Chapter 9

Utilizing GoPic with QR Code for Mastery of Vocabulary

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ABSTRACT
In language learning, vocabulary mastery is paramount yet becomes an arduous task particularly for Malaysian students. Prior to this, the development and integration of information and communication technology (ICT) in 21st-century learning is crucial in teachers’ pedagogical skills and students’ knowledge. Thus, it has resulted in student-centred strategies; replacing traditional teacher-centred and rote memorization approach. This action research of utilizing GoPic with QR Code investigates the importance of enhancing students’ language experience in their mastery of vocabulary. The term ‘GoPic with QR Code’ is generated from the fusion concept of using ‘BINGO’ word game and a total of twenty-five picture cards to match the words using QR code for the intervention. The correspondents for this research comprise of a total of sixty-four mixed-ability primary school students, that is fifty-eight Year 1 students from two sub-urban national primary schools in Selangor and six Year 5 students from one rural national primary school, also classified as low enrolment school in Sabah. Pre and post-test were implemented as the instrument in data collection. The central idea of the research came from finding the ‘right’ strategy to suit the students’ needs in their mastery of vocabulary. The component of vocabulary that would be used and assessed in this intervention are concrete nouns which is planned to help students in their mastery of vocabulary from the constructivist point of view. It highlights the concept of 21st-century as well as game-based learning whereby procedures are straightforward; intending to create meaningful, fun and active learning for students in the classroom. The findings concluded that by utilizing GoPic with QR code, students revealed significant improvement in their English language vocabulary.

Key Words: GoPic, QR Code, vocabulary mastery, 21st-century learning, game-based learning.
1. INTRODUCTION

The Malaysia Education Blueprint (2013) propounded that 21st century learning should empower students to learn in technological milieus thus, adhering to the aspiration of the National Philosophy of Education to produce holistic individuals. As such, in line with the advancement brought by 4th Industrial Revolution (4IR) in education, cybergogy encourages teaching and learning practices in a virtual environment. Here, the inception of century learning is thrusting educators to diversify classroom teaching pedagogies as ‘technology changes attitude of millennial and Gen Z students.’ (Muralidhar, 2019).

Despite this, Hussin, Nimehchisalem, Kalajahi & Yunus (2016) revealed in their study that English language learners in Malaysia usually struggle in acquiring language skills due to limited knowledge in vocabulary. Thus, this research is based on the constructivist learning philosophy that learning is not a fix process but develops as students try to make sense of their experiences. Therefore, it is the researchers’ utmost concern to improve the students’ vocabulary; incorporating 21st century technology skills by utilizing GoPic with QR Code for their mastery of vocabulary.

2. PROBLEM STATEMENT

The Ministry of Education in Malaysia has introduced various programmes to enhance English language acquisition among Malaysian students. In conjunction with this, Mashhadi and Jamalifar (2015) highlighted that vocabulary is a major component of language proficiency, providing solid foundation on how well learners speak, listen, read and write. However, L2 learners experience difficulties with insufficient lexical knowledge and right strategies in attaining new vocabularies.

Regrettably, the various factors discovered through previous studies that inhibit the mastery of vocabulary were ‘socio-economic background, limited exposure to English speaking environment, lack of interesting learning materials, low motivation, lacking opportunity to use it in meaningful contexts as well as students’ perceptions and attitudes toward the learning process’ (Yunus & Abdullah 2011 & Mashhadi & Jamalifar 2015).

Therefore, this planned intervention is expected to be approachable and at a level that permits everyone to experience accomplishment in vocabulary learning, also supported by Silver & Perini (2010). With this notion in mind, GoPic with QR Code is selected to determine its effectiveness in students’ mastery of vocabulary in lexical knowledge in three different primary schools in Selangor and Sabah.

3. RESEARCH OBJECTIVE

The main objective of this study is to determine the effectiveness of GoPic with QR Code for the mastery of vocabulary for primary school students.
4. LITERATURE REVIEW

4.1. Novelty
GoPic with QR code is a unique vocabulary learning game generated from the fusion concept of ‘BINGO’ word game with twenty-five picture cards to match the words using QR code. It is the blending of conventional and modern suite of powerful tools to enhance students’ mastery of vocabulary to the next level. Parallel to this, Huah and Jarret (2014) consolidated that playing educational-based games amplify spirit of novelty and learner involvement. It allows students to ‘study smarter’ through active and meaningful game-based learning rather than ‘study harder’ through rote memorization. This innovation redefines how teaching and learning can take place while providing accessibility to occur anywhere; be it urban or rural areas.

It also demonstrates early literacy skills to gradual independent reading whereby it can be a learning supplement for individual, pairs, small groups or an entire class. The usage of QR Codes provides technological support as students get instantaneous responses from their peers for answers as reviewed by Maslawati (2015) and Yunus (2018). Hence, this innovation complements our Malaysia’s education system to gear students to be student-centred and autonomous which is vital in their mastery of vocabulary.

