The G-Venture

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PISMP BI2 Jun 2017

SYNOPSIS

‘The G-Venture’ is an educational application. It is designed and developed by the researcher in an effort to make teaching and learning more interesting and enjoyable for teachers and pupils, and also to bridge the gap between formal pedagogic education and informal form of education. The app comprises of a song, a slideshow, a Virtual Reality quiz and two online games. It can be used either for self-learning by the pupils or as a teaching aid by the teacher.

OBJECTIVES

The objectives of ‘The G-Venture’ app are:

a. to introduce 8 Plural Nouns rules.
b. to help pupils apply the knowledge of Plural Nouns by scoring in quiz and online games.

INNOVATION ASPECT

Pupils should be able to use correct and appropriate rules of grammar in speech and writing. It is important to develop a solid foundation in basic English grammar rules as it will help the pupils to construct sentences correctly and to make it easier for them to improve in both their spoken and written communication skills.

Noun is the core of a sentence which conveys the meaning of what is being talked about and is viewed as the most prominent subject that makes a sentence works. Therefore, the researcher intends to focus on one part of the grammatical components which is Plural Nouns. From her past practicum experience, she found majority of her pupils were unable to identify the plural forms of most nouns. This suggested that the pupils require more attention on this particular language item which led the researcher to use an intervention called ‘The G-Venture’. As mentioned earlier, this app promotes various learning platforms that will definitely help the pupils learn grammar particularly Plural Nouns intrinsically and interestingly.

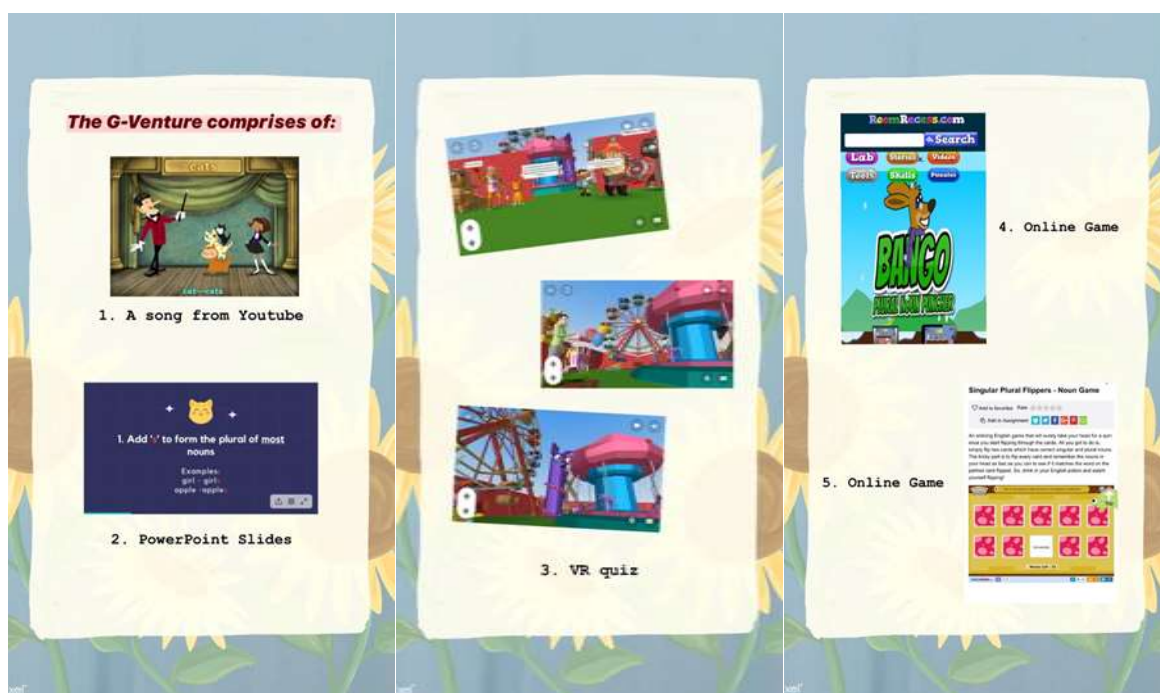Figure 1: The introduction page, first page and last page of the app

Figure 2: The activities found in the app

ADVANTAGES OF INNOVATION

The G-Venture' app promotes new learning approaches. The introduction of applications in the education sector has led to the introduction of new learning

methods. There are various activities available for the users such as watching a video, reviewing a slideshow, answering VR quiz and online games which focus on Plural Nouns. This would give the pupils the opportunity to use different types of learning platform. Furthermore, by using the application pupils can learn at their own pace (Mehdipour & Zerehkafi, 2013). In other words, it encourages autonomous learning.

SUCCESS OF INNOVATION

Firstly, the users commented that the app provides an age-appropriate content. Yelland and Gilbert (2011) believes that young children are very engaged with the apps and love to play with them for various amounts of time depending on their needs, interests, content and structure of the app. As mentioned by the writers, content is one of the vital elements in an educational app. Therefore, the content in G-Venture was carefully selected to enhance pupils' knowledge concerning Plural Nouns. It comprises of many learning options such as song, PowerPoint slides, Virtual Reality (VR) quiz and online games.

Secondly, the market for children apps is gaining children's attention due to their attractive graphical and interactive elements (Robijt and Van den Broeck, 2013). In G-Venture, vibrant illustrations are used especially in the VR quiz whereby theme park is chosen as the setting. Hence, the usage of bright colours affect emotions and have a significant impact on the pupils.

Last but not least, 'The G-Venture' app is very cost-effective as the researcher only spends RM34.00 in producing the product. That cost is used to upgrade one of applications used in the product which is Cospaces. The researcher upgraded it to enable her to have unlimited access to all the features in the app.
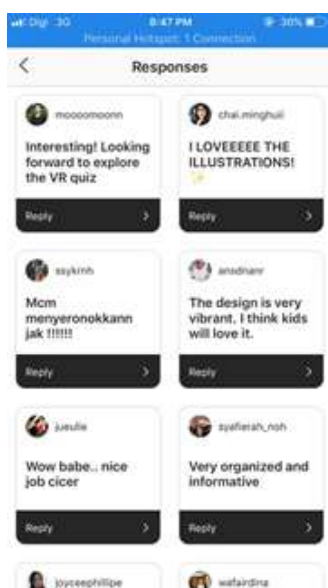

Figure 3: Some of the feedbacks given by Instagram users

Figure 4: A feedback given by a WhatsApp user

REFERENCE

Mehdipour, Y., & Zerehkafi, H. (2013). Mobile learning for education: Benefits and challenges. *International Journal of Computational Engineering Research*, 3(6), 93–101.

Robijt, S. and Van den Broeck, W. (2013). Children and tablets: towards an interactive television experience, *Proceedings of the 11th European Conference on Interactive TV*, 24–26 June, Como, Italy.

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'FARM KINGDOM' APPLICATION

Johnny Wong

PISMP BI2 Jun 2017

SYNOPSIS

The issue that I would like to tackle is on vocabulary learning. Vocabulary learning is the process of acquiring words and understanding their meaning in contexts. During my previous practicum, my Year 3 pupils found it hard to learn vocabularies on farm animals. This is due to the implementation of dull traditional teaching approach during the lesson. Besides, the main material utilised was the textbook, where pupils were required to read long texts and complete worksheets.

Hence, this innovation is developed to solve vocabulary learning problem within pupils. Effective teaching and learning strategy can be achieved by incorporating fun and motivating teaching tool. In this case, I developed the 'FARM KINGDOM' application. The application is student-centred and allows pupils' active participation. It allows pupils to acquire vocabularies regarding farm animals in an engaging and enjoyable learning environment.

OBJECTIVES

The objectives of this innovation are:

1.1.1 To teach the pupils new vocabularies on farm animals and their characteristics in a fun, engaging and meaningful way by using technology.

1.1.2 To create a learner-centred platform that enhances pupils' motivation and interest by giving opportunities to pupils to learn, practice and assess themselves anytime and anywhere.

INNOVATION ASPECT

As mentioned, the innovation that is developed is 'FARM KINGDOM' application. This application can optimally be used in any phone that has 4 GB RAM. The 'FARM KINGDOM' application will focus on vocabulary learning based on Year 3 Unit 7: Out and About, topic 'Farm Animals'. It consists of names of farm animals, their characteristics and sounds in a meaningful and enjoyable platform.

This application comprises of two components which are input and assessment. The input components expose pupils to diverse forms of knowledge acquisition methods. These methods include, learning vocabulary via videos and virtual reality (VR) experiences while the assessment components cover several approaches such as online challenges, quiz and games from several educational websites. In short, the usage of the application is comprehensive as it contains elements that support mixed-abilitiy pupils The availability of different aspects in the application fulfils the diverse intelligences mentioned in Howard Gardner's' Theory of Multiple Intelligences (Gardner, 2011).

Overall, it is undeniable that various multimedia platforms such as online applications, VR experiences and other interactive sources are used to teach. Many multimedia platforms are applied in class to enhance various teaching and learning sessions to captivate pupils. Nevertheless, the 'FARM KINGDOM' application that I intend to produce is different, unique and versatile. It is a holistic and complete teaching tool that integrate all these multimedia elements to be fully utilised, packed into one application.

ADVANTAGES OF INNOVATION

Overall, there are many benefits from using this 'FARM KINGDOM' application. First and foremost, this application generally promotes enjoyable and fun learning. Moreover, a great way to encourage pupils' willing to participate is to lower their affective by making the lesson fun. This later helps them retain information better because the learning process is entertaining and memorable. Besides, the technologies used in this application

allows the application of the four 21st century learning skills which are communication, collaborating, critical thinking and creativity. As proof, the 'FARM KINGDOM' application is very practical as it can be used by pupils in groups, allowing communication and collaboration between pupils. Not only that, pupils' creativity and critical thinking skills and will be heavily exploited through the games and quizzes enlisted in the assessment section. Moreover, this application is cost effective as I do not need to spend any money to produce this application.

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SUCCESS OF INNOVATION

First and foremost, the application is successful due to its fun and stimulating nature. For instance, this application included game-based assessment methods such as Quizizz and Scratch as well as promoted student-centered learning due to its practicality that allowed users with multiple intelligences to enjoy the application. In addition, diverse multimedia platforms were also available in the application. This can be seen through the integration of songs and videos from YouTube videos as well as 3-Dimenstional graphics in the virtual reality (VR) experiences.

Other advantages of the applications were the usage of simple instructions. The instructions were straightforward and clear. These would benefit the target users because pupils prefer short and precise instructions that were easy to understand. On the other hand, it would be easier for pupils to learn vocabulary through the application. They were able to distinguish between farm animals and show improvements in vocabulary learning skill.

Learning Application "Animal Spell-it!" Improves Year 1 pupils' Spelling and Animal Vocabularies

Jong Wan Qi

PISMP BI2 Jun 2017

SYNOPSIS

Spelling is an important knowledge which will help pupils to read and write effectively. However, it has been identified that some of the Year 1 pupils have problems in spelling animal vocabularies. Therefore, a digital innovation, which is a digital learning application named "Animal Spell-it!", has been created to solve the problem. After the intervention, the Year 1 pupils are able to spell the animal vocabularies. They also get to learn more animal vocabularies and the process of learning animal vocabularies has become more interesting for them. The lesson has also become more effective and the Year 1 pupils enjoy learning the animal vocabularies.

OBJECTIVES

1. To overcome the spelling problems among the Year 1 pupils by incorporating digital and fun learning.
2. To help the pupils to master the content in the textbook.
3. To introduce extra knowledge which is not found in the textbook.
4. To integrate 21st century skills such as critical thinking and collaboration among the Year 1 pupils.
5. To prepare digital academic materials which the pupils can assess through the mobile gadgets.
6. To help pupils to have better understanding of the learning content in the Year 1 Unit 3 syllabus through digital learning.
7. To allow pupils to learn anytime and anywhere.

INNOVATION ASPECT

The digital application "Animal Spell-it!" is created to help the Year 1 pupils to learn the spelling of the animal vocabularies more effectively and in a more interesting way.

Unable to memorize the spelling well

Some pupils were unable to spell some animal vocabularies correctly even though drilling had been carried out in the classroom. This affected the following lessons as the pupils have not mastered the spellings, causing them unable to recognize the vocabularies or spelled the vocabularies wrongly.

The learning process of the spelling is dull

The teacher was unable to find an effective way where pupils can learn spellings in a more interesting way. Activities such as singing, spelling quiz, and brochure designing failed to help the pupils to remember the spellings well. There were also some pupils who complained those activities were too boring and were demotivated to learn. This is an important problem to be solved as it will cause the pupils unable to concentrate in the classroom and therefore will lose interest in their studies.

Limited learning content in the textbook

The learning content in the textbook is very limited. If the teacher only focuses on the textbook content, the pupils will not learn much animal vocabularies. "Animal Spell-it!" is an Android learning application which contains various digital learning materials, such as videos, games, quizzes, and a VR game. The application is created by referring to the Trialogical learning design. The design focuses on technology-enhanced collaborative learning and aim to sustain students in creating knowledge artifacts together.

In the first version of "Animal Spell-it!", the VR game "Escape the Spell-room" is lack of sound effects. Some instructions in the application are also not very suitable for Year 1 pupils. After collecting feedback from the testers, who are the teachers, some improvements have been done for the application. Firstly, background music and sound effects had been added into the VR game. For the background music, a light music that brings a happy and relaxing mood had been chosen. For the sound effects, the animal sounds had been added to every animal in the game. Secondly, the instructions in the application has been simplified so that the Year 1 pupils can understand the instructions better.

Figure 1: A screenshot from Room 1 of the VR game, "Escape the Spell-room".

Figure 2: The entrance of Room 5 in "Escape the Spell-room."

ADVANTAGES OF INNOVATION

Firstly, the educational content in the application is effective in helping the Year 1 pupils to learn the animal spellings. Based on the feedback in evaluation checklists, the educational content is suitable and is relatable to the Year 1 English language syllabus. In the interview, the testers also pointed out that the application offers digital learning, which can benefit the Year 1 pupils in learning, as young learners nowadays are mostly digital natives. They will learn more effectively through digital content and games and this feature is found in "Animal Spell-it!" Hence, young learners will learn better when they are unaware that they are being given the input, and the process is called language acquisition. The application does not only include games, but also fun quizzes, and other interesting learning activities which are closely related to the acquisition of English

language. By using this application, the learning experience of the Year 1 pupils will become better as they will learn by playing.

