

Learners' Perceptions of a Creative Language Game-Based Program

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This article is based on the data collected from a language program designed to enable undergraduates to use and improve their English vocabulary and communication skills while playing four language games creatively developed and implemented in a non-formal learning context. A total of 111 low-proficiency ESL learners participated in the program. The participants were asked to complete a questionnaire that contained items measuring their perceptions towards the effectiveness of the program and how it influenced their affective and cognitive personal attributes. Descriptive analysis of the data gathered revealed that a high percentage of the participants enjoyed the program and found it to be effective in enhancing their language skills. The results also showed that the language game-based program managed to boost the participants' interest, motivation and confidence to communicate in English, and that it made them more engaged in learning and thinking critically.

Key words: *Confidence, creative, communication skills, games, motivation, non-formal context, vocabulary.*

Introduction

The World Economic Forum (WEF), in its report *The Future of Jobs* (2016), listed nine sets of work-related twenty first-century skills. According to the report, the top three skill sets that are forecast to be in high demand by 2020 are problem-solving, critical thinking and communication skills.

Gill (2017) reports that it is incumbent for graduates to possess better communication and critical thinking skills to meet future job requirements. However, concerns have been raised for almost two decades about the poor critical thinking and communication skills of



Malaysian graduates. If these problems persist, how prepared are young Malaysians to face our rapidly changing world?

A possible explanation for the graduates' failure to communicate well in English and exercise their critical thinking is that they might not have had sufficient practice and exposure to English in a conducive learning environment, or might not have grasped an adequate amount of the target vocabulary to express themselves. David Wilkins, the famous British linguist, long ago emphasised the importance of mastering vocabulary to ensure success in communication when he wrote, 'Without grammar very little can be conveyed; without vocabulary nothing can be conveyed' (Wilkins, 1972).

Literature Review

Vocabulary learning

Vocabulary acquisition is crucial to success in language learning. Nation (1994), a renowned linguist and researcher, states that 'a rich vocabulary makes the skills of listening, speaking, reading, and writing easier to perform'. Research indicates that pre-varsity students need to have at least 3,000 word families to understand authentic texts, and 10,000 word families when beginning tertiary studies, to access challenging reading materials such as university textbooks (Hazenberg & Hulstijn, 1996; Laufer, 1992). According to Laufer (1992), as cited in Hunt and Beglar (1998), having a vocabulary size of 3,000 words would help undergraduates to read effectively, while a vocabulary size of 5,000 words would indicate academic success. Hever (1997), of Göteborg University, Sweden, contends that a second or foreign language learner should have acquired at least 5,000 to 7,000 words prior to entering university.

The literature on Malaysian undergraduates' vocabulary indicates that Malaysian students have limited English vocabulary. Many Malaysian undergraduates were reported to have achieved a level of only 2,000 to 3000 words on the vocabulary tests administered at local institutions (Harji, Balakrishnan, Bhar & Lechumanan, 2015; Ibrahim, Sarudin & Muhamad, 2016; Kaur, 2013; Lateh, Shamsudin & Abdul Raof, 2018; Lim, 2014; Mokhtar & Mohd Rawian, 2016). A recent study by Zuriyani and Mohamed Ismail (2019) found that majority of Malaysian students taking a course in English for Occupational Purpose (EOP) at a local university only had a 2,000 word vocabulary size. This is especially worrying as Malaysian undergraduates have had at least 11 years of English language classes prior to enrolling in a degree program at the university.

Learning Vocabulary Through Games

One way to provide interesting learning environment that will enhance learners' vocabulary mastery is to use language games. Ilhem (2015) mentions that the use of games in teaching helps learners to acquire vocabulary more quickly and easily. According to Njoroge, Ndung'u and Ghatigia (2013), teachers can use crossword puzzles as a strategy for learners to acquire specific types of vocabulary. Many researchers (Anyaegebu et al., 2012; Perveen, Asif, Mehmood, Kamal Khan & Iqbal, 2016) have demonstrated that using games in the classroom or in a formal setting can successfully enhance language learning.

Creative Teachers

Teaching in the twenty-first century is a more challenging job than ever before, due to the diverse demands placed on teachers and learners. Teachers have to be more creative in their teaching to ensure students' success. They need to vary their teaching styles and materials. According to Smith, Nerantzi and Middleton (2014), students in higher education enjoy the learning process more when their teachers are confident about experimenting with new teaching methods – in other words, teachers need to be creative when it comes to adopting and adapting their teaching methods and materials.

Creative teachers are able to customise lessons using textbooks and any available materials, including those they may have developed themselves, to match their students' interests. Such teachers must be able to employ a variety of activities in a learning context because creativity means using a combination of styles (Richards, 2013).

