picked up</strong> to be Manager of the Month.</td>
</tr>
<tr>
<td>a. selected</td>
</tr>
<tr>
<td>5. Sarah was able to <strong>shake things up</strong> completely in the finance department.</td>
</tr>
<tr>
<td>a. make big changes</td>
</tr>
</tbody>
</table>

d. As the students played the MCQ games on Quizizz platform, they received instant feedback on their performance, and leaderboards highlighted the students' ranks according to their scores. The students who got the highest scores in these games were identified and rewarded.

e. To foster the students' production of the target PVs, they were required to work in competitive groups of four and do a FonF communicative task where they wrote summaries of the given short stories using at least five of the newly introduced PVs.

f. Then, the teacher randomly selected representatives of five groups who sat in the author's chair, read aloud the written summaries and received their peers' and teachers' feedback. The winning group was the one that wrote concise summaries using at least correct five target PVs.

g. After that, students received FonF explicit instruction of target PVs categories as they watched YouTube mini-lessons. In each video, more examples of the specified
PVs categories were highlighted and contextualized in authentic sentences uttered by native speakers.

h. To foster the students' comprehension of the PVs in the instructional videos, they worked in pairs and practised another FonF referential input processing structured task offline as they matched the underlined PVs in given sentences with their meanings. The following is an example of this matching activity done in session nine where the focus was on clothing and appearance PVs.

**Match the underlined PVs in the following sentences in column (A) with their meanings in column (B).**

<table>
<thead>
<tr>
<th>Column (A)</th>
<th>Column (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It takes time to <strong>break in</strong> new shoes.</td>
<td>a. (____) To put clothes on quickly and without thought</td>
</tr>
<tr>
<td>2. Sarah would like to <strong>try on</strong> a new outfit.</td>
<td>b. (____) To fasten something with buttons</td>
</tr>
<tr>
<td>3. Adam had to <strong>throw</strong> a tie <strong>on</strong> for the meeting.</td>
<td>c. (____) To wear formal clothes</td>
</tr>
<tr>
<td>4. <strong>Button up</strong> your cardigan; it is cold outside.</td>
<td>d. (____) To wear causal or less formal clothes</td>
</tr>
<tr>
<td>5. On Thursdays, employees are allowed to <strong>dress down</strong>.</td>
<td>e. (____) To wear something new to make it comfortable</td>
</tr>
<tr>
<td>6. He usually <strong>dresses up</strong> for job interviews.</td>
<td>f. (____) To check and see how clothes fit and look</td>
</tr>
</tbody>
</table>

i. After that, students checked their answers in a classroom discussion that was guided by their teacher.

j. To promote the students' production of the specified PVs introduced in the YouTube mini-lessons, students logged into Quizizz platform to answer gap-filling items where they wrote suitable PVs in given sentences using the clues of PVs initials and meanings. This online gap-filling game functioned as a FonF meaningful drill. The following is an example of this gap-filling game played in session ten which focused on money and shopping PVs.

**Fill in the gaps in the following sentences by writing suitable phrasal verbs using the given phrasal verbs initials and italicized meanings.**

1. I need to *s…….u…….more money to buy a bigger house. (keep money for the future)*.
2. You should not *b…………money o…….this expensive car. (spend money wastefully)*
3. I spent one hour in the clothes shop until I was able to *p………o…….a nice suit for the graduation ceremony. (choose)*
4. During the sale, this laptop price was *m………d…….from $2000 to $1800. (reduced)*
5. We usually *s………a…….before we decide which item to buy. (compare prices)*

k. To further enhance the students' PVs production, they practised a FonF dictogloss task where they listened three times to YouTube short stories, and they were asked to reconstruct these stories in groups of four. As highlighted earlier, the PVs in each story were pictorially enhanced to facilitate their acquisition. During the first listening, students paid careful attention but did not take any notes. Then, while listening to these stories for the second time, they took notes using key words, abbreviations and symbols. During the third listening, students added more elaboration to their notes. After that, they used their notes to collaboratively reconstruct the stories. Afterwards, they compared their versions of the stories to the
versions written by students of the other groups as well as to the original stories. As a result of this comparison, they identified and corrected their errors.

1. To further develop the students' ability to produce target PVs categories, they did varied FonF communicative tasks either in groups of four or in pairs. As indicated earlier, in these communicative tasks, students were required to use five to seven of the specified PVs to write Facebook posts, blogs, diaries entries and emails, narrate stories, do role plays and simulation tasks as well as give oral presentations.

m. It is important to note that the teachers followed FonF CF techniques whenever the students made mistakes while attempting to make meaning of or produce the specified PVs categories. Thus, she employed varied implicit CF techniques including recast, metalinguistic feedback, repetition, elicitation and clarification request. In case the students were still unable to correct themselves after employing implicit CF techniques, the teacher used explicit correction.

