

The 11th International, Invention, Innovation & Design 2022

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Ushering in the Age of Endemic

THE 11TH INTERNATIONAL INNOVATION, INVENTION & DESIGN COMPETITION INDES 2022

EXTENDED ABSTRACTS BOOK



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THE EFFECTIVENESS OF IMPLEMENTING LET'S JIZZLE! INNOVATION TOWARDS ENGLISH VOCABULARY LEARNING

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ABSTRACT

The use of games in teaching especially in English Language Teaching (ELT) has become a norm among educators globally. The difficulties students' face in acquiring spellings and definition of words, extensive use of mother tongue, lack of dictionary skills and the pedagogical negligence in acknowledging students' learning abilities in acquiring vocabulary have led to the innovation of Let's Jizzle! Hence, this paper describes the process of designing and developing Let's Jizzle! as well as its effectiveness in teaching and learning vocabulary for both primary and secondary school learners of lower to intermediate proficiency. Game Based Learning (GBL) and differentiated instructions theory are the two main underpinning approaches in this innovation. Design and Development Research (DDR) was employed as the research design and ADDIE model was the research framework in developing Let's Jizzle!. The significant impacts towards vocabulary learning were proven through pre and post-tests. Let's Jizzle! benefited the students to comprehend the vocabulary learnt as well as applying it in context besides acting as a teaching aid among teachers. It is the first jigsaw puzzle designed based on 21st-century learning and CEFR textbooks for vocabulary learning especially for A2-B2 achievers. Let's Jizzle! has high commercialisation potential.

Keywords: jigsaw puzzle, vocabulary, GBL, differentiated instructions, DDR, ADDIE, ELT

1. INTRODUCTION

Vocabulary is seen as an integral part of language learning since it is a crucial element in acquiring all four language skills. Based on the descriptors in the latest CEFR, students are required to acquire the targeted vocabulary in order to read and comprehend a reading passage in their textbook. However, it was apparent that the students were disengaged and unable to recall the spelling and meaning of the words they had learnt. Game-based learning (GBL) has been practised in the classroom by many educators for ages. Game-based learning is derived from Piaget's cognitive development theory where the students process new information through assimilation and adaptation. The process of assimilation and adaptation can be forged through play as Piaget (1962) described play as an integral element for students' stages of cognitive development. It is aligned with the twenty-first century learning approach where it stimulates students' creativity, critical thinking, problem solving and collaborative skills.

Let's Jizzle! is a toolkit of vocabulary games that has been adapted from jigsaw puzzles to accommodate and facilitate students in learning vocabulary. John Spilsbury in 1762 was the person to produce the first jigsaw puzzle (Lau et.al., 2014). Let's Jizzle! focuses on the words from the latest CEFR textbook of Year 6 to Form 1. Since the context of the book is foreign to



our local Malaysian students, the words in the textbooks are deemed to be difficult for the students to comprehend and apply pragmatically and syntactically. This innovation promotes the students to understand the words better as it is designed thematically and systematically organised to students' level of proficiencies through differentiated learning strategy. Therefore, this paper aims to design, develop and evaluate the effectiveness of Let's Jizzle! in teaching and learning English vocabulary especially for Year 6 and Form 1 students.

2. METHODOLOGY

The research design used in this study was Design and Development Research (DDR) which was proposed by Richey and Klein (2014). There are four main phases in DDR: analysis, design and development, and evaluation. At the same time, ADDIE model has proven useful in developing gaming materials in education (Herout, 2016). Thus, ADDIE model was also applied in developing the jigsaw-puzzle based vocabulary learning kit named Let's Jizzle!.

2.1 Analysis:

Based on the classroom-based assessment, the researchers found that most of the students in transition from Year 6 to Form 1 were struggling in reading comprehension and communicative competence for both writing and speaking. Therefore, a need analysis was conducted to identify the areas of students' learning difficulties through a questionnaire (Hutchinson & Waters, 1987). The result of the questionnaire showed that the main reason was due to students' lack of vocabulary, misspelling of the words and comprehending the meaning of the words in their new textbooks, Academy Stars, as well as Pulse 2.