Learning in a Non-formal Context

Learning in a non-formal setting is claimed to be equally effective for language learning. UNESCO defines non-formal learning as a systematic educational activity outside the formal system that meets its learning purposes (Perin & Brčić, 2014). Learning in such a context can be effective if it is planned and carried out systematically. In his study of the use of Facebook to enhance vocabulary learning, Al Mubarak (2017) found that students liked to complete activities on the Facebook (i.e. outside the classroom) because they had more fun learning and felt less stressed.

Since research has indicated that the employment of games in the classroom context can enhance vocabulary learning (Akdogan, 2017), it is logical to assume or predict that the use of games outside the classroom context (i.e. in a non-formal setting) will equally, if not more, effectively enhance students' vocabulary development.

To date, though, there has not been much research done on the learning of vocabulary using language games in a non-formal setting. This study was therefore conducted to examine the effectiveness of a language game-based program implemented in a non-formal learning context. The program was designed to enrich learners' mastery of vocabulary and further develop their affective and cognitive attributes or skills.

The study attempted to address the following research questions:

- 1 Do students who participate in the language game-based program conducted in a non-formal setting find the program effective for enhancing their language learning?
- 2 What aspects of their personal attributes do the students think are positively influenced by the program?

Methodology

Research Design and Sample

This survey study was based on a game-based learning program carried out in a non-formal learning context. The subjects in this study were 111 undergraduates from various degree programs (24 males and 87 females) from a Malaysian public university. The students were among 580 students who took English for Academic Communication (EAC), a foundation English course that was made compulsory for them as they were categorised as low-proficiency English as a second language (ESL) learners. These students had only managed to obtain Band 1 or Band 2 in the Malaysian University English Examination (MUET) prior to entering the university. Among the objectives of an EAC course is reinforcement of students' vocabulary by consistently presenting them with ample vocabulary from the general and academic word lists throughout the course. The words from the 2000-word level were selected from the General Word List as the course is a foundation course. Words were also chosen from the Academic Word List (AWL) to prepare students for their studies. The target words were presented to students via a module with 13 units of exercises. Each unit has 50 target words, 40 from the GWL and 10 from the AWL. At least five exercises using the target words are presented in each unit.

Language Program

In addition to attending classes for the foundation course, EAC students were required to join a two-hour program named English on Demand (EOD). The program, designed to help students further improve their language skills – particularly communication skills – was conducted at the weekend outside the classroom. There were five EOD programs and EAC students were allowed to choose to join only one program based on their availability.

One of the five programs was EOD2, also known as Battle of Words. It was a language game-based program that focused on vocabulary on vocabulary enrichment and usage. The 111 students in this study joined EOD2 program, which was held at the university gymnasium. Prior to attending the EOD2 program, the students had covered four units of the target word list in their course module. The students were informed that the activities in EOD2 were vocabulary language games and that the words to be used in the games were from the four units of their module.

Games

At the start of the EOD2 program, the students were divided into groups of 10. The four games that were creatively employed in the EOD2 program were Word Families, Snakes and Ladders, Crossword Puzzle and Word Search Puzzle.

Word Families was designed to enrich students' vocabulary knowledge and usage by enabling them to recognise and use words belonging to a particular word family. The game tested the students' ability to identify the part of speech of each of the words given in a list and their ability to use the relevant words to carry out their sentence-completion task. At the beginning of the game, each group of students was given two sets of worksheets, each of which focused on a particular word family. In other words, each group had to work on two word families. Each worksheet contained five sentences based on one word family. The students had to complete all sentences with the correct words associated with the word family assigned to them.

To add more fun to learning through this game, another challenge was creatively introduced. Each group was asked to form a line and be prepared to take part in a race that would take about 15 minutes. Members of each group took turns to run to the seats in the gymnasium to look for pieces of paper with words written on them that could assist them in their sentence-completion task. The seats followed the stadium seating arrangement and some words were purposely hidden behind the seats further towards the back to add difficulty to the task.

Once each member of the group had managed to find the hidden word, they had to run back to their group, seated in the middle of the gymnasium, to paste the word on the group's worksheet. Then the baton was passed to the next member of the group, who ran to the seats to search for another word that would help to complete another sentence on the worksheet. The first team that managed to get all the answers correct for their sentence-completion task within the shortest period of time was declared the winner.

The second game was the Snakes and Ladders board game, which was designed to fulfil three objectives: (1) to allow students to recall the synonyms and antonyms of a list of words

selected from their vocabulary syllabus; (2) to enable students to identify the spelling of the target words more precisely; and (3) to instil interest in students to learn vocabulary through games and motivate them to become more committed to upgrading their vocabulary level.