**Instructional aids and equipment**

The following aids were employed during the current program sessions:

1. The images used before reading to relate English PVs to the students' real life experiences and previous knowledge;
2. The short stories read to naturally introduce typographically enhanced contextualized target PVs, thereby facilitating their acquisition;
3. The handouts where the students answered reading comprehension questions to ensure their comprehension of the short stories before drawing their attention to the target PVs;
4. The YouTube mini-lessons used to introduce more contextualized PVs in authentic sentences, thus enabling the students to identify their meanings;
5. The post-reading online GL activities accessed on Quizizz platform to promote the students' comprehension and production of the specified PVs categories;
6. The pictorially enhanced short stories listened to and reconstructed during the dictogloss tasks to develop the students' ability to produce target PVs;
7. The handouts including the offline FonF inferential input processing matching tasks practised each session to ensure the students' comprehension of the target PVs included in the YouTube mini-lessons;
8. The handouts including the offline communicative tasks practised in the post-reading phase to enhance English sophomores' PVs production;
9. The GL formative assessment activities practised at the end of each session to appraise the students' ability to interpret and use target PVs throughout the sessions; and
10. The data show that displayed the short stories, images, videos and varied activities throughout the sessions.

**Assessment**

Throughout the present program application, formative assessment was carried out as follows:

I. For formatively assessing the students' PVs comprehension, they logged into Quizizz platform and practised a FonF structured input processing gap-filling
task. In this task, they were requested to read the given sentences well and write down the meanings of the italicized PVs in the provided spaces.

II. For formatively assessing the students' PVs production, two tasks were carried out.

- First, students were asked to self-assess their performance in the post-reading FonF communicative tasks as they answered the following three open-ended questions:
  - How far were the group/pair members able to convey a clear comprehensible message using correct PVs?
  - What were the errors made by the group/pair members while using PVs in this task?
  - How can these PVs errors be corrected to foster the written/spoken products comprehensibility and accuracy?
- Then, as the students worked in pairs or groups to self-evaluate their performance, the teacher rotated among them, listened to their answers and offered her remarks only when necessary.
- Second, students logged into Quizizz platform and practised a FonF meaningful drill at the end of each session as they corrected the underlined PVs errors in given sentences with the help of their provided PVs meanings.

At the end of the treatment, summative assessment took place when the PVs comprehension and production posttests were administered on the experimental group. This summative assessment aimed at measuring the suggested program impact on promoting the experimental group's overall PVs comprehension and production. It, also, aimed at identifying the effectiveness of the proposed program in fostering the experimental group students' ability to interpret and use the identified ten PVs categories as compared to their pre-test performance and as compared to the control group's posttest performance.

**Statistical analysis**

After administering the PVs comprehension and production pre-/posttests on the control and experimental groups, independent as well as paired-samples t-tests were used in order to verify the study eight hypotheses. Besides, to evaluate the effectiveness of the suggested program in fostering the experimental group students' PVs comprehension and production as compared their counterparts in the control group, its effect size values were calculated according to Eta squared (η) measure for independent samples as highlighted by Brown (2008). Furthermore, following Cohen's d formula that was demonstrated by Lakens (2013), effect size values for paired samples were calculated to measure the program impact on enhancing the experimental group's PVs comprehension and production on the posttests as compared to their performance on the pre-tests.

**Results**

The study findings in relation to its hypotheses can be presented as follows:

**Hypothesis One:** There is a statistically significant difference between the mean scores of the experimental group exposed to the proposed program integrating FonF and GL and the control group receiving regular instruction on the posttest in overall PVs comprehension in favour of the experimental group.
To determine the effect of the current program application on the experimental group's overall PVs comprehension on the posttest as compared to the control group's overall PVs comprehension on the posttest, an independent sample t-test was utilized. See table (5).

Table (5)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
<th>D.F.</th>
<th>t value</th>
<th>Significance Level</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>32</td>
<td>46.59</td>
<td>1.70</td>
<td>62</td>
<td>34.03</td>
<td>Significant at 0.01 Level</td>
<td>0.95</td>
</tr>
<tr>
<td>Control</td>
<td>32</td>
<td>35.94</td>
<td>2.20</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
</tbody>
</table>

Table (5) reveals the statistically significant difference at 0.01 level in overall PVs comprehension between the experimental and control groups' posttest means in favor of the experimental group as the calculated t-value was (34.03). Hence, the first hypothesis was accepted. In addition, the calculated eta squared effect size value (0.95) proved the large effect of the present program implementation on the experimental group's overall PVs comprehension as compared to the control group's overall comprehension of PVs on the post-test.