SUCCESS OF INNOVATION

By using the innovation, the Year 1 pupils will learn the animal spellings more effectively. The innovation will also help teachers to teach animal spelling more effectively. At the same time, it will help the teacher to incorporate 21st century learning into their lesson and this will improve students' learning experience. The cost of the production is costless because the application was created using free platform such as Thunkable, CoSpaces Edu, Wisc Online, Quizizz and some other available application from the Google Play store.

Harry Potter ConQuest

Joycee Jawai anak Philip

PISMP BI2 Jun 2017

SYNOPSIS

As a trainee teacher, the researcher had gone through practicum phase one. Reflecting on her previous teaching practices, the researcher had stumbled upon numerous problems throughout the period of practicum. The setting in a real classroom has given the researcher a whole new perspective and it was undeniably challenging as the researcher came in without sufficient experience in teaching.

During the first practicum, the class that the researcher taught for English Language subject was Year 2. She conducted a lesson that was related to coordinate conjunctions which are "for", "and", "nor", "but", "or", "yet" and "so" or FANBOYS. After going through some lessons and checking their worksheets, the researcher noticed that the majority of the pupils in the classroom were having a difficult time using the correct and appropriate coordinate conjunctions in their sentence. This is due to the fact that existence of knowledge of conjunctions in students' mainframe is prerequisite before it can be used. It means that one should acquire the information for the form to carry meaning. For a non-native English speaker this happens when English is not used as in daily communication, the process of acquiring such information can be in a hard position.

The researcher did a correction session with the pupils verbally and attempted another try for the pupils in the following week. The researcher shuffled the order of the questions and the pupils answered the worksheet. Despite having done the verbal correction together with the whole class, the pupils were still having troubles to differentiate and use the appropriate coordinate conjunction in a sentence. This scenario emphasises the necessity to learn language by using the focus on forms approach. While learning about the variety of conjunctions, the students also need to learn about the meaningful way to use the conjunction. Hence, the students will not only learn about the structure but also the meaning or situation in which the conjunction should or should not

be used. Therefore, the researcher intends to use new intervention using the Harry Potter ConQuest game to improve pupils' coordinating conjunction usage in their writing skill.

OBJECTIVES

- ✎ To improve teaching practice in coordinate conjunction usage in sentence writing for Year 2 pupils.

- ✎ To improve Year 2 pupils' coordinate conjunction usage in sentence writing by using the learning application "Harry Potter ConQuest".

- ✎ To implement fun-learning and student-centred English Language lesson

INNOVATION ASPECT

The innovation is a game-based digital learning application. One of the main goals is to let pupils experience a fun classroom lesson and learn something meaningful. The fun learning incorporated in this application is parallel to what is highlighted in the Standards-Based Curriculum for Primary Schools (KSSR) Framework under Curriculum Principles, focus 2; *"Fun, Meaningful and Purposeful Learning".* By creating a fun learning application, pupils will be able to stay motivated and interested that lead to active participation. Pupils need to stay motivated because motivation is a key aspect of effective learning.

The innovation is also set out to realise the importance of focus 4 of the Curriculum Principles; integration of salient new technologies. Technologies such as augmented reality (AR) and virtual reality (VR) are making their way to the classroom to help pupils engage in more visual and interactive activities. The researcher's learning application does embed virtual reality (VR) and 360 degree spherical content features as it is more immersive compared to augmented reality. Gadelha (2018) stated that virtual reality (VR) helps primary school pupils to be more deeply connected with classroom topics. The application is game-based because it creates engaging and immersive learning experiences for delivering specified learning goals, outcomes and experiences.

Figure 1 The interface of the game

Figure 2 The settings and content summary

ADVANTAGES OF INNOVATION

As what has been mentioned, the game makes the best use of Virtual Reality (VR) and this paradigm shift will help pupils to focus while having fun in class, in line with the subject of the integration of digital technology in the classroom. The application is user friendly and contains features that pupils hardly can resist.
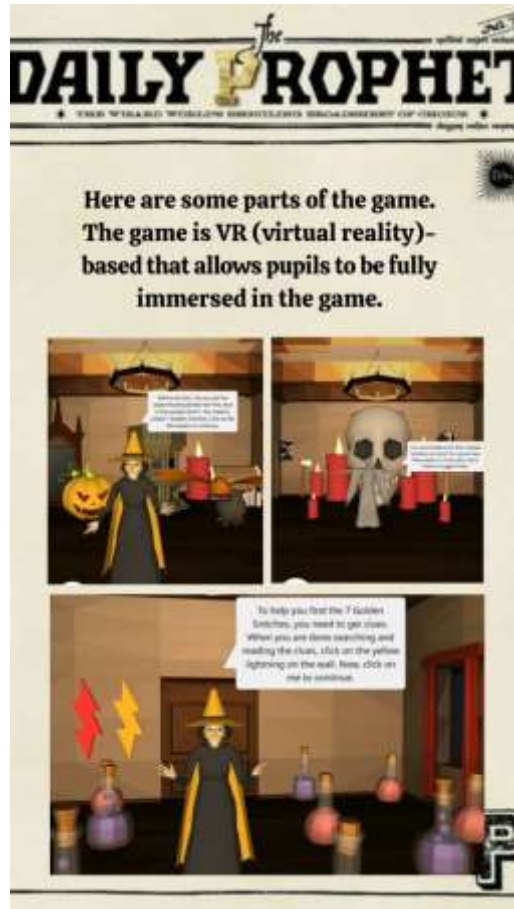

Figure 3 Part of the game that allows pupils to learn about conjunction before applying it in the real conquest

Figure 4 Additional feature that allows pupils to relearn what they have learnt in the game

SUCCESS OF INNOVATION

The innovation has shown significant impact to the usage of conjunction of Year 2 pupils where most pupils are able to use and distinguish the usage in a sentence much better than before being exposed to the application. Nevertheless, the innovation is cost-effective as zero Ringgit has been spent.

Capnival Application

Marion anak Fidelis @ Saging

PISMP BI2 Jun 2017

SYNOPSIS

During my first practicum, I was appointed to teach English Language lesson in Year 2 class. In a lesson conducted specifically for capital letters and full stops, pupils were asked to draw the monster of their own choice and write a few simple sentences about it. In the sentence, they need to name their monsters too. To my findings, some of the pupils did not write the first letter of the name of the monsters in capital letters. They also at some points did not write the first letter after a full stop in capital letters.

There are four skills being addressed in language learning which are reading, listening, writing and speaking. According to Challay and Jones (2019), a number of people might put more emphasis in delivering the meaning of text than other aspects of language. This includes neglecting the importance of capitalization in writing. Nevertheless, for a person to be regarded as proficient user of a language, they need to master all the four skills which are listening, speaking, reading and writing. So, capitalization is under writing which shows the significance of it in the mastery of the language. The researcher strongly believes that learning a language involves taking understanding of both productive skills (speaking and writing) and receptive skills (listening and reading).

Thus, the innovation namely Capnival application would help pupils in capitalization. This innovation comprises 3 elements of learning which are input, practice and assessment. In input section, pupils will be exposed to capitalization rules through acrostic mnemonic note, song, online video and virtual reality experiences. Then, for practice part, there are 3 different games allocated to familiarise them with the capitalization rules. Lastly for the assessment, there will be 3 quizzes of different levels (easy, medium and advanced) for pupils to complete. The results of the quizzes can be viewed by teacher. Pupils would also be able to see corrections if they answer wrongly.

OBJECTIVES

•   To improve my teaching practices in addressing the rules of capitalization in sentence writing for Year 2 Pupils.

•   To improve Year 2 Pupils' performance in using the rules of capitalization in sentence writing using Capnival Application.

INNOVATION ASPECT

Capnival application is meant to help pupils with difficulties in using capitalization correctly. Some of the weaknesses leading to this problem are:

1. Pupils could not recall the categories of words thus resulting in capitalization problems. For example, they did not aware that names are proper noun. So, they did not begin the words in capital letters.

2. Pupils were ignorant towards writing letters appropriately because they thought it did not affect the delivery of meaning.

Capnival application comprises 3 elements of learning which are input, practice and assessment. In input section, pupils will be exposed to capitalization rules through acrostic mnemonic note, song, online video and virtual reality experiences. Then, for practice part, there are 3 different games allocated to familiarise them with the capitalization rules. Lastly for the assessment, there will be 3 quizzes of different levels (easy, medium and advanced) for pupils to complete. The results of the quizzes can be viewed by teacher. Pupils would also be able to see corrections if they answer wrongly.

Figure 1: Interface of application and summary of content

ADVANTAGES OF INNOVATION

Capnival application will expose pupils to a new way of learning capitalization. It will bring a more meaningful learning because it involves audio, video and even virtual reality experiences. Mąkosa. (2013) stated that methods practised at lessons with the use of multimedia are more involving for pupils and consequently, pupils will be more committed in learning. With the existence of engaging activities in the application, pupils would not feel bored. Furthermore, this innovation would allow self-assessment among pupils where they will be able to take quizzes and learn the correction by themselves. Below are some of the features inside Capnival application:

Figure 2: Acrostic Mnemonic Note that helps with pupils' memorisation and recognisition of word categories

Figure 3: YouTube videos to further highlights the importance of capitalization

Figure 4: Games in the form of virtual reality to familiarise pupils with the concept and to engage them with learning
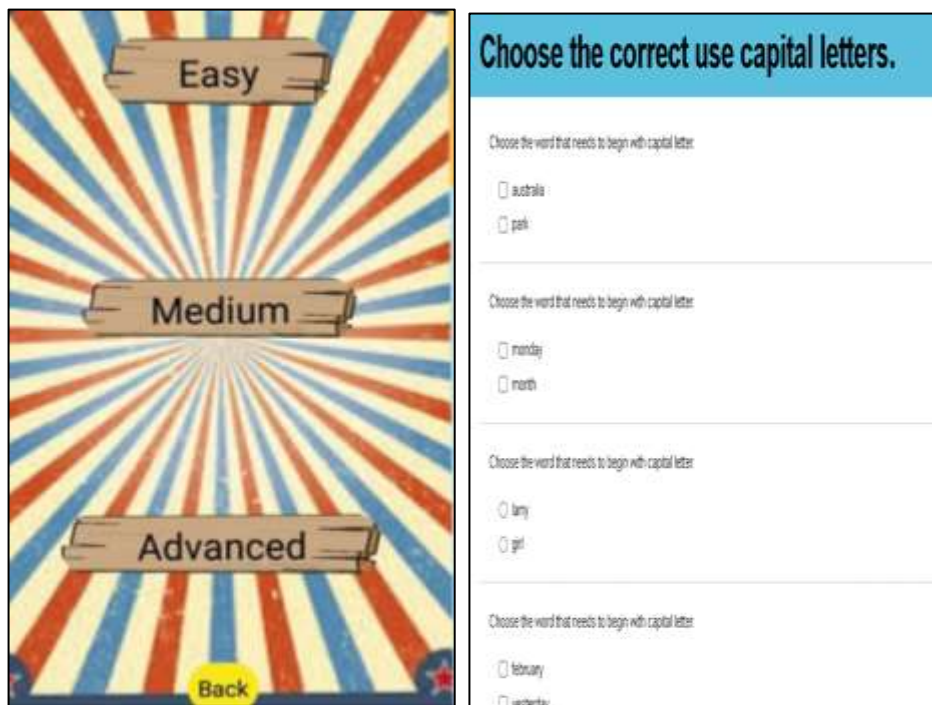

Figure 5: Quizzes in 3 levels

SUCCESS OF INNOVATION

From the aspect of teaching and learning, the app is effective in value of errors. Users agree that it offers users the explanations for their incorrect answers, allows users to review the materials related to the questions, and then gives them an opportunity to answer the questions again. Furthermore, the app is assessment-friendly for the teachers. It is proven that teachers are able to track users' achievements while using the app. Teachers can access the reports through email or by visiting the quizzes' website. In addition, the app's content is proven organized, allowing easy navigation. This is because the text, graphics, videos, sound, and speech are placed decently. This explains why the users did not need my guidance during the test-run. Users also mentioned that the instructions given in the app were easy to understand.

In addition, the app's content are appeal to its targeted audience. Most users were very intrigued to explore the virtual realities content. Games allocated were motivating in a way that the pupils were driven to do better because they wanted to get the prizes. Thus, it brings to a conclusion that it is important to let the users know the rewards of the correct answers because players who have expected achievements will perform better than those who have unexpected achievements.

The acrostic mnemonic that I have placed have become great help for pupils in answering the quizzes as they mentioned it in the interviews. The use of mnemonic promotes retention and provide structured strategies for retrieval of that information. This is all proven when users took the quiz with ease after remembering the acrostic mnemonic.

Last but not least, the cost of development for this application is not much. However, it requires internet connection so I need to purchase mobile data to build it. To use this app, the students would only need a hand phone and internet connection.

CLOSET IN MY POCKET

MARK DARREN ANAK MARTIN

PISMP BI2 Jun 2017

SYNOPSIS OF INNOVATION

As one of the core requirements of our bachelor's degree program, students from the Institute of Teacher's Education Batu Lintang Campus were required to go for their first phase of practicum on the 5th semester. I was given the opportunity to go to a nearby school within Kuching. I was asked to teach a Year 2 class continuing the Topic 7- Get Dressed left by the English teacher. One of the grammar items required to be taught in this topic according to the Scheme of Work (SOW) is the demonstrative pronouns 'this/ these' (KPM, n.d.). That was when I noticed the Year 2 pupils had problems in writing simple sentences using 'this/ these'. The problem appears in identifying words which are presented in the plural forms such as jeans, socks, sneakers, etc. Pupils often mistaken these words as singulars thus they used the incorrect demonstrative pronoun 'this' to describe the words.

OBJECTIVES

The objectives for the development of this digital innovation are as follow:

- To improve Year 2 pupils' application of demonstrative pronouns (this/ these) using the "Closet in My Pocket" application.

- To improve teachers teaching practice of demonstrative pronouns (this/ these) using the "Closet in My Pocket" application.

- To encourage the application of 21st century learning through digital medium.

- To create fun, interactive, and informative learning environment for pupils.