To achieve the stated objectives, four creative ideas were injected into the game. First, the size of the board game was enlarged. The game was printed on A3 size paper so everybody in the group could see each element clearly. Second, the squares on the board game were filled with 25 words for the students to guess their synonyms or antonyms. Interestingly, some squares on the board game had prompts that asked the players to shout out the correct answers, thus giving them practice with pronunciation. This addition helped to make the students feel excited and encouraged them to compete to provide their answers. Third, additional symbols like ‘thunder’ and ‘Go back to box number ___’ were used to make the game more interesting; the thunder symbol was used to freeze the player’s move while the ‘Go back to box number ___’ phrase was used to signal a penalty.

The act of freezing a player’s move or awarding them a penalty resulted in having several players land on the same square on the board game. When this happened, the players had to face more challenges because they had to think harder about the possible synonyms or antonyms of the word written on the square that had not yet been mentioned by their competitors who had landed on the same square. The group with the highest number of members completing the board game successfully within the allotted time was announced the winner.

The third and fourth games used in this EOD2 program were Crossword Puzzle and Word Search Puzzle, which were created using free online resources. The skills emphasised in these two final games were reading aloud, pronunciation, spelling and vocabulary check.

In the Crossword Puzzle game, students were required to correctly guess, spell and write 10 words in the white squares placed horizontally or vertically in the puzzle, based on some clues. The diagram of the puzzle, which was printed on an A3 paper, was pasted on the wall facing the students, who were asked to stand in a line. Questions were creatively used as clues to help students complete the puzzle. The first set consisted of six questions, which led to the answers that enabled students to write the words ‘across’ the puzzle; the second set comprised four questions that gave clues to the words to be written ‘down’ the puzzle. Each question asked for a different piece of information, such as the definition of a word, the synonym or antonym of a word, the different part of speech or the grammatical category of a word. To ensure that the students use a variety of language skills in this game, each was required to take it in turn to perform three tasks: (1) read out loud a question printed on a strip of paper to their peer; (2) provide an answer to a question read; and (3) write the correct answer in the white squares of the puzzle pasted on the wall. A vocabulary list was pasted

next to the puzzle to help very weak students with the spelling of the words that they managed to guess but did not know how to spell so they could complete the puzzle.

The last game was the Word Search Puzzle, which required students to locate and mark 10 words of different parts of speech in the grids of the puzzle. Using their spelling and word-recognition skills, students were expected to find the hidden words and circle them on the word grid. The puzzle was printed on an A3 paper and pasted on the wall in the gymnasium. To ensure the active participation of the students, they were asked to line up and take turns to read out loud a word printed on a piece of paper to a friend waiting in line, who then had to run to the puzzle and circle the word on the grid. This game therefore required students to be physically and mentally active. Involvement in the game not only helped them to review their knowledge of vocabulary but also improved their word-recognition ability while providing them with pronunciation and listening practice.

Instrument, Data-collection Procedure and Analysis

Upon completion of the EOD2 program, the students were asked to complete an online survey consisting of 27 five-point Likert scale items (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree). The items were developed by the researchers based on literature related to vocabulary learning, game-based activity and learning conducted outside the classroom. The data were analysed using SPSS statistical software. Descriptive statistics such as mean (M), standard deviation (SD), alpha coefficient and percentage (%) were computed.

Findings

Survey Reliability

The reliability test done on the data yielded a very high reliability coefficient ($\alpha = 0.94$). This indicated that the 27-item survey was a highly reliable instrument.

Students' Perception of the Effectiveness of the Program

To determine the effectiveness of the language game-based program, descriptive statistics such as mean, standard deviation and percentage were used to examine the nature of students' responses (i.e. positive or negative) to each of the survey items. The analysis performed on the data for the 27 items in the survey revealed that all items had a high mean, with a mean scale score of 4.3. The computed means for the scale items were at the high end of the Likert scale, ranging from 4.0 to 4.54; this indicates that the students agreed with the statement given in each item. These high means showed that the students were in favour of the language game-based program.

Further examination of the data helped the researchers to infer that the program was effective. For example, the students' responses to six items in the survey (items 1, 8, 14, 16, 17 and 27) can be used as a reflection of the effectiveness of the program. All the students agreed that the program should be continued as it had benefited them a lot (responses to item 17); most students (97.3%) agreed that they had really enjoyed taking part in the program (responses to item 1); and 97.3 per cent found the program to be effective in enhancing their English language skills (responses to item 16). Some 95.5 per cent of the students stated that they would not hesitate to join any similar language game-based program in the future (responses to item 14); 94.6 per cent agreed that the program helped to increase their vocabulary (responses to item 8); and 93.7 per cent believed that the program helped them overcome their communication difficulties (responses to item 27).