The following figure illustrates the experimental group's remarkable growth in overall PVs comprehension after the application of the suggested program as compared to the control group's overall PVs comprehension on the posttest:

![Figure (1)](image)

Comparison of the experimental and control groups' posttest means in overall PVs comprehension

**Hypothesis Two:** There are statistically significant differences between the mean scores of the experimental group and the control group on the posttest in comprehending each of the specified ten PVs categories in favour of the experimental group.

In order to examine the second hypothesis validity, independent samples t-tests were employed. The t-test results demonstrated the statistically significant differences between the experimental and control groups' posttest means in comprehending the target PVs categories in favour of the experimental group. Therefore, the second hypothesis was affirmed.
The upcoming table demonstrates this statistical significance at 0.01 level. Furthermore, the calculated effect size values provided evidence for the current program large effect on the experimental group's comprehension of the specified PVs categories as compared to control group students.

It is worth noting that the proposed program had large effect size values of (0.80), (0.77), (0.78), (0.73), (0.79), (0.72), (0.76), (0.70), (0.75) and (0.71) on the experimental group's comprehension of food and drinks, weather, change, education, work, travel and transportation, daily activities, health and fitness, clothing and appearance as well as shopping and money PVs respectively. This, in turn, provides evidence for the positive influence of integrating FonF techniques and GL activities on promoting English sophomores' meaning-making capability of target PVs. Moreover, the above mentioned effect size values demonstrated that the implemented program had its largest effect on the experimental group students' comprehension of food and drinks PVs, and then comes in a descending order its large effect on their ability to comprehend work, change, weather, daily activities, clothing and appearance, education, travel and transportation, shopping and money as well as health and fitness PVs.

Table (6)

<table>
<thead>
<tr>
<th>English categories PVs</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
<th>D.F.</th>
<th>t value</th>
<th>Significance Level</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and drinks PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.72</td>
<td>0.63</td>
<td>62</td>
<td>15.68</td>
<td>Significant at 0.01 Level</td>
<td>0.80</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>32</td>
<td>2.47</td>
<td>0.51</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
<tr>
<td>Weather PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.75</td>
<td>0.57</td>
<td>62</td>
<td>14.43</td>
<td>Significant at 0.01 Level</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>32</td>
<td>2.63</td>
<td>0.61</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
<tr>
<td>Change PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.66</td>
<td>0.60</td>
<td>62</td>
<td>14.83</td>
<td>Significant at 0.01 Level</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>32</td>
<td>2.45</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
<tr>
<td>Education PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.63</td>
<td>0.55</td>
<td>62</td>
<td>13.01</td>
<td>Significant at 0.01 Level</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>32</td>
<td>2.66</td>
<td>0.65</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
<tr>
<td>Work PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.53</td>
<td>0.51</td>
<td>62</td>
<td>15.09</td>
<td>Significant at 0.01 Level</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>32</td>
<td>2.50</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
<tr>
<td>Travel and Transportation PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.69</td>
<td>0.64</td>
<td>62</td>
<td>12.65</td>
<td>Significant at 0.01 Level</td>
<td>0.72</td>
</tr>
<tr>
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<td>Health and Fitness PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.63</td>
<td>0.66</td>
<td>62</td>
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<td>Significant at 0.01 Level</td>
<td>0.70</td>
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<td>0.65</td>
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<td>62</td>
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<td>Shopping and Money PVs</td>
<td>Experimental</td>
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<td>4.59</td>
<td>0.56</td>
<td>62</td>
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<td>Significant at 0.01 Level</td>
<td>0.71</td>
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<td></td>
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<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td>Large</td>
</tr>
</tbody>
</table>
Ebtihal A. Helal

**Hypothesis Three:** There is a statistically significant difference between the mean scores of the experimental group and the control group on the posttest in overall PVs production in favour of the experimental group.

<table>
<thead>
<tr>
<th>T-test results comparing the experimental and control groups' posttest means in overall PVs production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Experimental</td>
</tr>
<tr>
<td>Control</td>
</tr>
</tbody>
</table>

As indicated in table (7), the t-test value (29.05) revealed the significant difference between the experimental and control group students' posttest means in overall PVs production in favour of the experimental group. Hence, the third hypothesis was accepted. In addition, the effect size value (0.93) proved that the applied program had a strong effect on developing the experimental group's overall production of PVs.

The following figure demonstrates the experimental group's tangible progress in overall PVs production after the suggested program implementation as compared to the control group's overall production of PVs on the posttest.

**Comparison of the experimental and control groups Posttest means in overall PVs production**

**Hypothesis Four:** There are statistically significant differences between the mean scores of the experimental group and the control group on the posttest in producing each of the specified ten PVs categories in favour of the experimental group.
In order to investigate the fourth hypothesis validity, independent samples t-tests were employed. The t-test results proved the statistically significant differences between the experimental and control groups' posttest means in producing the specified PVs categories in favour of the experimental group. The above table shows this statistical significance at 0.01 level. Therefore, the fourth hypothesis was confirmed.