INNOVATION ASPECT

The content of my innovation will include three stages of a lesson, similar with a traditional lesson plan outline which are pre-lesson (start), while-lesson (practice), and post-lesson (test). In each menu options, pupils are introduced with two activities. In the start option, pupils would first watch a video about nouns of clothes. In the second activity, pupils are taught on how to correctly use the demonstrative pronouns this/ these to describe different clothes. After that, pupils can move on to the practice stage where they will be doing activities such as match the correct sentences to the clothes and using demonstrative pronouns this/ these in context. The activities in the practice stage will be done in the form of Augmented Reality (AR) so that pupils are better motivated to learn the language items. In the test stage, pupils will need to apply what they have learned by completing assessments in the form of fill-in-the blanks exercise and matching descriptions exercise.

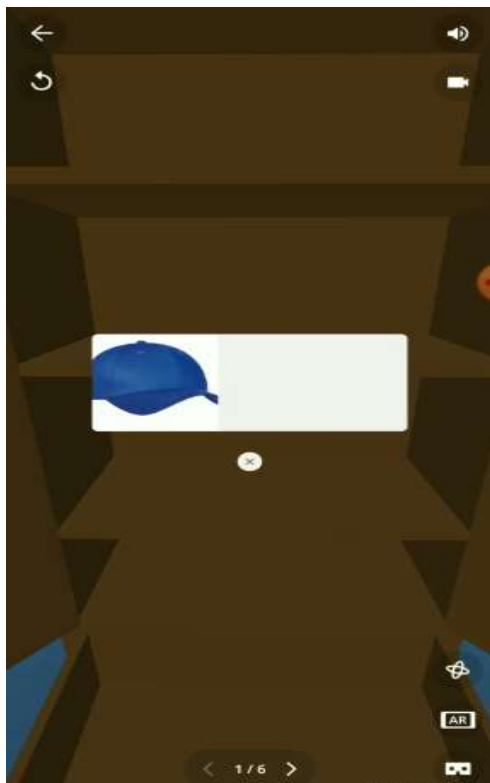Figure 1: Three stages of lesson in the main menu.

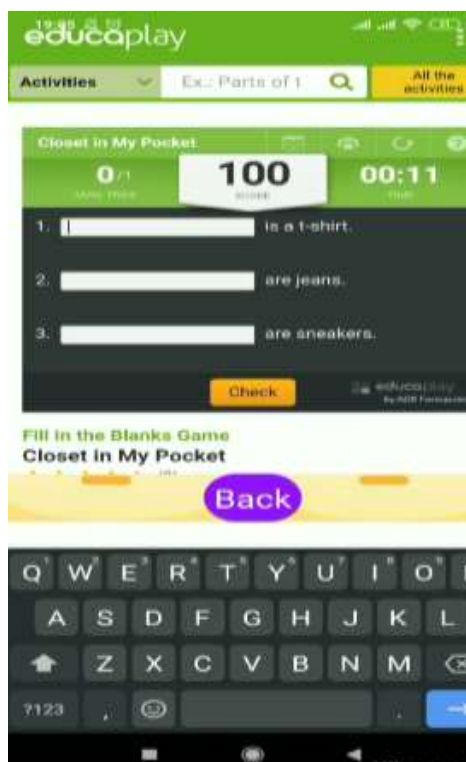Figure 2: Activities in the form of Augmented Reality (AR).

Figure 3: Fill-in-the-blanks assessment activity.

ADVANTAGES OF INNOVATION

The development of this innovation will bring positive impacts in solving the problem of using demonstrative pronouns this/ these among Year 2 pupils by integrating technology. Technology makes the learning process interactive, and pupils learn by engaging, researching, and receiving feedback. Besides that, the use of technology enhances pupils thinking and enables them to think out of the box and make the best use of their learning process. This means that technology in education allows pupils to learn in a fun yet meaningful environment, thus displaying better learning outcomes.

Figure 4.1: The use of technology for more interactive learning experience.

SUCCESS OF INNOVATION

The app is relevant and helpful for pupils to learn the demonstrative pronouns (this/ these). This is because the app was created in line with Topic 7 – Get Dressed in the Year 2 textbook as well as the CEFR curricular framework currently used in the English Language lesson. The content of the app would benefit pupils because they are learning language items that are contained in the syllabus using a different platform other than traditional classroom activities.

Secondly, the app is engaging and motivational for pupils to use. I feel that this response is due to insufficient activities in my app. This situation can lead to less pupils' engagement on the app as they spend a shorter time to complete the activities and the feeling that the activities are too easy can demotivate pupils to use the app.

In terms of production cost, the development of this digital innovation will not require any direct cost from the developer. Development of the innovation will be done through online platforms. All elements (pictures, games, etc.) required for the innovation will also be available online.

Prepositions Buddy

NUR DANIA DAYINI BINTI MUHAMMAD YUSRI

PISMP BI2 Jun 2017

SYNOPSIS

My innovation is called "Prepositions Buddy". This app has three stages which are levels one, two and three. A video regarding prepositions is embedded in level one, as an introduction to what prepositions are about. For level 2, an online game is embedded in order to test the users' understanding of prepositions according to the limit of time. For level three, questions and also videos are inserted, and if the user answered the questions incorrectly, they will be sent to the home screen and will not be able to go to the next question. In the end of level three if the user gets all of the questions correctly, they will be able to play another online game of which they need to make a full complete sentence by using prepositions within a very shot period of time.

OBJECTIVES

- To help primary school children to understand the simple concepts of prepositions easily.
- To enable primary school children to learn regarding simple concepts of prepositions in a much more interactive way other than just in the clasrooms per say.

INNOVATION ASPECT

Learning English as a second language will always has its struggle, especially with primary school children. This is because each children differ in regards to their level of understanding due to their cognitive capabilities (National Research Council 2000). Thus, due to the advancement of technology,children are able to increase their knowlege

regarding the English language through games and online digital applications of which acts as a supplement for their classroom learning ("Using Technology as a Learning Tool, Not Just the Cool New Thing"). Also, based on my previous practicuum experience, I realised that my students have difficulty in learning prepostions. But, this problem is not considered alien as prepositions are considered as 'tricky little beasts' ("How to help learners of English understand prepositions") as the tendency for primary school students to get all the prepositions mixed up is considerably high. Thus, it goes to show that the motives or objectives for the creation of my app is very logical and sensible.

ADVANTAGES OF INNOVATION

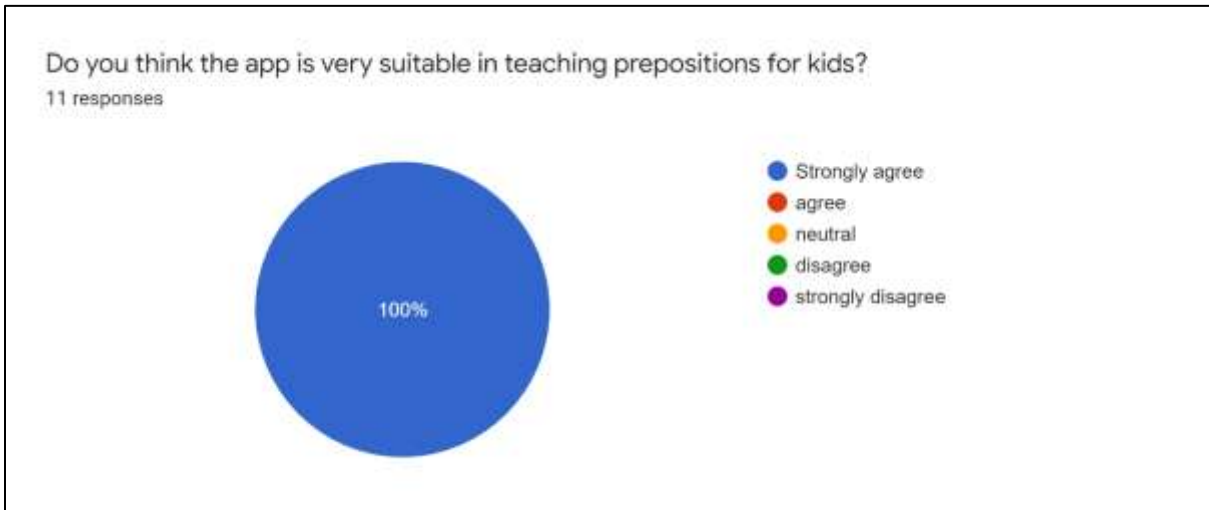The feedbacks are recorded and then calculated into percentages. The examples are as below:
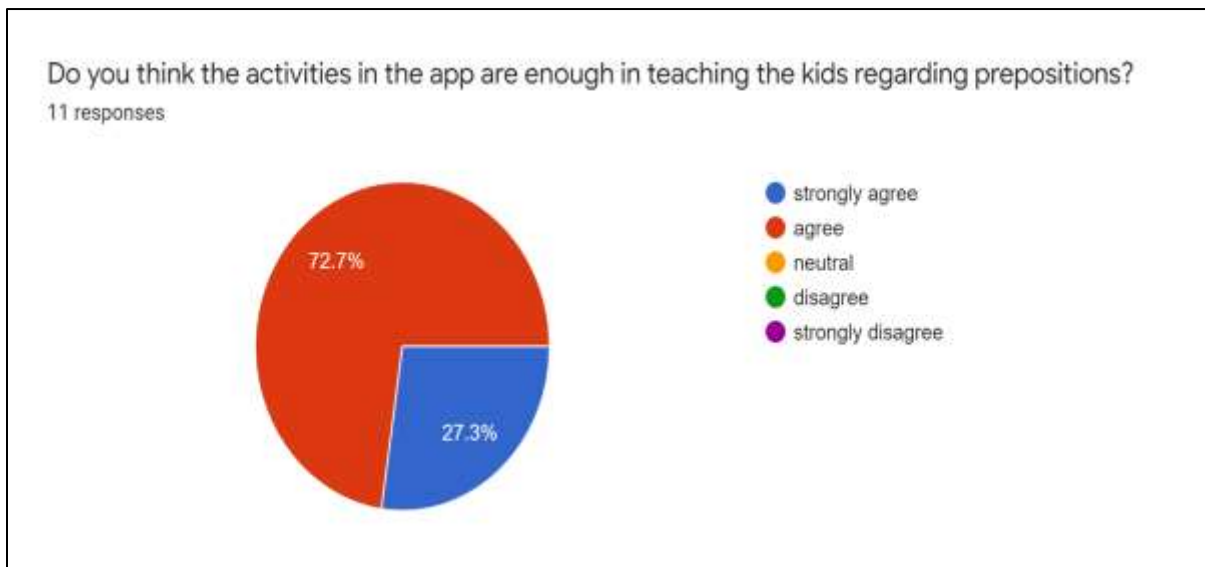