Students' Perceptions of the Impact of the Program on Their Affective and Cognitive Attributes

Data analysis also enabled the researchers to examine the students' perception about how the program influenced their personal attributes. The results of the analysis are shown in Table 1.

As shown in the table, some of the affective attributes positively affected by the programs were students' motivation to learn English, their interest in learning, their competitive spirit and their confidence. Some 98.2 per cent agreed that they became more motivated to learn English after participating in the program (responses to item 2); 100 per cent agreed that learning outside the classroom (i.e. the non-formal setting of the program) had increased their interest in learning English; and 97.3 per cent agreed that the program activities enhanced their competitive spirit. Three of the survey items focused on students' confidence and a high percentage of the students responded positively to each of the items. For example, 95.5 per cent agreed that the program had helped to boost their confidence levels regarding speaking in English (responses to item 3); 94.6 per cent agreed that they felt more confident about participating in their future English class activities (responses to item 15); and 93.7 per cent agreed that the program activities had enhanced their confidence about communicating in English (responses to item 25).

The students' responses to items related to their cognitive attributes were also positive. Some 98.2 per cent of the students agreed that the language games introduced in the program made them more engaged in their English language learning process (responses to item 6); and 94.6 per cent agreed that the program activities made them exercise their critical thinking skills (responses to item 9).

Table 1: Students' perception of the impact of the program on their affective and cognitive attributes

Statement	Mean (SD)	Responses (%)				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
S2. I am more motivated to learn English.	4.38 (.53)	-	-	1.8	57.7	40.5
S3. This program increased my confidence.	4.35 (.57)	-	-	4.5	55.9	39.6
S4. Learning out of the classroom increased my interest to learn English.	4.52 (.50)				47.7	52.3
S5. The activities increased my competitive spirit.	4.36 (.61)	0.9	-	1.8	56.8	40.5
S6. Language games increased my engagement in English language learning process.	4.39 (.53)	-	-	1.8	56.8	41.4
S7. I am more confident to ask questions.	4.19 (.63)	-	-	11.7	57.7	30.6
S9. The activities are challenging because they make me think critically.	4.25 (.61)	1.8	-	3.6	62.2	32.4
S15. I feel more confident to participate in my English language class.	4.23 (.53)	-	-	5.4	66.7	27.9
S16. This program is effective in increasing my English language skills.	4.36 (.57)	-	0.9	1.8	57.7	39.6
S24. The Snakes and Ladders activity made me think critically.	4.31 (.58)	-	0.9	3.6	59.5	36.0
S26. The activities increased my confidence to communicate in English.	4.18 (.54)	-	-	7.2	67.6	25.2

Discussion

The findings of this study should be interpreted with caution for two reasons. First, a convenience sample was used, meaning that it was not randomly selected. The findings should therefore not be generalised to the larger target population. Second, the findings of this study were based purely on students' perceptions, which may not accurately reflect their true ability or actual performance.

The authors of this article believe the study provides important insights into how to create and implement language games that will be useful to language teachers.

In general, the results showed that a majority of the students involved in the language game-based program found it effective. The students reported that they had enjoyed themselves participating in the program and found it to have a positive impact on their vocabulary learning, English communication skills and also their affective and cognitive attributes. The students also seemed to like the games used, stating that they were fun, interesting and engaging; in turn, this helped to enhance their interest and motivation to learn and use English vocabulary. In addition, the students perceived the games to be mind-challenging and said their active involvement in the games forced them to exercise their critical thinking skills.

Most of the findings of the present study seem to be in line with those of studies on using games for teaching and learning vocabulary in classroom context (Keshta & Al-Faleet, 2013; Njoroge, Ndung & Gathigia, 2013; Perveen, Muhammad Asif, Mehmood, Khan & Iqbal, 2016; Prasetyo, Fardhani & Ariyanto, 2016; Vossoughi & Zargar, 2009). The perceptions of the students participating in the language game-based program reported in this study were similar to the feedback given by English language teachers in a study conducted by Perveen and colleagues (2016) on the effectiveness of using games for teaching vocabulary in Pakistani classrooms. The teachers in this study also reported that the use of games contributed to vocabulary increment, and to an increase in motivation and interest in learning English, while helping to heighten the fun and relaxation experienced by students participating in the games. However, concerns were raised over the noise and disturbance of classroom discipline, which can be addressed if the teaching and learning take place outside the classroom.