4.2. Benefits to The User
GoPic with QR code is beneficial to learners because it encourages them to learn the target language easily especially in vocabulary acquisition. Interestingly, ‘game-based learning creates relaxation, fun and assist effortless memorization for mastery of vocabulary’ Tunchalearnpanih (2012). This highly innovative potential tool promotes active and independent learning where learners can decide the pace of learning to accommodate to their proficiency levels and learning styles giving them the autonomy to cater for their learning objectives; resulting in personalize learning. It can also boost their confidence, self-efficacy, motivating them to immerse themselves in the game; altogether mastering vocabulary upon their accomplishments. Furthermore, it stimulates interest, attention and sustain students’ concentration in promoting teamwork and communication; ensuring meaningful learning in a real-life context.

Likewise, teachers can also benefit from the usage of GoPic with QR code as their teaching media while assisting them to make classroom activities fun and engaging. It is user-friendly, acts as a supplementary teaching tool for teachers to improve students’ proficiency in vocabulary; facilitating their language development leading to academic improvement while emphasizing on student-centered learning.

4.3 Benefits to The Society
The Ministry of Education is aware that both teachers and students need to adapt and adopt to the rapid changes with the implementation of 21st century technology learning which influences the educational realm. This game will be an asset for both teachers and parents to ensure learners can learn and self-correct themselves with the help of QR
code technology. It is an ideal educational tool due to its prominent features illustrating mobility and portability on top of being user-friendly, attractive visual aid, cost-effective, flexible and suitability for all ages and levels of proficiency. The incorporation of mobile device in playing the game enables it to be applied in any setting of place and time; not limited only within the classroom. It is hoped that the language learning environment is created to promote language literacy and proficiency besides developing positive perceptions in learning English within the society or community.

GoPic with QR code certainly has an impact on pedagogy’s development by recognizing the importance of mastery of vocabulary in the context of acknowledging English textbook authors, syllabus designers and curriculum developers. It proposes that ‘word learning should be presented in meaningful context with stimulating visual cues’ (Mashhadi & Jamalifar 2015). In light of this, Letchumanan et al (2015) suggested that policy makers or curriculum developers should include language related games in the English language textbooks as a precursor to fun and effortless vocabulary mastery.

4.4. Commercialization Potential

As for the Malaysian education system, educators can collaborate with the application developers to create suitable vocabulary study template sets on GoPic board with predefined QR codes aligned to the new Common European Framework (CEFR) standards for schools. These CEFR related sets contribute to vocabulary plus four language learning skills, completing coverage for the current English syllabus. Educators and learners nationwide can purchase a full version of above at a minimal fee consisting of a GoPic word board with predefined QR codes and colorful picture cards. The users can then learn and self-correct themselves by scanning the QR code with its full version application on the GoPic board without hassle of pop-up advertisements.

‘According to a survey, 94% of students wish to use cellphone in classes for educational purposes. With these stats in record, the fact that students learn better with interactive digital attempts is significant’ (Muralidhar, 2019). Evidently, GoPic with QR Code will be well acknowledged, being incorporated with technological advancement in the educational market for learners in urban and rural areas to learn vocabulary and other English language skills interactively since it is accessible to all even in the absence of internet connection. It integrates with the 21st century learning emphasizing on technological support and collaboration among the learning community as stated by Yunus et al. (2013).

5. METHODOLOGY

In this action research, the researchers chose to use Kemmis & McTaggart model (as cited in Altricher et al, 2007). It is a spiral model comprising of four steps: planning, acting, observing and reflecting.
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**Figure 1: Action Stage**

**Figure 2: GoPic board and picture cards with predefined QR codes on them**

**Figure 3: Students learning vocabulary through the utilization of GoPic with QR Code**

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**Intervention Process**

1. Placing GoPic board on the blackboard or whiteboard.
2. Students queue up according to groups (mixed ability) in rows.
3. Picture cards given randomly to each student.
4. Placement of picture cards to the words (GoPic board).
5. Scan QR code for answer.
6. Steps 4-5 repeated until a group able to form a straight line on the board - winner.
7. Steps 4-6 will be repeated once more. (Picture cards will be reshuffled and given to each student).

*Repeated again the following week (Steps 1-7).*
6. RESULTS & DISCUSSION

Based on Tables 1, 2 and 3, it is concluded that the correspondents from three respective primary schools revealed significant improvements in their mastery of vocabulary after the intervention. There were positive increment results in the post-test scores compared to the pre-test scores.

7. CONCLUSION AND RECOMMENDATION

GoPic with QR code is undoubtedly a springboard for English teachers towards a more student-centred teaching and learning process; adhering to students’ learning pace in the mastery of vocabulary. Overall, students in this study have performed resounding achievements through using of GoPic with QR code in their mastery of vocabulary. Following are the researchers’ recommendations for future studies which can be done on this highly potential innovative tool of GoPic with QR code:

a. Utilising GoPic with QR code with secondary or even tertiary level students for mastery of vocabulary

b. Utilising GoPic with QR code for developing the four main English language skills (listening, speaking, reading and writing)
c. Utilising GoPic with QR code in developing students’ critical thinking skill

d. Utilising GoPic with QR code in augmented reality mode

REFERENCES