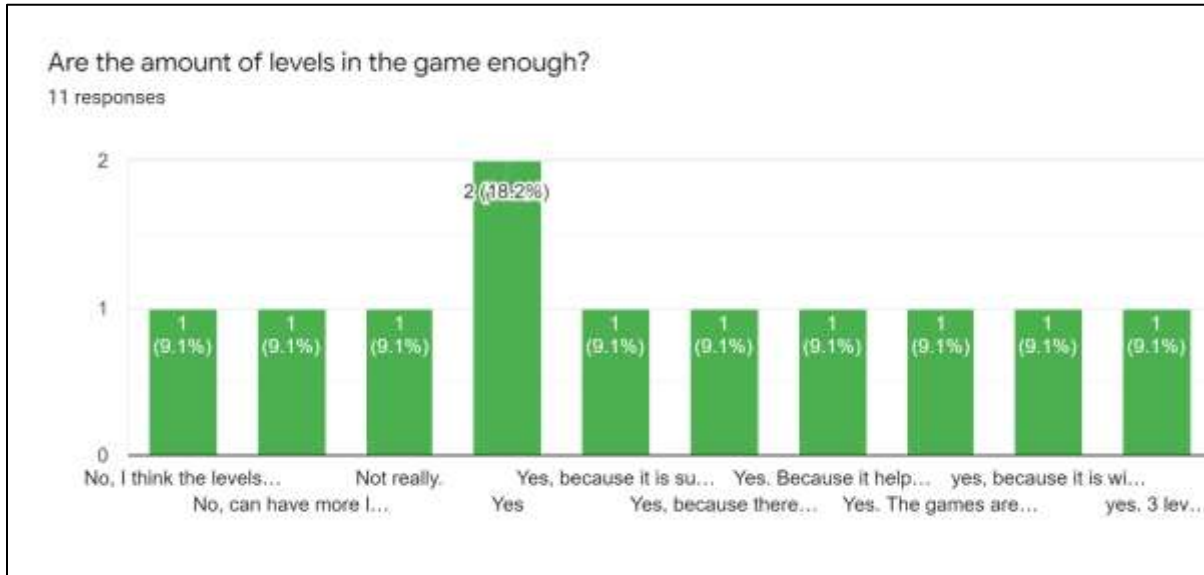Figure 1: App suitablity

Figure 2: Amount of activities

Figure 3 : The suitability of the amount of levels
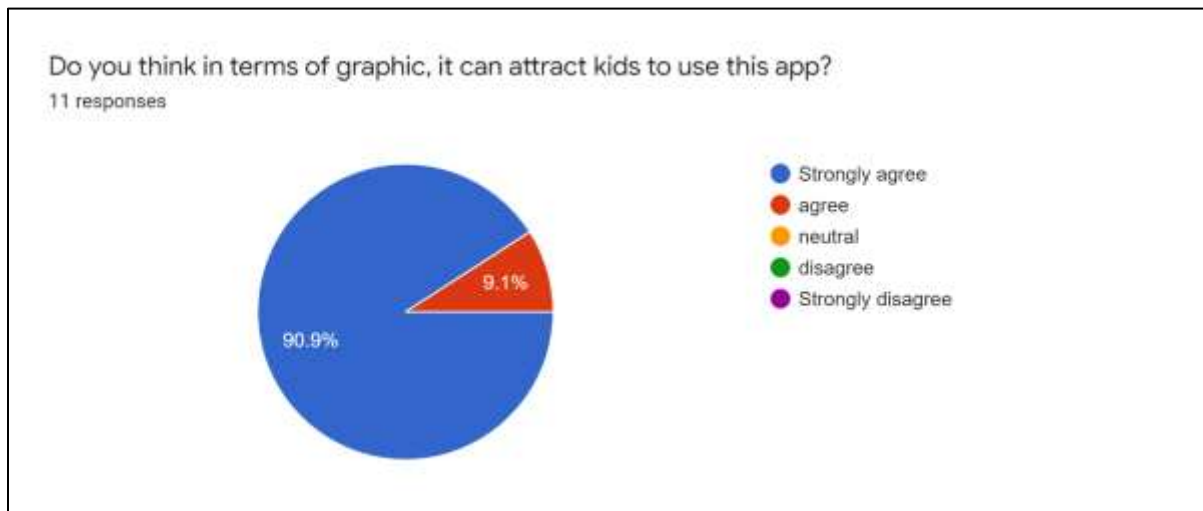
Figure 4: The suitability of the graphics being used
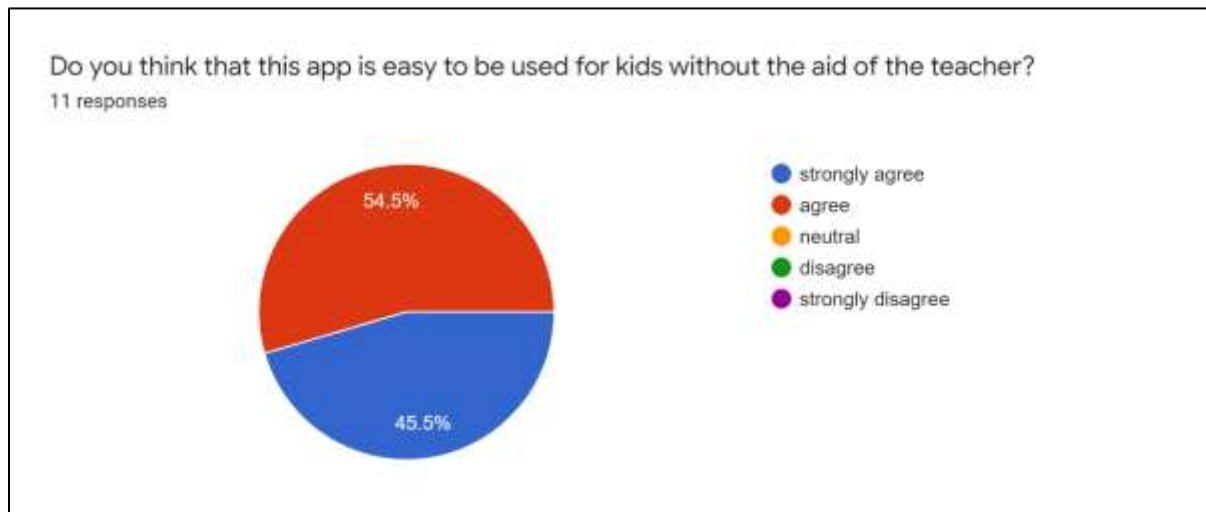
Figure 5 : The easiness of the usage of the app

Figure 6: The Level of Effectiveness of the App

Based on the feedbacks that has been received, it can be concluded that 'Preposition Buddy' is a suitable app for children to learn regarding prepositions as not only the activities, but also the easiness of using the app and also, the graphics are able to catch the attention of the kids to learn more about prepositions. But, even though in figure 1 the

percentage of feedbacks saying that the app is suitable received a value of 100%, there are still downsides of it. The downside of the app is that even though th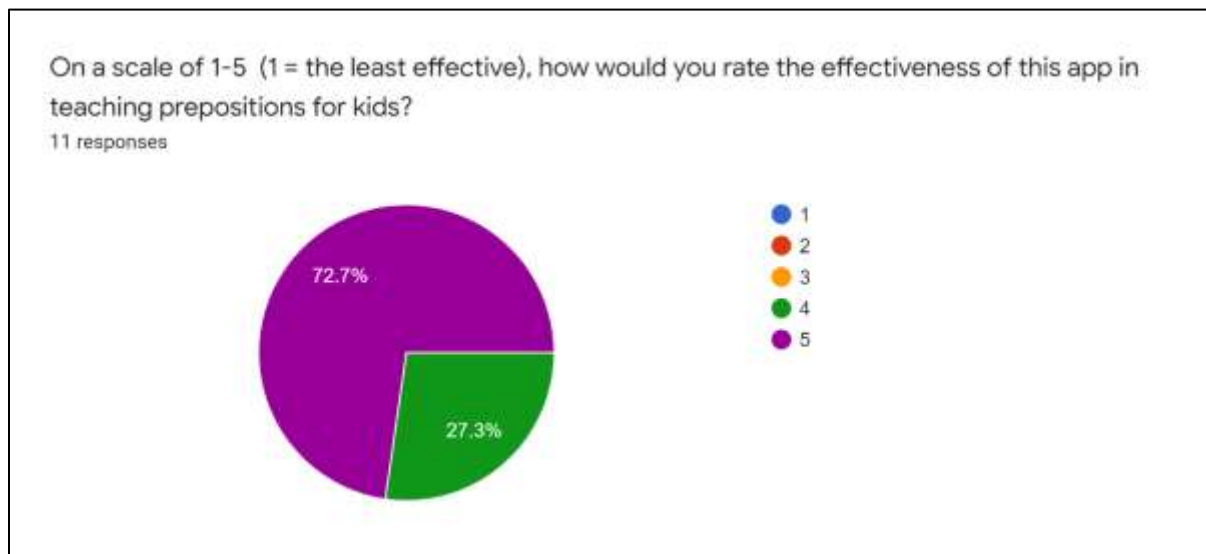e activities are suitable for children, it may not be enough for them. According to figure 2, 72.7% of the feedbacks only 'agree' that the app has suitable amount of activities, when actually, I was targeting that the majority would vote on 'strongly agree' instead. Thus, that is why, for further amendments in the future, I will increase the amount of activities inside the app, instead of only having three levels only. Not only that, I will incorporate much more diverse activities as well, such as incorporating more augmented reality games and virtual reality games rather than games from websites and multiple-choices per say. Also, in terms of the level of effectiveness of this app, 27.3% only voted a 4 out of 5, with 1 being the lease effective. This is interrelated to the amount of activities within this app as well, the more the activities and the more diverse they are, the more effective this app in achieving its objectives. Not only that, I also need to incorporate high order thinking skills (HOTS) questions in order to give the children some more challenge, thus making them drawn to the app much more as their intrinsic motivation increases in order to answer the questions.

SUCCESS OF INNOVATION

Among the impact that I would like to see regarding this project is that primary school students all around Malaysia will be able to learn about the usage of prepositions and by putting their knowledge regarding prepositions to test. This is because, knowledge can now be accessed on your fingertips as smartphones and other technological gadgets are now considered as a necessity in our daily life. Also, by using this free mobile application, all students no matter what financial background they have will be able to learn regarding all kinds of prepositions anywhere they are, rain or shine, as long as they just download the app.

Preposition Genius Application

Nur Fatrah Binti Hussin

PISMP BI2 Jun 2017

SYNOPSIS

In developing this innovation item, it may help the learners to comprehend the word class they are learning. Firstly, it may help the students to have a broader access of preposition aiding by visual example. There is only a few apps in the market where it incorporate notes, games, videos and stories to understand the concept of preposition. If there is, users will be charged for a certain amount. For school student, my apps will be practical for them.

Pupils will also get instant feedback as they answers the question after learning the topic preposition. They will immediately realised their errors and can see the example shown to them. Therefore, they will be able to understand the concept slowly but surely. Game Based Learning not only just fun, but it is also meaningful. Game-based Teaching and Learning motivates pupils to learn and immerses them in the lesson so they can learn more effectively. They are encouraged to learn from their mistakes. Very often when students are engaged in a game they do not want to stop until the game is over. This, as Lepper & Cordova (1992) state, is intrinsic motivation brought on by challenges, curiosity, control and fantasy. This approach also promotes interactive learning as they can response and get feedback from the apps and problem-based learning as they need to solve the questions in limited time.

Furthermore, it is more efficient in term of time management whereby the students as they need also need to allocate their time for other subjects. Next, it is aimed to promote multiple intelligences so that it is exploited well using the product that is invented. Lastly, majority of the pupils have the access to electronic devices thus, in terms of practicality, this innovation can be applied in their daily life.

In my product innovation, I include:

- The elements of visual/spatial

As visual learning is effective to pupils, they grasp the new infromation easier and faster.

- Fun-learning

Fun-learning happens when music, colours, story, songs and videos are incorporated in one place to start the lesson.

- Animated objects

As preposition needs to be guided by visual aids, animated object and character is the best item to be included in this app. It will explain in detail the position of the context. Therefore, pupils will understand the concept better.

- Games and activities for evaluation purposes.

I used the Cospaces Edu to create a game for the participants so they get to had fun experiencing Augmented Reality while understanding the concept of preposition of place. Assessment is also important to check the pupils understanding by how they apply the knowledge through these components. Therefore, I used Quizziz as the platform to create my quiz for two different levels; Novice and Advance.

OBJECTIVES

☐   To provide learners with broader prepositional with meaningful explanation aiding by visual and fun games.

☐   To help learners identify the correct spelling of preposition and use them accurately.

☐   To use the game to help me teaching preposition.

☐   To use the game to helps Year 3 Pupils to learn preposition.

INNOVATION ASPECT

Preposition Genius application is meant to help pupils who are weak in preposition subtopic. Some of the weaknesses leading to the problem are:

•   Pupils are not able to describe the correct preposition of the object, animals or people in any situation.

•   Pupils are always confused with the correct use of preposition in some situation.

With the elements comprises in the application such as notes, practices, learning materials in the forms of video, music, augmented reality and visual, it will aid the pupil to be exposed with adequate preposition examples. Furthermore, it also includes fun games, story telling and activities and assessments in the form of quizzes.

Quiz Level
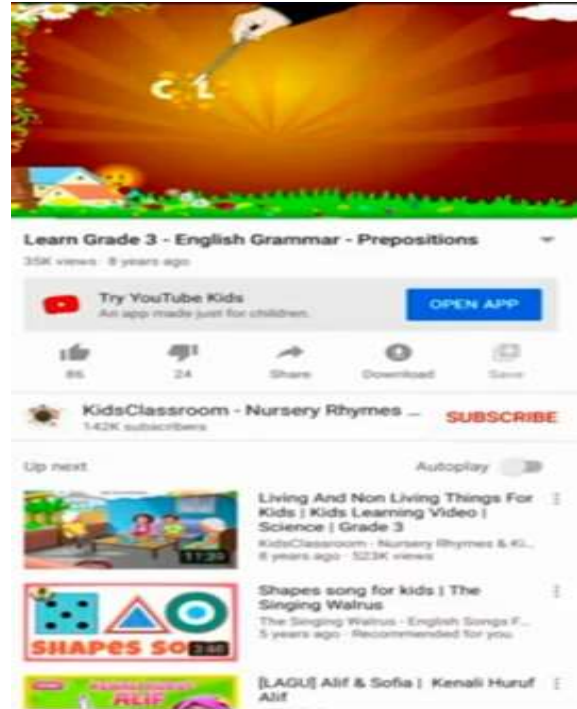
Songs

Story telling

Cospaces- Augmented Reality

Games

Notes

Homepage

ADVANTAGES OF INNOVATION

☐   Technical complexity

The technical complexity is quite low for Year 3 pupils to use it as they just need to follow the instruction provided.

☐   Creativity

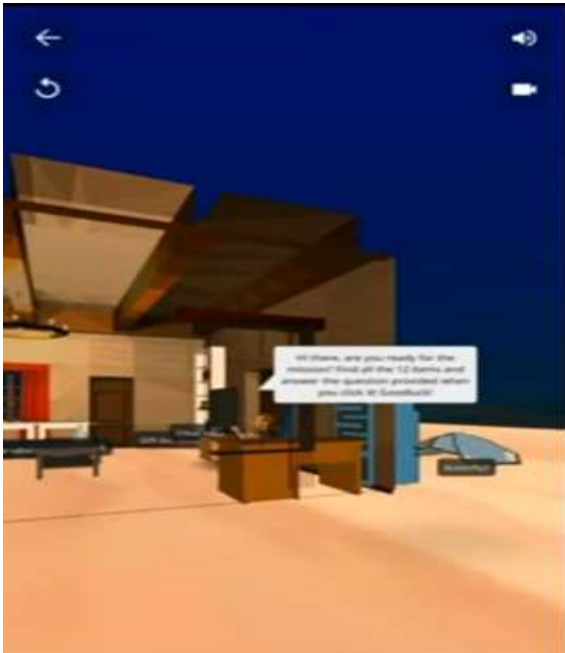Pupils can visualise the picture to make them understand the context by following the story, songs, videos, games to participate. Scene creation to teach a particular area,

☐   Innovation

This app provides a complete way to learn the topic preposition while having fun with the songs, videos and games in one platform. The use of AR to experience the 21st century technology while learning about the topic.

☐   Marketing potential

Since this app is very useful for Year 3 pupils, the teacher, parent and students will be the targeting market. Since it is a free app, it is very practical to be used to teach the topic. Moreover, the medium in promoting the app is by using social medias which is globally utilised in the whole world. Therefore, marketing should be easier.

☐   Cost effective

The platform used is widely known. I have integrated the apps Thunkable, Educaplay, Cospaces and Youtube. These are all free for new users.

☐   Time effective

To be able to understand the concept of preposition and answering questions will not use much of the time. Pupils just need about 15 minutes to go through the notes. As for the creator, they will need to have quite some time in order to create the project.

☐   Low labour cost

 No labour cost needed in this project.

☐   Practicality

As pupils will be able to use the app in every medium, anytime and anywhere, it is very practical to them to use it.

☐   Able to solve identification problems - High chance

As the focus is to help pupils with problem in the topic preposition, the app has provided varieties of input, assessment and games to let them understand the concept. Therefore, there will be a high chance that it is able to solve the identification problem.

☐   Reusable

This app is reusable as it is not based on real time policies. It is also allined to the CEFR framework applied in Year 3 textbook, therefore, it is reusable for every Year 3 pupils of the century.