The estimated effect size values, also, proved that the proposed program had a large effect on the experimental group's production of the target categories of PVs as compared to the control group. It is worth highlighting that the present program had large effect size values of (0.64), (0.79), (0.74), (0.73), (0.72), (0.76), (0.75), (0.70), (0.71) and (0.59) on the experimental group students' production of food and drinks, weather, change, education, work, travel and transportation, daily activities, health and fitness, clothing and appearance as well as shopping and money PVs respectively. This, in turn, provides evidence for the positive role of combining FonF techniques and GL activities in promoting English sophomores' production of English PVs. Moreover, it is worth noting that the aforementioned effect size values revealed that the current program had its largest effect on the experimental group's production of weather PVs, and then comes in a descending order its large effect on their production ability of travel and transportation, daily activities, change, education, work, clothing and appearance, health and fitness, food and drinks as well as shopping and money PVs.

### Table (8)

T-test results comparing the experimental and control groups' posttest means in producing the specified PVs categories

<table>
<thead>
<tr>
<th>English categories</th>
<th>PVs</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
<th>D.F.</th>
<th>t value</th>
<th>Significance Level</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and drinks PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.28</td>
<td>0.63</td>
<td>62</td>
<td>10.52</td>
<td>Significant at 0.01 Level</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>32</td>
<td>2.66</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weather PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.75</td>
<td>0.57</td>
<td>62</td>
<td>14.91</td>
<td>Significant at 0.01 Level</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>32</td>
<td>2.53</td>
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<td>0.55</td>
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<td>0.51</td>
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<td>0.72</td>
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<td>0.65</td>
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<td></td>
</tr>
<tr>
<td>Travel and Transportation PVs</td>
<td>Experimental</td>
<td>32</td>
<td>4.69</td>
<td>0.64</td>
<td>62</td>
<td>14.03</td>
<td>Significant at 0.01 Level</td>
<td>0.76</td>
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<tr>
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<td>0.56</td>
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<td></td>
</tr>
<tr>
<td>Daily Activities PVs</td>
<td>Experimental</td>
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<td>4.66</td>
<td>0.55</td>
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<td>13.93</td>
<td>Significant at 0.01 Level</td>
<td>0.75</td>
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<tr>
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<td>32</td>
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<tr>
<td>Health and Fitness PVs</td>
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<td>0.66</td>
<td>62</td>
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<td>Significant at 0.01 Level</td>
<td>0.70</td>
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<tr>
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<td>4.75</td>
<td>0.62</td>
<td>62</td>
<td>12.24</td>
<td>Significant at 0.01 Level</td>
<td>0.71</td>
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</tr>
<tr>
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<td>Shopping and Money PVs</td>
<td>Experimental</td>
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<td>9.49</td>
<td>Significant at 0.01 Level</td>
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</tr>
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</table>
Hypothesis Five: There is a statistically significant difference between the mean scores of the experimental group on the pre-test and the posttest in overall PVs comprehension in favour of the posttest.

To verify the validity of the fifth hypothesis, a paired sample t-test was conducted to compare the experimental group's mean scores in overall English PVs comprehension before and after the program implementation. Table (9) reveals that the current program had a significant effect on the experimental group's overall PVs comprehension. This was illustrated in their tangible growth after the program application. The estimated t-value (42.09) and Cohen's d effect size value (7.44) provide evidence that affirms the fifth hypothesis.

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
<th>D.F.</th>
<th>t value</th>
<th>Significance Level</th>
<th>Effect Size</th>
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<tr>
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<td>42.09</td>
<td>Significant at 0.01 Level</td>
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<td>46.59</td>
<td>1.70</td>
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<td></td>
<td></td>
<td>Large</td>
</tr>
</tbody>
</table>

The following figure demonstrates the experimental group's remarkable growth in overall PVs comprehension on the posttest as compared to their overall PVs comprehension on the pre-test:

![Figure (3)](image)

Comparison of the experimental group's pre-/posttest means in overall PVs comprehension

Hypothesis Six: There are statistically significant differences between the mean scores of the experimental group on the pre-test and the posttest in comprehending each of the specified ten PVs categories in favour of the posttest.

To examine the sixth hypothesis validity, paired samples t-tests were conducted to compare the pre-posttests means of the experimental group's target PVs categories comprehension. As illustrated in table (9) below, results of the t-tests proved the experimental group's substantial growth in comprehending all the specified PVs categories. Thus, the t-test values provided tangible evidence to accept the sixth hypothesis.
It should be noted that the effect size values of (2.10), (2.05), (2.18), (2.16), (2.19),
(2.04), (2.07), (2.55), (2.95) and (2.52) for food and drinks, weather, change, education,
work, travel and transportation, daily activities, health and fitness, clothing and appearance
as well as shopping and money PVs respectively proved that the applied program had a
large effect on the experimental group’s comprehension of the target PVs categories.
Additionally, it was found that the implemented program had its largest effect on the
experimental group’s comprehension of clothing and appearance PVs, and then comes in a
descending order its large effect on their ability to comprehend health and fitness, shopping
and money, work, change, education, food and drinks, daily activities, weather as well as
travel and transportation PVs.