2.2 Design

In this phase, the researchers established an overall outline of how the teaching and learning of vocabulary will be delivered effectively. This included determining the best teaching strategy and creating useful and action-oriented learning objectives for vocabulary teaching and learning. Let's Jizzle! was created based on the data collected from the needs analysis as well as through thorough literature review of the relevant pedagogical theories and approaches. In order to facilitate effective vocabulary learning among the students of Year 6 and Form 1, the researchers curated the main objectives of Let's Jizzle! as:

- i. To comprehend the targeted words of different levels based on the three main themes in their latest CEFR textbooks.
- ii. To use the words in context (sentences) correctly.
- iii. To spell the words correctly.

2.3 Development

In this phase, the materials were developed from scratch using Microsoft Word, especially in designing the layout of the box, puzzles and worksheets before the printing process. All the



materials were assembled and kept in three different boxes for three different themes. Each box contains a dice, erasable marker pens, transparent puzzle-frames, pocket files with worksheets and three Ziplock bags with puzzle pieces labelled as beginner, intermediate and advanced. Let's Jizzle! was introduced to two individuals who had expertise to acquire their validation and feedback on suitability of the innovation product. The two experts were a SISC+ officer and a head of the English Panel respectively. The experts' remarks were analysed and the constructive comments were taken into consideration to upgrade Let's Jizzle! before applying it to the students. The results show that both validators gave more than 80%. After collecting the comments and feedback from the experts, amendments were made accordingly. The finalised draft was sent for printing.

2.4 Implementation

During this phase, Let's Jizzle!, was implemented to a total of 57 students from both Year 6 and Form 1 through purposive sampling. Initially, the students were given a pre-test to identify their level of vocabulary acquisition. It's to determine the level of students' understanding towards the words from their textbook. The result of the pre-test will be discussed in the evaluation phase where it will be used to make comparison with the post-test after implementing the product to the students. Then, the teacher introduced Let's Jizzle! to the students by describing the instructions. The description would clearly state that each box contains 3 packs with a total of 54 puzzles, which can be sorted into 18 words. The teachers demonstrated and explained the steps to play Let's Jizzle! The students are encouraged to start with the beginner pack and slowly upgrade to advanced level.

2.5 Evaluation

As for this phase, the students were given another round of a vocabulary test as a post test. The tests were conducted to determine the effectiveness of Let's Jizzle! towards teaching and learning English vocabulary for Year 6 and Form 1 students. The results were analysed and evaluated deliberately in findings and discussion.

3. FINDINGS

The results indicated that it is an undeniable fact that Let's Jizzle has brought in a huge change in the learning of vocabulary among the Year 6 and Form 1 students. All the students managed to get a good score and they displayed great improvements in their vocabulary learning. Through Let's Jizzle, students' interest to take part in an active learning was clearly seen and it encouraged them to interact with each other, thus, resulting in better acquisition and understanding of vocabulary. This is supported by Melasari et.al (2019) who stated that using games creates an effective impact on learners' vocabulary development.

Vygotsky (1978) also mentioned that students' problem-solving skills as well as their creativity and communication skills are enhanced through games. By playing Let's Jizzle!, students were



able to communicate effectively to complete the jigsaw puzzle together with the meaning. It eventually promotes an engaging learning atmosphere that gives learners the opportunity to grasp the information easily. It was also proven through the findings that students are more confident to use the words learnt in context as it is learned through cooperative learning and in a fun environment. This is in line with the previous study conducted by Halim et al. (2020) who found that students gain confidence in using English when they learn the language in a fun way.

4. CONCLUSION

The design and development of Let's Jizzle! with DDR as the research design and ADDIE model as the foundation of the study produced a positive effect towards the teaching and learning of vocabulary for both primary and secondary school learners of lower to intermediate proficiency. Results of both the pre and post tests showed significant outcomes as the learners experienced gradual progress in vocabulary learning. Learners' physical involvement in learning the vocabulary according to their syllabus and applying the knowledge in the process of playing Let's Jizzle! boost their confidence in acquiring English vocabulary. This game also enhanced collaborative and cooperative learning among the learners, which also supports autonomous and meaningful learning. Despite certain recommendations which can be further adapted, this toolkit is a great teaching aid to foster vocabulary acquisition towards building a stronger foundation in English vocabulary among the learners.

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