SUCCESS OF INNOVATION

I have developed a digital innovation app called 'Preposition Genius' to help Year 3 pupils with the topic preposition. After narrowing down all the information, I found out that the topic preposition is one of the most alarming issue to handle during my practicum days. Therefore, I incorporate the app with different platform which are notes, Augmented Reality games (Adams R 2006), online assessment, audio recorded story time, videos and songs to let them understand the concept of preposition.

I let my friends tried this app to see the effectiveness of digital innovation to solve the teaching-learning problem. There are several responses that I collected from the online survey (Google Form), Youtube and Facebook. Firstly, regarding the usability of the app. It has a good functions and user-friendly interface design to help the learners easy to navigate the app till the end. The PACMAD usability model identifies 7 attributes which reflect the usability of an application: Effectiveness, Efficiency, Satisfaction, Learnability, Memorability, Errors and Cognitive load. Each of these attributes has an impact on the overall usability of the application and as such can be used to help assess the usability of the application (Nielsen J 1994). Therefore, I think have fulfilled some of the attributes and need some improvement for a better result.

Secondly, the content of my app is resourceful and innovative. I have adopted many resources The users also agreed that the app is conform to the standard syllabus for Year 3. I have integrate all the preposition vocabularies in the textbook and added some of the unfamiliar for Year 3 pupils such as in the middle of, along and onto which is not included in the textbook. Plus, the examples are in form of images and sentences in the context to polish their understanding.

Thirdly, I also created my own game such as the AR game using the Cospaces Edu as my platform for the advance learners and assessments using Quizziz to evaluate the effectiveness of the app. There are some responses that satisfy with the intervention and like to play it again. This feature differs my app from the other as it incorporate the latest technology in aiding the lesson. It is fun, adds more excitement and also meaningful. The immediate feedback from the quiz will surely let them know their strengths and weaknesses based on their answers. The assessment also have two different levels which are novice as they have reviewed the notes and the advanced part as they have master the fundamental concept of preposition.

SpeMal (Spell the Animal) Application

Nur Nazihah binti Ahamat Mahmod

PISMP BI2 Jun 2017

SYNOPSIS

"SpeMal" is an app that uses Thunkable as the main platform that link with other websites such as CoSpaces Edu and quiz-maker.com. "SpeMal" app provides an input to pupils through CoSpaces Edu which is a digital app that allows the teacher to integrate augmented reality (AR) and virtual reality (VR) in the lesson. This will create fun and interactive lesson as it is rare opportunity for the pupils to experience AR and VR. The students will learn about two types of animals which are jungle animals and farm animals. Plus, the pupils will also learn sounds of the animals and pronunciation of the animals through CoSpaces Edu.

Other than that, "SpeMal" also provides few activities for the pupils to enjoy. The activities are sing a song, colouring, read a story and spot differences between two images. These activities are related to animals and linked to other websites. After that, they need to answer three different quizzes and time allocated for each quiz is five minutes. Once they finished answering the quiz, they need to type down their marks on provided space.

OBJECTIVES

- To overcome spelling problem among the Year 2 pupils as their marks from post-test is 30% higher than pre-test.
- To integrate 21st century skills such as collaboration and creativity.

INNOVATION ASPECT

Spelling errors are highly ubiquitous and contentious features of Second Language learners' written performance (Botley & Dillah, 2016). With reference to the Malaysian education system, English is placed as The L2. Malaysia is a multi-ethnic country that consists of various races such as Malay, Chinese, India and *Iban*. The pupils' first language depends to their ethnicity which they use it in their daily conversation and they learn English language formally when they entered primary school. This have been affected their learning English language because the pupils tend to find the correlation between their first language and English language.

One of the aspects in English language that has been affected is spelling. Most of the pupils are incline to spell English words using their first language enunciation. Hence, this innovation is focuses on improving spelling of animals' name.

Figure 1: Introductory of the application

ADVANTAGES OF INNOVATION

There are two impacts of this innovation towards the pupils which are they can expose to salient technology for education and improving their spelling. This innovation is compromises from few applications and website which are CoSpace Edu and Thunkable that are accessible and free. They can use those applications for education purposes in future. Continue, main objective for "SpeMal" is to help pupils with low ability in spelling specifically animals' names. The audio of animals' name will assist the pupils to enunciate the animals' name correctly. Other than that, there are some interesting activities in the application such as read a story and sing a song. Lastly, this application will evaluate pupils' comprehension and understanding as there will be three quizzes inside the "SpeMal" application. Towards the end of this innovation, the pupils can at least spell two animals name in the "SpeMal" without error.
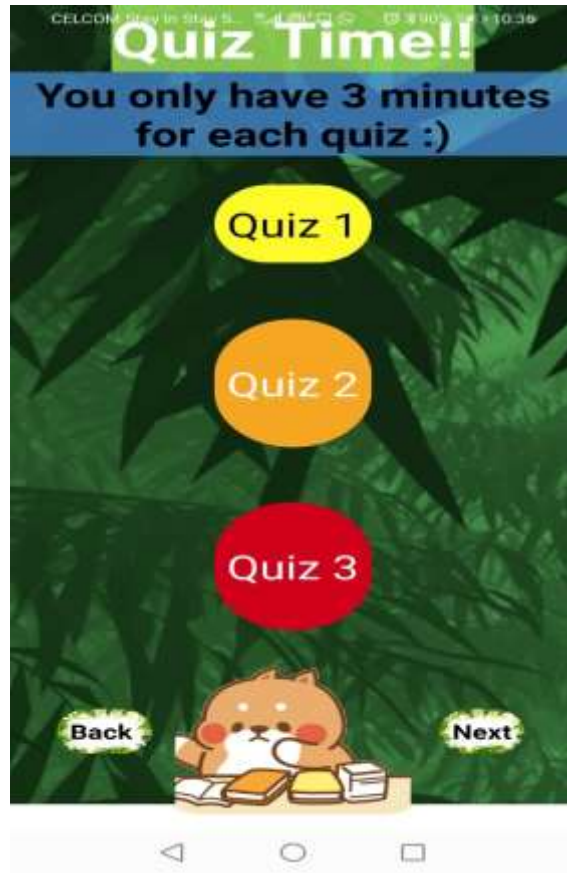

Figure 2: Activities in the "SpeMal" application

Figure 3: Quizzes with different level of difficulty in the "SpeMal" Application

Figure 4: Scene with animals' name and their audio

SUCCESS OF INNOVATION

There are three dimension of evaluation that I focused on which are graphic, functionality and technical characteristics. All the data collected will be analyse and discuss in this paper. I am using surveymonkey.com as a platform for me to get ret evaluation from my friends. There are 10 questions that need to be answered.

The first dimension is graphic. From Mayer (1997) study finding, for search ways to help students understand scientific explanations, they have come to rely increasingly on what has been called multimedia learning, through presenting explanations visually as well as verbally. Multimedia learning occurs when students receive information presented in more than one mode, such as in pictures and words. Graphic is vital for helping pupils understand more about the animals and attract users or pupils' attention. Some of immediate feedbacks that I got from my friends are the graphics that I used for animals look realistic and the colour of my application is vibrant. Figure 5 shows the average rating that I got for my graphic which is 3.4.

Figure 5

Second dimension is functionality of my application. Figure 6 shows that all the respondents agreed that "SpeMal" is easy to understand, learn and use. This is because the instructions in the application are complete, accurate, comprehensible and easy to understand as it can be seen when all respondents agreed to question number 4 as shown in Figure 7.

The app is easy to understand, learn and use.

Figure 6

The instructions in the app is complete, accurate, comprehensible and easy to understand.
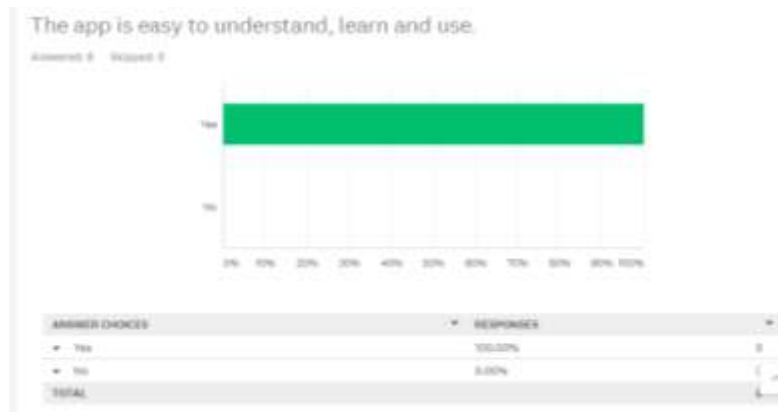
Figure 7

For question number 3, three respondents agreed that the pupils will need support by the teachers for app used while the other five respondents agreed. Figure 8 shows the result for question number 3. One of the respondents said some pupils will need to be assist because they might not know how to go back to the "SpeMal" once they finished answering the quiz on other platform. Therefore, they suggested me to create quiz on "SpeMal" itself.

The pupils will need support by the teachers for app used.

Figure 8

The third dimension is technical characteristics in the "SpeMal". Based on the questions regarding technical characteristics, most of the respondents rated it as a great application. The results are shown in Figure 9, Figure 10 and Figure 11. However, there are some respondents complaints that when they want to enter "CoSpace" one of the platform that I used in "SpeMal", it takes time. This is something that I cannot control as it is beyond my power.

Figure 9

The app does not have advertisement which will disrupt child's attention.

Figure 10

The app enable social interaction between the teacher and pupils.
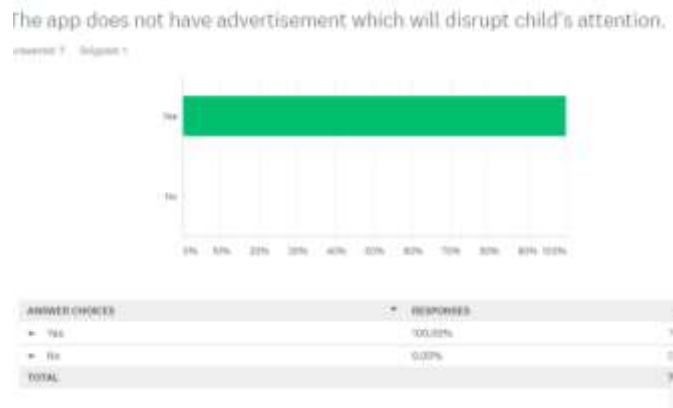

Figure 11

Conclusion, "SpeMal" received good response from respondents. However, there are few aspects that should be improved as recommended from my respondents which are should add more interactive activities between the pupils and the teacher and should add offline games.

Adjectivities application

Nur Wayumie Binti Rosli

PISMP BI2 Jun 2017

SYNOPSIS

Adjectivities is an application that promotes fun learning through the use of games and quizzes. The name "Adjectivities" mainly focuses on learning adjectives as it combines two words which is "adjectives" and "activities". Inside the app I have created four fun activities that can help learner to enhance their use of adjectives in a sentence. The first activity is True and False game, where pupils need to read a short story about "A boy who cried wolf" and select whether the adjective is correct based on the story. Next, the second activity is "Let's guess the Adjectives" where pupils will watch a video linked to Youtube and guess what are the adjectives that can be found in the video. The third activity is the "Matching Game" where pupils need to look at the pictures given and match the correct adjectives based on the picture. The last part is the assessment, where pupils can write at least 10 sentences using the given adjectives. In the assessment part they can see what level and how well they have improved throughout the games.

OBJECTIVES

➢ Promotes fun learning activities.

➢ Enhance pupils ability to learn adjectives.

Adjectivities is an app that promotes fun learning activities to the pupils. Using games as an approach to help pupils learn adjectives is one of the ways to enhance their skill in learning English. Byrne (1995) gave the definition to games as a form of play governed

by rules. They should be enjoyed and fun. They are not just a diversion, a break from routine activities, but a way of getting pupils to use the language in the course of the game. This proves that, a pupils learns more when there are a lot of fun elements.

Lastly, this app also helps enhance pupils ability on getting to know adjectives and its meaning. Not only that, this app also teaches pupils on how to use a correct adjectives in sentences so that they can learn English more effectively.
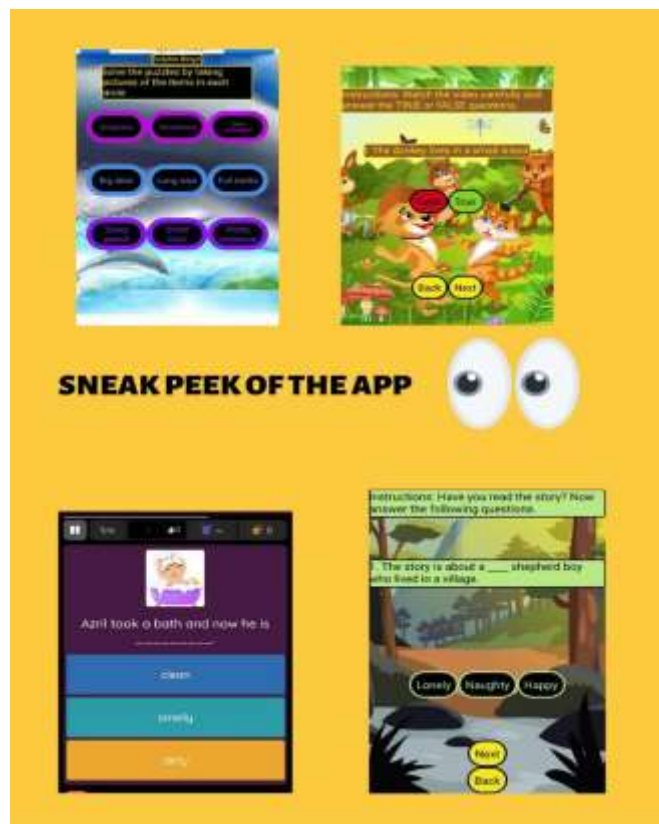
INNOVATION ASPECT

Learning adjectives can be confusing and hard for some pupils as they are finding a suitable adjective words to fit into sentences. As an example, during my practicum phase one in SK Mata (pseudonym), I found that pupils are easily bored when teacher only give them worksheets to complete tasks, however they become energetic and excited when I conducted games related to topic taught during the day. From this I am able to detect that pupils learn most effectively through hands on activity that has a fun elements. Not only that,I have encountered three pupils who are weak in learning adjectives. They could not differentiate adjectives with nouns and verbs. They are unable to cope with my teaching in class as I try to explain to them the examples of adjectives. However, when it comes to playing games, they could get a hang of it and could give simple answer. Not only this makes learning fun for the pupils, they are able to learn from it indirectly. According to Richard-Amato (1996), even though games are often associated with fun, we should not lose sight of their pedagogical values, particularly in second language teaching. Games are effective because they provide motivation, lower students' stress, and give them the opportunity for real communication. Thereby I have come up to an idea where pupils can practice their use of correct adjectives in a sentences through the use of games. Not only that, this exposes the pupils to the use of ICT in the classroom.