**Table (10)**

T-test results comparing the experimental group's pre-posttest means in comprehending the specified English PVs categories

<table>
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<tr>
<th>English categories</th>
<th>PVs</th>
<th>Test</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
<th>D.F.</th>
<th>t value</th>
<th>Significance Level</th>
<th>Effect Size</th>
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<td>32</td>
<td>2.63</td>
<td>0.71</td>
<td>31</td>
<td>11.90</td>
<td>Significant at 0.01 Level</td>
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<tr>
<td></td>
<td>Post-Test</td>
<td>32</td>
<td>4.72</td>
<td>0.63</td>
<td>31</td>
<td>11.90</td>
<td>Significant at 0.01 Level</td>
<td>Large</td>
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<tr>
<td>Weather PVs</td>
<td>Pre-Test</td>
<td>32</td>
<td>2.59</td>
<td>0.80</td>
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<td>0.57</td>
<td>31</td>
<td>11.61</td>
<td>Significant at 0.01 Level</td>
<td>Large</td>
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</tr>
<tr>
<td>Change PVs</td>
<td>Pre-Test</td>
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<td>0.70</td>
<td>31</td>
<td>12.35</td>
<td>Significant at 0.01 Level</td>
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<td>0.60</td>
<td>31</td>
<td>12.35</td>
<td>Significant at 0.01 Level</td>
<td>Large</td>
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<td>0.75</td>
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<td>0.55</td>
<td>31</td>
<td>12.23</td>
<td>Significant at 0.01 Level</td>
<td>Large</td>
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<tr>
<td>Work PVs</td>
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<td>2.56</td>
<td>0.72</td>
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<td>12.41</td>
<td>Significant at 0.01 Level</td>
<td>2.19</td>
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<tr>
<td></td>
<td>Post-Test</td>
<td>32</td>
<td>4.53</td>
<td>0.51</td>
<td>31</td>
<td>12.41</td>
<td>Significant at 0.01 Level</td>
<td>Large</td>
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</tr>
<tr>
<td>Travel and Transportation PVs</td>
<td>Pre-Test</td>
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<td>31</td>
<td>11.56</td>
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<td>31</td>
<td>11.56</td>
<td>Significant at 0.01 Level</td>
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<td>0.55</td>
<td>31</td>
<td>11.72</td>
<td>Significant at 0.01 Level</td>
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<tr>
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<td>0.67</td>
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<td>Significant at 0.01 Level</td>
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<tr>
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<td>0.66</td>
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<td>14.43</td>
<td>Significant at 0.01 Level</td>
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<tr>
<td>Clothing and Appearance PVs</td>
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<td>0.62</td>
<td>31</td>
<td>16.70</td>
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<td>2.95</td>
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<tr>
<td></td>
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<td>0.61</td>
<td>31</td>
<td>16.70</td>
<td>Significant at 0.01 Level</td>
<td>Large</td>
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<tr>
<td>Shopping and Money PVs</td>
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<td>2.63</td>
<td>0.60</td>
<td>31</td>
<td>14.24</td>
<td>Significant at 0.01 Level</td>
<td>2.52</td>
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<tr>
<td></td>
<td>Post-Test</td>
<td>32</td>
<td>4.59</td>
<td>0.60</td>
<td>31</td>
<td>14.24</td>
<td>Significant at 0.01 Level</td>
<td>Large</td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis Seven:** There is a statistically significant difference between the mean scores of the experimental group on the pre-test and the posttest in overall PVs production in favour of the posttest.
As shown in table (11), results of paired samples t-test confirmed the seventh hypothesis since the t-value (37.67) comparing the experimental group's pre-/ posttest overall PVs production means was significant at 0.01 level. In addition, the calculated effect size value (6.66) revealed that the applied program had a remarkable positive influence on the experimental group's overall PVs production on the posttest as compared to their overall production of these PVs prior to the program implementation.