Conducting language game-based activities in a non-formal context certainly makes it easier for teachers to add the competitive elements that may require students to speak more loudly than usual and engage in extra physical movement. On top of the basic idea of enriching students' vocabulary through games, each of the games used in the program designed by the present teachers-cum-researchers was injected with a little competition, with a time limit that required students to race against the clock. The race also made it possible for teachers to



require students to work and communicate in their own small groups while competing with other groups to win the race. Playing in teams made the students more excited and supportive of each other. It also provided students with more opportunities to communicate with one another with a purpose or objective in mind, and helped them to develop self-confidence. Further, working in groups benefited the students by equipping them with the basic skills for twenty-first century learning, and they were able to share the experiences and feel secure working in groups (Assalihee, Boonsuk, Bakoh & Sano, 2019).

Competition gets students out of their seats to win the game. For example, in the Word Family game, students had to leave their group to run and search for words hidden at the back of the seats in the gymnasium. In the Snakes and Ladders game, students took turns to stand and throw a gigantic dice high up to determine the number of steps or moves they needed to make on the board game. In the puzzle games, students also took turns to run to the facilitators to get a strip of paper containing a clue or the target word and read it out loud to a waiting member of their team, who would run to the puzzle pasted on the wall and write the answer. This competitive spirit and the physical movement helped the students to remain alert and stimulated. Ara (2009) claims students have difficulties remembering vocabulary in a short period of time, and that physical movement can help students to be physically and cognitively active. Moreover, taking an active part in a physical movement activity meant the students didn't have a chance to be bored or impatient – indeed, it guaranteed the students' participation in and contribution to the game (Bakhsh, 2016).

Competition is an important aspect of playing a game; it makes games fun because it adds excitement and entertainment to language learning, thus helping to motivate students (Rooswinkel, 2014). Cagiltay and colleagues (2015) cite several works that list the benefits of competition in language games. Competition is claimed to bring excitement and draw students' attention in a structured learning activity (Cheng et. al, 2009); it is also said to bring extrinsic motivation to students, which may drive them to try harder with the tasks (Van Eck & Dempsey, 2002). Competition has been shown to improve learning and develop cooperation among team members (Battisti et al., 2011). Lawrence (2004) and Fulu (2007), cited by Cantador and Conde (n.d.) believe competition enhances active learning; they state that it can lead competitors to develop higher motivation and self-esteem. Conducting a competitive language game activity is a creative and brilliant idea for the teachers to scaffold the students to recall the vocabulary and the parts of speech they have learnt before in class in an exciting new learning environment.

Apart from enabling teachers to get students to use light physical movements, using language games in a non-formal context allows teachers to create an exciting learning environment through the use of different seating arrangement for the students (Sigurðardóttir, 2010). For example, students can be asked to sit in a circle (as in the board game session) or line up in

rows to participate in a game (as in the crossword and word search puzzle games). Clearly, the non-formal learning context make it possible for teachers to use a variety of teaching and learning strategies to encourage active learning to take place.

However, the main contributor to the students' success in learning through language games in a non-formal context is the teachers themselves – the agents of change. To make a difference, teachers need to be knowledgeable, creative and innovative. That is extremely vital as the roles and functions of teachers in the twenty-first century must be reconstructed. Teachers need to be more supportive and able to provide a sociable environment for learning to take place (Assalihee, Boonsuk, Bakoh, & Sano, 2019). Contemporary teachers should realise that the existing conventional English pedagogies that highlight rote learning, 'chalk and talk' and teacher-centred education are no longer relevant to learners of English.

Conclusion

The language game-based program helped researchers to gather meaningful and useful data, which provided support for the employment of games in fostering students' English vocabulary use and enhancement. It is clear that the success of this program depended a lot on the careful plan made and on the creativity of the language instructors-cum-researchers in adopting and adapting available games to suit the needs and level of students, and in considering ways to help students further develop important IR4.0 skills, such as communication and critical thinking skills. Obviously, the language instructors of the program on which this study was based did a good job and have shown that learning in a non-formal context that is outside the normal classroom can be successful and meaningful if the learning process is carefully planned and properly organised. They have demonstrated that language instructors have to be creative, proactive, knowledgeable and skilful in using innovative teaching methods to ensure that quality learning takes place.

Since the data only covered students' perceptions, future researchers could usefully replicate this study and determine a mechanism to gather data involving students' actual language performance. In relation to this, a quasi-experimental research design is recommended as an appropriate method to adopt so that the effectiveness of a language-based program or activities can be determined using data that captures students' perception and their improved performance after joining the program.



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