ADVANTAGES OF INNOVATION

Some of the advantages of this app is it can be widely use for teachers to teach pupils especially the Level 1 pupils on adjectives. It can be seen that games are very useful and can be used to develop students' language learning and also provide the students an opportunity to practice communication. Through the games promoted in the app it will help pupils to get to know the adjective words and its meaning well. This is so that pupils are able ease their process of understanding meanings of adjectives when they play the games and they can create proper sentences using the correct adjectives during the assessment part. Schultz (1988) said that "...Stress is a major hindrance in language learning process. This process [Learning language in traditional way] is by its nature time consuming and stress provoking and raise the stress level to a point at which it interferes with student attention and efficiency and undermines motivation. One method has been developed to make students forget that they are in class ....relax students by engaging them in stress reducing task (games)." This is so that pupils can learn in a more relaxed and stress-free environment.
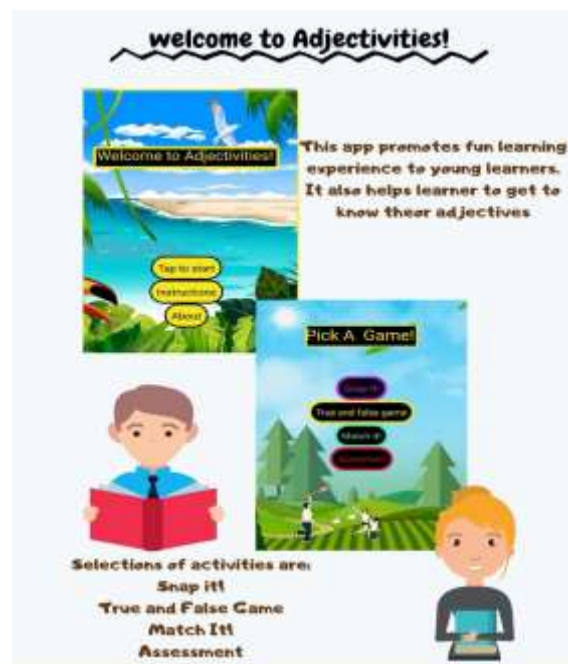
Menu page of the 'Adjectivities' application

Activities promoted in the application: Snap it!, True and False game, Match it, and the assessment

SUCCESS OF INNOVATION

From the aspect of teaching and learning, the app is effective in helping pupils who has problem with using a correct adjectives in simple sentences. Not only that, the application is created in a cheerful manner and it offers the element of fun through the variety of games and activities promoted in the application. In the app, there are four activities that pupils can do and they can choose any activities that they want to do. Furthermore, I have added videos where pupils can watch a story and use the story as a reference when they do the activity. Overall, the content of the whole application is suitable for Level 1 pupils because it is easy for them to understand. And last but not least, the teacher also can use this app as a tool in class to teach the pupils on adjectives. This will surely ensure the teachers variety method of teaching.

Vocabuzz

Nurul Syafierah Binti Noh

PISMP BI2 Jun 2017

SYNOPSIS

Vocabulary learning has become a problem due to teacher's low confidence to decide the effective way to learn vocabulary and pupil's low interest. Game playing is another popular way to engage learners in language learning. Therefore, I have chosen to produce a vocabulary learning platform through games as it attracts pupils interest to learn.

My application named "Vocabuzz" is an interactive learning platform especially for the lower primary pupils. I am going to use "Thunkable" as my main platform to create this application. This gaming platform consists of vocabulary listed in the CEFR syllabus for Year 1 until Year 3. It uses the elements of audio and visual to aid in comprehension of the words. Besides introducing words, my application also introduces and demonstrates the use of the vocabulary learned in simple sentences. The application includes activities such as matching, guessing, reading, revision and assessments to evaluate whether learning has taken place. By using such elements, it can attract pupils' attention and improve their vocabulary retention. However, this gaming application also has some limitations in which it may not cover a broader definition of the words as it mostly uses word-picture association technique. English is an arbitrary and flexible language, so, some words may have shifted in meaning through time and may have different meanings. This application cannot cater to a broader definition of the words but is sufficient to prepare the pupils for classroom based activities.

OBJECTIVES

The objectives addressed in this proposal are   :

i.To develop lower primary pupils vocabulary

ii.To help pupils learn vocabulary through word and picture association

iii.To help teachers by providing an interactive teaching and learning platform for their teaching and learning activities

INNOVATION ASPECT

As aligned in the National Education Blueprint 2013, the implementation of the new Common European Framework of Reference (CEFR) aligned curricula started from 2017. Based on the latest CEFR syllabus used for lower primary pupils, it requires the pupils to communicate a lot in the language, thus they need to have the vocabulary needed to converse. The pupils have low vocabulary range and low interest in learning vocabulary because they have to memorize spellings and meanings of unfamiliar words. Not only that, teachers are not confident to form an instructional emphasis on word learning. In this proposal, I will investigate the use of vocabulary games to improve lower primary school pupils vocabulary learning.

The problems identified are :

Low range of vocabulary

The pupils have low confidence in learning English because they have insufficient vocabulary. Without the vocabulary, the pupils were unable to converse in the target language whether spoken or written. This problem hinders the pupils from developing an interest to learn English in the classroom.

Difficulties in choosing the right learning pedagogy to teach vocabulary

Teachers also faced problems in teaching vocabulary to the pupils. There is no definite answer about the pedagogy that is best to be used to teach vocabulary. However, it is important for the teachers to have a sufficient aid and an interesting platform to help attract the pupils' attention during teaching and learning session.

Figure 1: Vocabulary content   Figure 2: Games in Vocabuzz
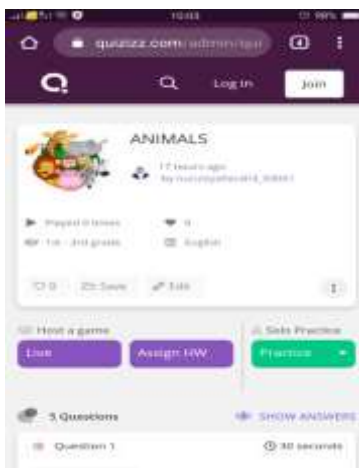
Figure 3 : Assessment

ADVANTAGES OF INNOVATION

Wood (2001) investigated the use of learning games as a learning tool and concluded that game-like formats could be more effective at capturing learners' attention than traditional media such as textbooks. Not only that, the appropriate use of sensual stimuli is believed to be beneficial to learning, not only for ordinary learners but also for learners with learning difficulties (Schmidt, 2005). Taylor (1990) added that 'a combination of stimuli is desirable, with written consolidation for adults, in order to facilitate transfer from short-term to long-term memory' (p. 17). Heidemann (1995) expressed a similar view in

relation to three main concerns guiding the design of the visual materials on learning web pages, namely learner-oriented principles (e.g. maintaining learner motivation), picture features (e.g. presenting vocabulary items in semantically related groups) and picture functions (e.g. pictures are remembered better than words and can therefore act as mediators of new knowledge). Based on the above statements, it can be concluded that learning vocabulary through games have many benefits and is supported by many relevant researchers as mentioned above. Since my innovation project featured the elements of audio and visuals, it can help to bring benefits to the pupils.

The benefits of using "Vocabuzz" are :

    i.   Improving classroom teaching and learning strategies

    ii.   Improve pupils vocabulary range

    iii.   Improves understanding of words through word-picture association

    iv.   Appealing to young learners

    v.   Easily accessible with internet connection

SUCCESS OF INNOVATION

According to Ranalli (2008) computer games could theoretically provide several language learning affordances described in the literature on second language acquisition and a growing body of empirical data on game-based approaches showing improved retention of learned words supports this notion. There are two groups that may benefit from this digital innovation project. The first group is the pupils themselves where they learn and improve their vocabulary through games. The second group is the educators where they are able to implement fun learning approaches instead of memorizing approaches and ease their burden economically.

A questionnaire had been given to the users after they have used the "Vocabuzz" application. The questionnaire is a series of question that the users need to rate using likert scale. The usage of application is shared among my classmates to test the

effectiveness of the application. Not only that a survey has also been conducted on Instagram and Twitter. The findings will be presented in graphs and pie charts following the characteristics such as content, learnability, remembrance and satisfactions.

Effectiveness of the Application in Terms of Content

	Question 1	Question 2	Question 3
■ 5	11	11	13
■ 4	4	4	2
■ 3	0	0	0
■ 2	0	0	0
■ 1	0	0	0

Number of Responses
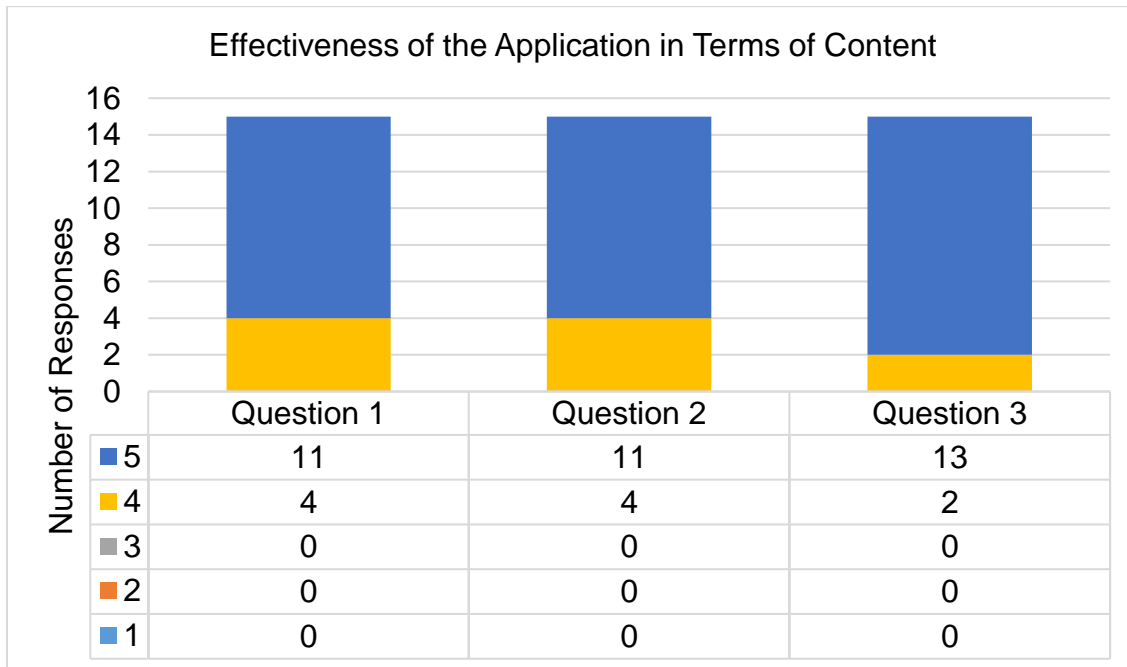
Based on the graph above, it shows that 73.3% of the respondents rate the relevancy of the content and the sufficiency of the content with 5 and 26.7% of the respondents rate it 4. Next, there is a higher rating for the reliability of the content where 86.7% of the respondents gives the rating of 5 and 13.3% of them gives the rating of 4.

Effectiveness of the Apllication in Terms of Learnability

	Question 4	Question 5
5	10	10
4	5	5
3	0	0
2	0	0
1	0	0
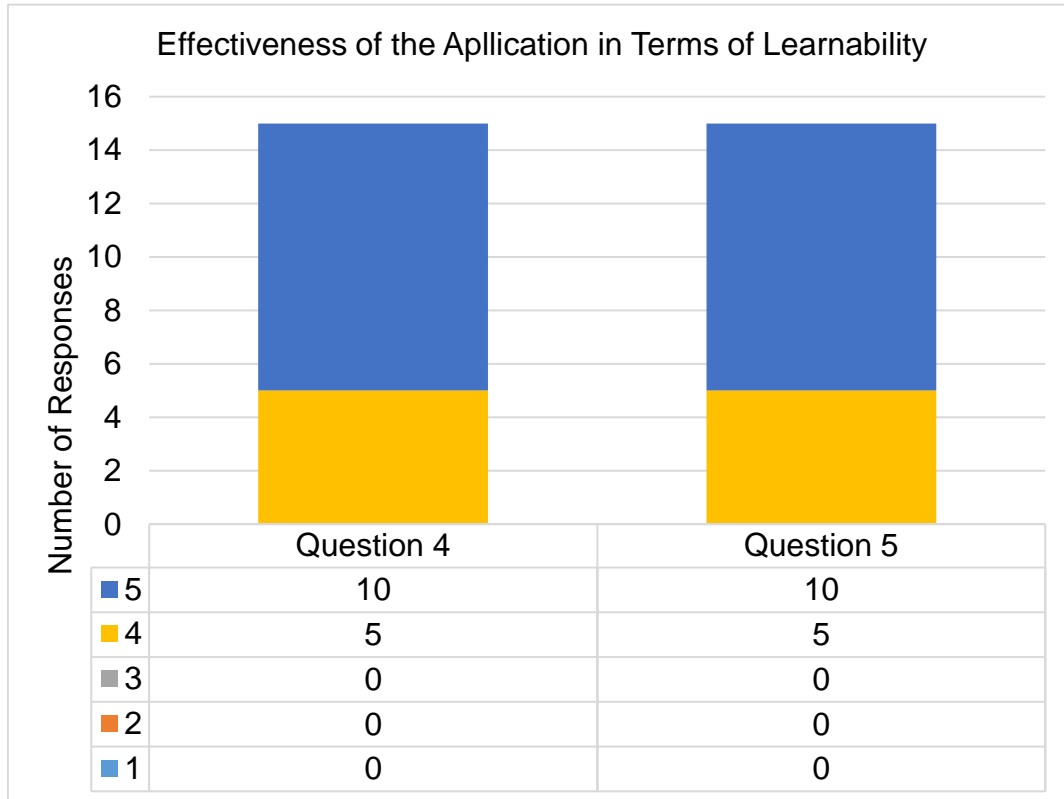
Based on the graph above, it shows that 66.7% of the respondents rate the easiness to control the game and the mastery of the method to control the game as 5 and 33.3% of the respondents rate it 4.