The upcoming figure highlights the experimental group's tangible improvement in overall PVs production on the posttest as compared to their overall PVs production on the pre-test:

**Figure (4)**

**Comparison of the experimental group's pre- posttest means in overall PVs production**

**Hypothesis Eight:** There are statistically significant differences between the mean scores of the experimental group on the pre-test and the posttest in producing each of the specified ten PVs categories in favour of the posttest.
Table (12)
T-test results comparing the experimental group's pre-posttest means in producing the target PVs categories

<table>
<thead>
<tr>
<th>English categories</th>
<th>PVs</th>
<th>Test</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
<th>D.F.</th>
<th>t value</th>
<th>Significance Level</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food and drinks PVs</strong></td>
<td>Pre-Test</td>
<td>32</td>
<td>2.50</td>
<td>0.57</td>
<td></td>
<td>31</td>
<td>11.12</td>
<td>Significant at 0.01 Level</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
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<td>0.63</td>
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<td>31</td>
<td>11.12</td>
<td>Significant at 0.01 Level</td>
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</tr>
<tr>
<td><strong>Weather PVs</strong></td>
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<td>0.51</td>
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<td>Large</td>
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<td>2.41</td>
<td>0.56</td>
<td></td>
<td>31</td>
<td>17.77</td>
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<td>3.14</td>
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<td></td>
<td>31</td>
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<td>0.56</td>
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<td>0.55</td>
<td></td>
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<td>16.13</td>
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<td><strong>Clothing and Appearance PVs</strong></td>
<td>Pre-Test</td>
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<td>Pre-Test</td>
<td>32</td>
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<td>0.56</td>
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</table>

To investigate the eighth hypothesis validity, paired samples t-tests were conducted to compare the pre-posttests means of the experimental group's ability to produce the target PVs categories. As demonstrated in table (12), results of the t-tests proved the experimental group's tangible growth in producing all the indicated PVs categories. Furthermore, the t-test values provided evidence to affirm the eighth hypothesis.

It should be highlighted that the effect size values of (1.96), (3.35), (2.80), (3.14), (2.56), (2.66), (2.85), (2.36), (2.64) and (2.72) for food and drinks, weather, change, education, work, travel and transportation, daily activities, health and fitness, clothing and appearance as well as shopping and money PVs respectively proved that the applied program had a large effect on the experimental group's production of the selected PVs categories. In addition, the aforementioned effect size values proved that the implemented program had its largest effect on the experimental group's students' production of weather PVs, and then comes in a descending order its large effect on their ability to produce education, daily activities, change, shopping and money, travel and transportation, clothing and appearance, work, health and fitness as well as food and drinks PVs.
To sum up, all the study eight hypotheses were confirmed. The experimental group students accomplished noticeable progress in their overall comprehension and production of English PVs as well as in their comprehension and production of the specified ten PVs categories after the program application as compared to their performance prior to the program implementation. Besides, the experimental group surpassed the control group on the PVs comprehension and production posttests.

Discussion

The posttest results proved the effectiveness of the applied program integrating FonF techniques and GL strategies in fostering the experimental group's overall PVs comprehension and production. They, also, revealed the remarkable impact of the current program on promoting the experimental group's comprehension and production of the target PVs categories. Such results support the findings of Ganji (2011) regarding the positive influence of contextualizing PVs on their acquisition. They, also, go in line with the findings of the studies conducted by Chiang (2012), Mall-Amiri, Oghyanous and Zohrehvand (2017) as well as Mohammadi and Ghaemi (2022) indicating that IE fostered EFL adult learners' PVs acquisition. Additionally, the present study findings are consistent with the results of the studies carried out by Nassaji and Tian (2010), Teng (2017) and Mohammadi and Ghaemi (2022) proving that practising FonF output tasks such as gap-filling, editing/ error correction and writing summaries enhanced EFL adult learners' PVs acquisition. Thus, the current results provide further support for the recommendation made by Birjandi, Alavi and Najafi-Karimi (2015) and Teng (2018) stressing that adult EFL students should use PVs in output communicative tasks to convey meaningful messages.

The current study results, also, conform with Mohammadi's and Ghaemi's (2022) study findings proving that combining input enhancement and output tasks was the most effective treatment to foster PVs mastery among adult EFL learners. They are, also, consistent with Yu's (2020) study findings demonstrating that practising dictogloss tasks boosted EFL adult students' productive knowledge of multi-word items. The present study findings conform with the findings of the studies conducted by Kijpoonphol and Phumchanin (2018) as well as Vazirabad and Farrokhi (2021) highlighting the effectiveness of mobile GL in promoting PVs acquisition and recall.

The present study results go in line with the findings of Büyükkarci (2010) indicating that role plays and simulations significantly promoted English majors' PVs knowledge. They are, also, consistent with the results obtained by Nosratinia, Amini and Sarabchian (2013) proving the effectiveness of making informed guesses about contextualized PVs meanings in fostering English majors' PVs acquisition. Besides, the present study results conform with the findings reached by Khodareza (2016) supporting the positive impact of collaborative tasks on PVs learning. Additionally, the current study findings are consistent with the results of Kim's (2019) study proving that combining images and video clips with written texts enhanced EFL college students' PVs learning. Furthermore, this study provides further evidence to support the role of integrating incidental learning, consciousness-raising and purposeful learning in enhancing EFL undergraduates' PVs knowledge as recently indicated by the findings of Ton's, Tran's and Dang's (2023) study.
Throughout the program application, several factors have led to the experimental group's remarkable improvement in overall PVs comprehension and production as well as their significant growth in comprehending and producing the target ten PVs categories. Among these factors was the use of expressive images and pictures in the pre-reading phase. In fact, these images and pictures aroused the students' interest, enabled them to predict the content of the short stories at hand and provided them with useful clues to guess the meanings of contextualized PVs while reading the short stories.