Effectiveness of the Apllication in Terms of Remembrance

Number of Responses	Question 6	Question 7
■ 5	10	9
■ 4	5	6
■ 3	0	0
■ 2	0	0
■ 1	0	0
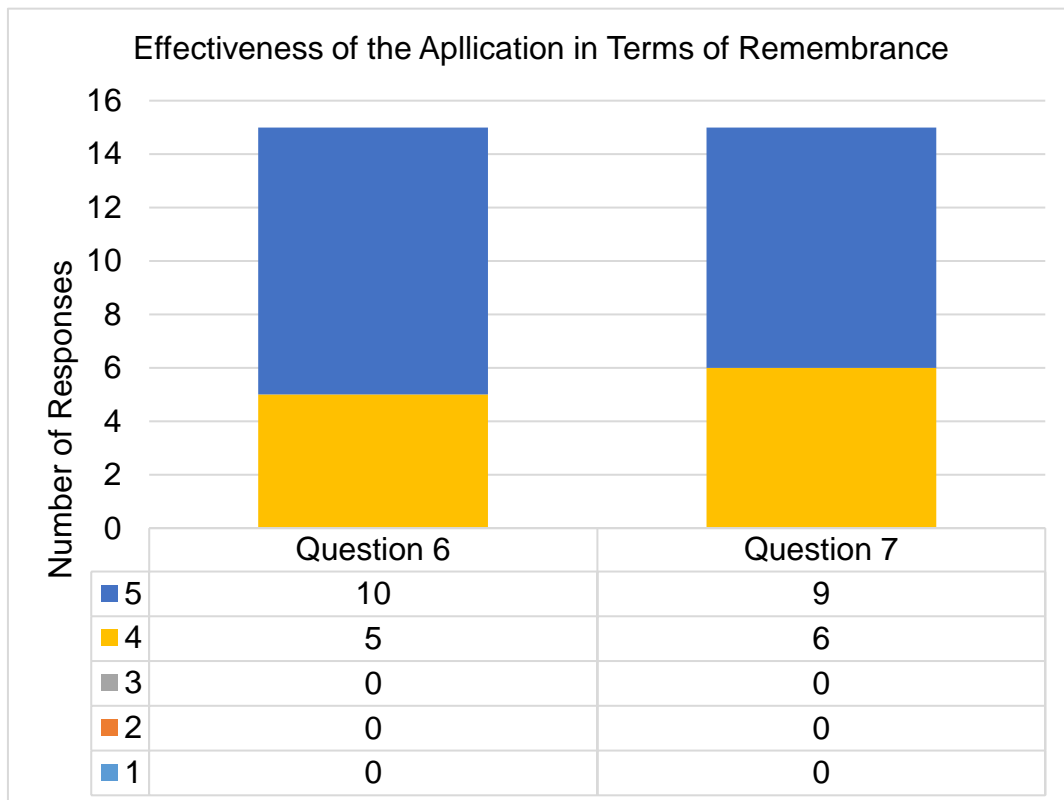
Based on the graph above, it shows that 66.7% of the respondents have strongly agreed that the application helps them to acquire vocabulary while the other 33.3% gives the rating of 4. For the question on the effectiveness of the application to help them memorize vocabularies using the application, a total of 60% respondents strongly agree and the remaining 40% gives the rating of 4. It means that the application does help pupils acquire vocabulary but is less effective in helping them to retain the information.

Effectiveness of the Apllication in Terms of Satisfaction

	Question 8	Question 9
■ 5	9	9
■ 4	6	6
■ 3	0	0
■ 2	0	0
■ 1	0	0
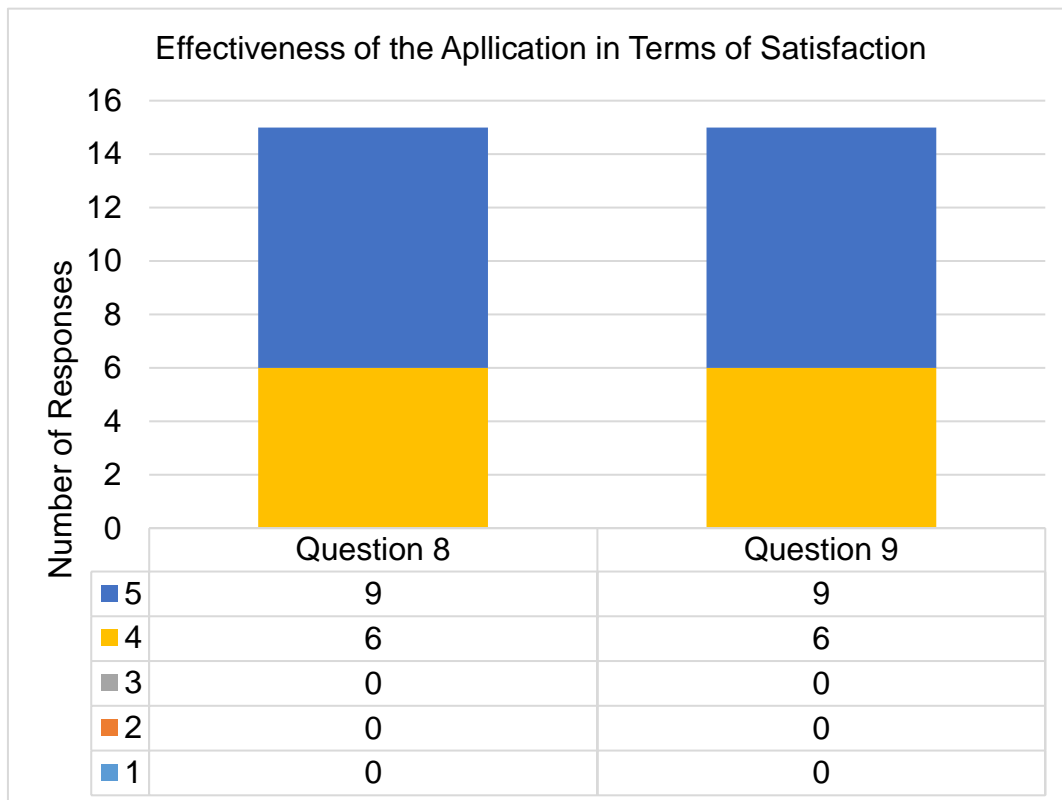
Based on the graph above, it shows that 60% of the respondents gives the rating of 5 and 30% gives the rating of 4. From this results, it can be said that the respondents finds the application less attractive due to the lower rating compared to other aspects. Based on the analysis of the questionnaire, there are some improvements to be made in the applications. Most of the respondents advised me to include more interactive games and add background musics while using the app. I acknowledged that my application is lacking audio elements. Therefore, I believe that by adding some background music will help to increase the enthusiasm of the users. Not only that, more interactive games may be added to improve the content of the application. Tamah (2007) argues that "in classroom interaction, students use language to negotiate meaning. They get the chance to make use of all they have of the language. This implicitly means that it is crucial for the teacher to provide more chance for the students to interact for the sake of real-life exchanges" (p. 6). Based on the statement, interactive games is beneficial for pupils as it provides a platform for them to practice their knowledge. Other than that, I should also

provide flashcards of the synonyms and antonyms or the adjectives associated with the words introduced to richer with contents.

In conclusion, the application does help both pupils and educators in the teaching and learning practices especially on vocabulary. However, there need to be some improvements to further increase the reliability and validity of the apps.

VocApp Application

Rabiatul Adawiyah Zulfikar Rajamohan

PISMP BI2 Jun 2017

SYNOPSIS

During my first phase of practicum, I was assigned to teach English Language lesson to Year 2 pupils. Throughout numerous lessons conducted in the class, I recognised that majority of the pupils had trouble learning and understanding the language specifically in vocabulary. Hence, I have decided to create this application called VocApp aimed to help and aid the Year 2 pupils to strengthen their vocabulary especially among the low proficient pupils.

In developing this innovation item, it may help the young learners to comprehend the words they are learning. Since some of the contents in this apps are based on primary Year 2 vocabulary by category which are animals and clothes while the topic fruit is also introduced to them, it may help to build and strengthen the learners' knowledge of vocabulary aiding by music, visual and engaging games that are provided to them.

Furthermore, it is more efficient in term of time management whereby the students as they need also need to allocate their time for other subjects. Next, it is aimed to promote multiple intelligences so that it is exploited well using the product that is invented. Lastly, majority of the pupils have the access to electronic devices thus, in terms of practicality, this innovation can be applied in their daily life.

OBJECTIVES

The purposes of creating this digital platform are to:

● build and strengthen the young learners' vocabulary aiding by music, visual and fun games.

● help learners identify the correct spelling of words and use them accurately.

INNOVATION ASPECTS

VocApp application is meant to help pupils who lack vocabulary. Some of the weaknesses leading to the problem are:

- Pupils are not able to find the right word or adjective to describe an object, animals or people.
- Poor spelling skills.

With the elements comprises in the application such as notes, practices, learning materials in the forms of video, music and visual, it will aid the pupil to be exposed with adequate vocabulary. Furthermore, it also includes fun games and activities and assessments in the form of quizzes.

ADVANTAGES OF INNOVATION

In building up this product, it may assist learners specifically low-proficiency pupils with acquiring the vocabulary in English Language learning. In this 21st century, young learners have easier access to electronics devices such as smartphones and tablets. With technology, they can have access to knowledge at any time. Using this vocabulary-building app provides them opportunity to memorise words and practice at a convenient time. Apart from them, the app helps to boost their memory with the fun games available in the app. Huyen (2003) identifies the advantages of using games to learn vocabulary which is games add relaxation and fun elements, so the learners retain words more easily. For instance, with the aid of images in the context, it will also help retain their visual/spatial skills longer said Gardner (1983).

A study by Akdogan (2017) found that his findings suggest that the use of games in foreign language learning may benefit the process in many aspects such as memory of vocabulary. The results proved that the occurrence of memorize is improved with games.

Therefore, if a learning takes place in a stress-free environment, the learning outcomes will be high. This is further supported by Attractive Filter Hypothesis by Stephen Krashen (1988) who mentioned the lower the filter (anxiety, fear, boredom during learning), the higher the input they will allow into their language acquisition. With this app, learners can learn through their mobile devices and play fun games and quizzes that are available in the app anytime and anywhere.

SUCCESS OF INNOVATION

Among the feedbacks that I received through the survey, majority voted that the content available in VocApp was able to help learners learn vocabulary better when the teaching materials are presented in various ways such as sound, video and through pictures. For instance, through the "video" of "Animals and Their Homes" that I created in Scratch, the animal homes flashcards and the Youtube video. Next, the data collected showed it can help learners have a wider range of vocabulary easily through an English mobile app and they can test their vocabulary knowledge in a fun and less stressful environment. For example, it can be achieved through the games available in the app and the quizzes with background audio and image that provides instant feedback to the learners. Besides, majority also agree that this app is suitable to be recommended to their friends for vocabulary-learning purposes and is suitable for young learners as it provides fun elements in the activities to engage the learners with the content effectively.

Learning Subject-Verb Agreement (SVA) Using Gram It Right! App

Siti Nur Rasyidah Binti Razali

PISMP BI2 Jun 2017

SYNOPSIS

Gram It Right! app is designed to improve pupils' ability to use subject-verb agreement (SVA) correctly when writing sentences. This app is created using Thunkable, a mobile learning for students and educators around the world. I used Thunkable because I want pupils to be able to use my app in the most convenient way which is through mobile app. Gram It Right! app offers many interesting information about SVA. There are four rules of SVA in the notes, few videos linked from YouTube, three online games and quizzes provided to make learning extra fun and enjoyable.

OBJECTIVES

The objective of digital innovation; Gram It Right! App is:

i)   To identify the effectiveness of Gram It Right! App in improving pupils' ability to use subject-verb agreement (SVA) in writing sentences correctly

ii)   To identify the effectiveness of Gram It Right! App in helping teacher in the teaching and learning of subject-verb agreement (SVA) in writing sentences correctly

INNOVATION ASPECT

The Gram It Right! application was created to help and aid pupils that were having difficulties in using the correct subject-verb agreement. Some of the factors that could lead to this issue are:

1. Pupils were having difficulties in constructing sentences using matching subject and verb (subject-verb agreement).

2. Pupils tended to construct sentences by referring their first language sentence structures which has huge differences in the structures.

Gram It Right! app offers many interesting information about SVA. Starting from input of the rules of SVA in the notes, videos linked from YouTube to help them understand and

visualize the notes, three online games to practices using the correct SVA and quizzes to access the pupils in more fun and relaxing way.
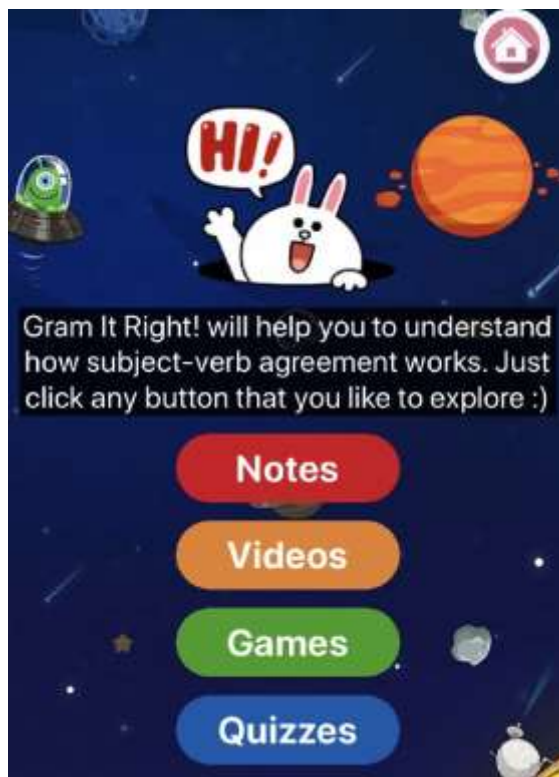
Figure 1: The outline of the contents for the app

ADVANTAGES OF INNOVATION

The Gram It Right! application will aid pupils to learn the subject-verb agreement (SVA) in a more fun and relaxing way. It will be beneficial for both pupils and teachers in teaching and learning lesson. Jenkins (2017) mentioned that online learning creates flexibility by eliminating the need for learning to happen at a set time and a set place. Pupils and teachers will be being able to access this content on their mobile devices whenever and wherever they want. Learning can also become more meaningful as it involves images, games and videos help pupils to understand what and how SVA works. Besides, videos and colourful images in the app may enhance pupils' interest in learning the topic and helps teacher to create a dynamic and engaging learning experience besides having fun, interactive and interesting lesson.