During reading the given short stories, typographical enhancement of contextualized PVs raised the students' awareness of the target PVs, and students were encouraged to guess the meanings of these PVs using contextual clues. In the post-reading phase, the YouTube mini-lessons taught by native English speakers enabled the experimental group students to explore more examples of contextualized PVs and understand how these PVs can be used in real life communication. Additionally, gamifying some of the FonF referential input-processing tasks and meaningful drills added the fun factor to the learning process and increased the students' engagement and participation. Besides, the immediate feedback offered after the students submitted their answers to the GL activities enabled them to monitor their progress and promoted their comprehension as well as accurate production of the target PVs.

The program varied offline FonF tasks were, also, carefully designed and implemented to foster the students' comprehension and production of target PVs. Furthermore, the FonF implicit and explicit CF techniques employed throughout the sessions, also, enabled the students to overcome their PVs errors, thus fostering their comprehension and production of the specified ten PVs categories. To clarify, whenever students made any PVs comprehension or production error, the teacher first employed the recast, metalinguistic feedback, elicitation, repetition and/or clarification request implicit CF techniques. After that, if the students were still unable to overcome their PV errors, the teacher resorted to explicit correction of these errors.

Ensuring a relaxed, friendly classroom atmosphere throughout the program sessions lowered the students' anxiety levels and fostered their motivation to actively participate in the classroom tasks. Moreover, the formative assessment activities done by the experimental group students at the end of each session enabled them to track their progress, revisit the newly acquired PVs and check their ability to comprehend and accurately produce them in given sentences. Moreover, throughout the program implementation, the teacher's role as a facilitator and a guide- who offered help and support only when needed- encouraged the students to shoulder the responsibility of their own learning, thus actively participating in the program varied PVs comprehension and production activities where explicit and implicit instruction of PVs were purposefully integrated.

As far as PVs comprehension is concerned, the experimental group achieved substantial growth in this domain due to their involvement in varied carefully planned activities that intentionally mingled FonF techniques and GL activities. Thus, during-reading the given short stories, students were implicitly taught the target typographically enhanced PVs, thus promoting their ability to notice these PVs in authentic meaningful contexts. Then, students were asked to work in pairs as they tried to deduce the PVs meanings using available contextual clues in the given short stories. After reading the short
stories, students answered MCQs on Quizizz platform where they chose the correct meanings of underlined PVs in given sentences and received immediate feedback on their answers, thus ensuring their adequate comprehension of the specified PVs. Additionally, students' comprehension of more target PVs was further promoted as their meanings were explicitly stated in carefully selected YouTube mini-lessons and as the mini-lessons native instructors highlighted authentic examples of these contextualized PVs in given sentences. Furthermore, the offline FonF input structured processing task- where the students were asked to match the given contextualized PVs with their meanings- significantly stressed their comprehension of the newly introduced PVs. Finally, the FonF gamified formative assessment task enabled the students to check their comprehension of the PVs presented in each session while maintaining their interest, involvement and motivation. In this task, students were asked to do a FonF referential input processing structured task where they read given sentences and wrote down the meanings of the underlined PVs.

To foster the experimental group's PVs production, they were required to work in competing groups of four to write summaries of the read short stories using at least five of the newly introduced PVs. After watching the YouTube mini-lessons, students were, also, encouraged to produce the newly learnt PVs as they logged into Quizizz platform and filled in the gaps in given sentences using correct PVs with the help of the provided PVs initials and meanings. After that, students were involved in dictogloss tasks where PVs were pictorially enhanced, and students' production of the target PVs was promoted as they reconstructed the audio stories, compared their versions of the stories to the original texts and corrected their errors. In addition, the wide variety of the FonF communicative tasks practised in the post-reading phase substantially enabled the students to produce the specified PVs to express themselves. These communicative tasks included writing Facebook posts, blogs, diaries entries and emails, narrating stories, doing role plays and simulation tasks as well as giving oral presentations. Besides, the self-evaluation questions answered by the students at the end of each session to formatively assess their performance in the communicative tasks promoted their PVs production. Finally, the gamified FonF formative assessment meaningful drill where the students corrected the underlined PVs errors substantially fostered their PVs accurate use.

It should be noted that the current study findings cannot be overgeneralized. This might be attributed to two major limitations. First, the study was implemented on two intact classes of English sophomores (N =64) at MSA University. Different results might be reached if the same study was applied on a larger sample or in another university. Second, the treatment was carried out over a period of ten weeks. Therefore, applying the present study over a longer period or a whole academic year might lead to different results.

Three main challenges faced the researcher while conducting this study. Firstly, selecting proper content for the current program took quite a long span of time as the researcher had to make sure that the written short stories, instructional videos and dictogloss audio texts were closely related and suitable for the students' age, culture and EFL linguistic abilities. Secondly, adequately combining FonF techniques and GL activities to form a coherent whole was a main challenge that the researcher faced until she was able to meticulously design the current program activities to foster the experimental group's PVs
comprehension and production. Thirdly, several students in the experimental group were demotivated at first to participate in the current study as they considered PVs a difficult demanding area of vocabulary. However, as they practised varied engaging FonF and GL activities during the program sessions, they became better involved and more willing to participate in the program activities.

**Conclusions**

*Based on the present study findings, these conclusions can be made:*

1. The present study provided evidence for the significant role of the proposed program combining FonF techniques and GL activities in fostering English sophomores' PVs comprehension and production.
2. Categorizing PVs according to well-defined real life themes facilitates their comprehension and production among English majors.
3. Introducing PVs in interesting short stories enables English sophomores to interpret their meanings using contextual clues.
4. Typographical enhancement of PVs makes them stand out and helps English majors better notice them in meaningful contexts.
5. Practising varied GL activities on Quizizz platform increases English sophomores' engagement and fosters their motivation while promoting their ability to comprehend and accurately use PVs.
6. Explicit teaching of target contextualized PVs in short YouTube mini-lessons raises the students' awareness of these PVs and enhances their ability to comprehend them.
7. Presenting referential FonF input-processing structured tasks in a GL format makes these tasks more engaging and more effective in promoting English majors' comprehension of target PVs.
8. FonF meaningful drills are more interesting when they implemented in a GL format. Additionally, they can tangibly promote English sophomores' ability to produce PVs in given sentences.
9. Listening to and reconstructing short stories in dictogloss tasks enables English majors to naturally produce target PVs to convey meaning.
10. Pictorial enhancement of target PVs in dictogloss tasks develops English sophomores' ability to successfully interpret and retrieve these PVs.
11. Involving English sophomores in varied communicative tasks helps them to naturally and fluently produce the specified PVs for authentic purposes.
12. GL activities create a fun, anxiety-free environment while promoting the students' ability to comprehend and produce the target PVs.
13. Careful application of FonF implicit and explicit CF techniques helps English majors overcome their errors and facilitates their PVs comprehension as well as production.
14. Combining online and offline FonF techniques adds richness and diversity to the classroom atmosphere while enhancing English sophomores' comprehension and production of target PVs.

**Recommendations**

*Based on the present study results, the following recommendations are made:*
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- **EFL curriculum designers should:**
  1. Meticulously choose written, audio and audio-visual texts where PVs are naturally contextualized to convey meaningful messages; and
  2. Design varied programs integrating FonF techniques and GL activities to foster lexical chunks acquisition among EFL undergraduates.

- **EFL university level instructors should:**
  1. Be offered enough training in how to design and implement GL activities on varied platforms to enhance EFL skills among undergraduates;
  2. Employ a combination of visual, auditory and pictorial IE techniques to foster PVs noticing among EFL undergraduates;
  3. Mingle IE and IF to promote EFL undergraduates' acquisition of target vocabulary items in general and PVs in particular;
  4. Use carefully designed structured input processing tasks, meaningful drills and authentic communicative tasks to develop EFL undergraduates' understanding and use of target PVs;
  5. Integrate implicit and explicit instruction of target PVs to enhance their acquisition among EFL undergraduates; and
  6. Employ varied implicit and explicit CF techniques to help English majors overcome their PVs comprehension and production errors;

- **EFL learners should:**
  1. Practise diverse GL activities to foster their PVs learning while increasing their engagement, motivation and participation levels;
  2. Use contextual clues to successfully interpret target PVs;
  3. Practice varied online and offline referential input processing tasks to foster their PVs interpretation ability; and
  4. Be encouraged to produce target PVs in online and offline meaningful drills and authentic communicative tasks.

**Suggested studies**

*The following research areas are worth investigating:*

1. Comparing the effectiveness of varied GL platforms such as Quizizz, Quizlet, Kahoot, Padlet and Socrative SRS in enhancing EFL university level and secondary stage students' PVs acquisition;

2. The impact of mingling FonF techniques and GL activities on promoting collocations and idioms acquisition among Egyptian EFL undergraduates;

3. The effect of GL activities on enhancing Egyptian EFL learners' reading and listening comprehension skills in varied educational settings; and

4. The role of combining FonF techniques and GL activities in fostering Egyptian EFL learners' grammatical achievement and competence.
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