These are some of the features inside Gram It Right! application:

Figure 2: Content of the Gram It Right! application

Figure 3: Links to YouTube videos of SVA

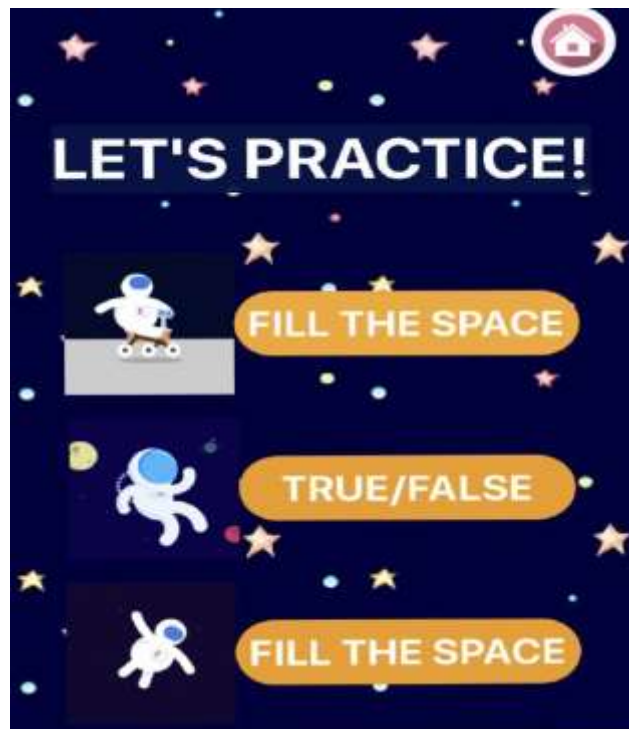Figure 4: Games for pupils to practice using the correct SVA

Figure 5: Quizzes to access the pupil's understandings on SVA

SUCCESS OF INNOVATION

As for the aspect of teaching and learning, the application is quite helpful for both pupils and teachers. This is because this app creates a flexible medium for teaching and learning to happen at any time and anywhere. In addition, the contents are proven organized, allowing easy navigation. This is because the text, graphics, videos, and speech are placed accordingly. This defines why the users did not need guidance during the test-run. They also mentioned that the instructions given in the app were easy to understand but the transition of the content needs an improvement.

Besides, the users find the application very helpful to ease their understanding of SVA. This type of learning is more that using textbook as it is an ideal way to expand various abilities of pupils. By using this application regularly makes the pupils become more confident in handling other technology tools as well as gadgets.

On the other hand, this application requires a smaller amount of cost. Internet is needed in the process of creating this application so I had to use some money to buy mobile data to have access to the Internet. So, the users will need to have Internet access to be able to use the application.

Investigram Application

SARAH SULO RAWLINSON

PISMP BI2 Jun 2017

SYNOPSIS

During practicum, I went to an urban school consisting of not more than 300 students. This is because the school only provides one class for each year which means there is only one class for Year 1 until Year 6. Therefore, during practicum I was given the opportunity to teach English subject for Year 3. One of the major problems that I had been facing throughout my practicum is the inability of most students in using the right tenses especially simple past tense and past continuous tense. According to Abdulmalik & Abdullah (2017), English subject are always seen as difficult, confusing, implicated and unfamiliar among students. They also stated that schools are usually focusing on important subjects such as Mathematics and Science which makes students to not have motivation in learning English such as tenses. Thus, the application named Investigram is created to help students to understand the concept of tenses. The name is made by combining the word Investigation and Grammar. The reason why I have chosen to create this application in teaching grammar is because it will make the students to be more motivated in learning thus making them able to retain information (Costley & Kevin, 2014). The application will include games based on BINGO and an investigation game where the inputs of grammar are focusing on past tenses. At the same time, assessments through an online quiz will also be provided after the students play the games.

OBJECTIVES

1. To create a learning platform that provides the information as well as the assessment.

2. To create fun and meaningful learning.

3. To promote the use of the 21st century skills which are 6cs. (Character building, Critical thinking, Collaboration, Communication, Creativity, Citizenship)

4. To provide an easy method and access for pupils to study past tenses.

INNOVATION ASPECT

The first game which is "Get Loose with Simple Past" targets to help students revise back on the concept of past tenses. After that they would go through another game based on investigation which is more to testing out their knowledge for past continuous tense. In addition to this, the investigation game will be in the form of Augmented Reality (AR) in order to develop students' observation and communication with the real world (Carmigniani & Furht, 2011). Basically, this application is created based on inductive learning which is a method where the teacher begins by giving students with a specific challenge. According to Prince and Felder (2007), students are given a challenge and they need to deal with the challenge on their own while teacher only acts as the guidance. After that, students will indirectly realise the need for facts, skills or conceptual understanding to solve the challenge. Therefore, the students will gain their understanding of the knowledge by playing the games in the application and their understanding will be strengthen through the assessments.

Figure 1: Interface of application and summary of content

Figure 2: The first game that will help students to revise on the concept of past tense.

Figure 3: Investigation game that will focus more on the concept of past continuous tense.

ADVANTAGES OF INNOVATION

According to Lazar and Stosic(2015) educational technology provide access to students to learn independently, carry out the activity according to their own pace, repeat process of learning and get immediate results after the assessment. Therefore, this application provides all the benefits to the students as they get to use it independently, play the investigation games without feeling pressured and see their progress in learning through the immediate results from the assessment. Other than that, since the investigation game will be created based on discovery learning, it gives the opportunity for students to construct their own knowledge or understanding through the activities and observations (Balm, 2008 as cited in Feriyanti & Dwiningsih, 2018) Therefore, they are able to learn more effectively as they become the creator of their own knowledge and understanding. Furthermore, according to Yaccob and Yunus(2019), the real-life experiences in the games act as a mean to enhance students' language skills and confidence when dealing with common and various occasions. In this context, this application which includes the Augmented Reality will help the students to practise some of their language skills such as reading, writing and speaking since AR provides real-life situations. At the same time, they have the confidence to use these skills since they can use the application independently which could avoid them the feeling of being judged.

Figure 4: BINGO game that will help students to identify the simple past tense.

Figure 5: Augmented Reality game to make students' experience in learning more realistic by learning independently and create their own understanding.

SUCCESS OF INNOVATION

Basically, the assessments were created in order to evaluate the effectiveness or the success of the digital innovation. In the online quiz, there were 8 objective questions in total while for the written assessment they were 8 structured questions. For the online assessment, it was included in the application where the students need to do an online quiz after they have played the games in the digital application. Meanwhile, for the written assessment, they need to answer it also after they are done with the online quiz. These two types of assessment were used in order to evaluate their understanding on the Simple Past and Past Continuous in written form. Based on the results of the first assessment which is the online quiz, most of them could get 5 out 8 answers correct. The lowest mark that one of them had gotten was 6 out of 8 and the highest was 8 out of 8. Not only that, they could also answer the question based on the two types of past tenses. At the same time, they could also answer most of the questions in written assessment correctly. Since there were also 8 questions in total, the lowest marks that they got was 5 out of

8 and the highest was 7 out of 8. Therefore, based on the results from both types of assessment, the digital application was considered effective as the results from the assessment could pass the passing marks. The fact that the participants were able to answer half of the questions correctly shows that the digital application have helped them in understanding the two types of past tense which are simple past and past continuous tense.

At the same time, when the students played the game after watching the video, their interest level seemed to increase as they were eager to find the sentences in simple past tense. In the second game which is the investigation game, most of the participants were very excited during the Augmented Reality game where they were required to find the evidence since they had never tried augmented reality based game before

Last but not least, the cost of development for this application is not much. However, it requires internet connection so I need to purchase mobile data to build it. To use this app, the students would only need a hand phone and internet connection.

NounVenture

Wafa Irdina Iman Binti Azham

PISMP BI2 Jun 2017

SYNOPSIS

NounVenture offers a lot of interesting activities for fun learning approach that covers various skills namely writing, listening and reading. NounVenture aims to develop pupils' mastery in identifying nouns. The components included in NounVenture are basic information of nouns to test pupils' level of knowledge about nouns, a video about nouns to boost interest, quizzes and trivias for pupils to answer and a virtual world for pupils to explore in order to enhance their learning experience. NounVenture includes a myriad range of media such as Cospaces, Scratch and Youtube. Virtual Reality (VR) that is incorporated through Cospaces promotes an immersive and engaging experiences in education. Steinicke (2016) contented that through VR, users can experience adventures in a perfectly simulated world. It is essential that I incorporate various platforms into one application as it would allow pupils to learn about nouns from different views and ways.

OBJECTIVES

The objectives of this project are as follows:

1. Pupils of will be able to acquire 3 new nouns.

2. Pupils will be able to identify 5 nouns correctly.

INNOVATION ASPECT

The purpose of NounVenture is to enable pupils to learn in various ways, gain knowledge and have a better understanding about nouns. Nouns play such a significant role in delivering a cohesive function in order to form a coherent text. In English, many words can be used as both nouns and verbs, which can cause problems for young learners to learn the grammatical properties of nouns. Nouns can appear as subjects of verbs,

objects of prepositions, indirect objects in various contexts. It causes pupils to have problems in distinguishing nouns in sentences, leading to errors when trying to complete an activity of identifying nouns.

In order to overcome these problems, NounVenture is a good alternative. It is cost effective and allows users to easily access to the application for free through their gadgets. Ludwig (2012) stated that mobile apps becomes increasingly popular as the usage is becoming significantly prevalent for mobile phone and tablet users. This is why I chose to Thunkable as a medium to create an interactive application which I named NounVenture as it is free to use and I can incorporate various media into Thunkable. Through NounVenture, pupils can learn in various ways and gain knowledge about nouns.

ADVANTAGES OF INNOVATION

NounVenture allows users to have an advanced experience in learning nouns as it involves Virtual Reality (VR), video, audio and visuals. The innovation of NounVenture aims to give positive impact to the users in terms of their awareness of the importance of digital learning as a tool for fun learning activities, particularly in learning about Noun. After the implementation of NounVenture, users ought to have a clearer idea and understanding of what noun is. It should enhance users' experience in learning through various media. It also serves to prepare users in an education world where technology is inevitable.

SUCCESS OF INNOVATION

After having some people test NounVenture, several positive feedbacks and suggestions were received. Users agree that NounVenture is helpful and relevant for young learners to identify nouns in different settings which indicate that NounVenture has a huge potential in achieving the objectives that have been set which supports the effectiveness. On top of that, the quizzes in NounVenture allows users to see their mistakes, which allows for learning.

In addition, the virtual reality feature that is incorporated in the application excites the users and encourages participation as it provides an experience that users seldom come across. The variation of visuals and colors enhances user experience as it does not bore them with dull and plain pictures.

The Virtual Animal Exhibition that is included in Cospaces is a good medium for users to learn about not just nouns, but also animals and their young. It covers a lot of information namely the place that the animal lives in, the young and what they eat. For young learners, these information are essential not only to improve understanding in nouns but also to raise awareness and develop love for animals since young.

To summarize, there are a lot of advantages that can be drawn from NounVenture. Nonetheless, a lot of improvements have to be made for NounVenture to ensure that users have the best experience when using this application. Furthermore, with improvements, young learners will get to learn nouns better.

GRAMMARRUN

Wan Ezmin Izzati binti Wan Azhar

PISMP BI2 Jun 2017

SYNOPSIS

In this era emerging with technologies, teachers have to come up with different strategies and techniques to instil pupils' interest in learning. Pupils are assumed to be a special group since they are in the period of their lives in which they go through a constant cognitive, emotional and social phase. Young learners are different from adult learners because they learn indirectly and holistically rather than directly and explicitly. Thus, young learners seem to pick up knowledge embodied in meaning and purposeful language actively without focusing on the language itself so meaningful use of language should take place for acquiring English language skills to happen (Zheng et. al., 2009). Grammarrun is an online educational app developed to help pupils learn basic English language skills at home. The main purpose of this innovation is to focus on helping pupils learn basic English basic grammar at the comfort of their homes.

OBJECTIVES

My main objective of this innovation is to provide an English language learning platform that can be utilized anywhere and at any time using a portable electronic device. Pupils are able to revise their basic grammar notes with a fun and easy way. Moreover, pupils are able to test their current grammar understanding and correct their incorrect knowledge about grammar.

INNOVATION ASPECT

There are a few aspects that were brought in the innovation. First, the aspect of 'stories' is used because according to Mandasari (2012), the purpose of integrating animated stories into an educational application as animation is a type of visual support that children are attracted to and it is important to enhance their understanding of language. Grammar aspect is also integrated in context. To assess their understanding, quizzes are included in the innovation. English language learning games are also incorporated in the innovation for pupils to learn with joy.

ADVANTAGES OF INNOVATION

Based on my findings, one of the advantages of the innovation is the user friendly interface. Moreover, the innovation's contents are relevant to Year 3' English language syllabus. Next, the innovation incorporated the element of fun learning with games and interactive quizzes.

SUCCESS OF INNOVATION

I believe that the innovation is a success based on the online survey conducted. 90.9% of the users agree that the app is user friendly and has an interface with is suitable for pupils' use. Moreover, 67.6% users agree that with the innovation meeting Year 3's learning expectations. I hope to see improvement in knowledge of correct grammar usage in pupils by utilizing the innovation. Pupils are using a fun approach to learn English by using the correct platform.

Learning Application "Articles Adventure" Improves Year 4 pupils' Grammar Knowledge of Articles.

Wan Mohammad Faizi Fahim bin Wan Fauzi

PISMP BI2 Jun 2017

SYNOPSIS

According to eduationalappstore.com, mobile application is the best tool that will help pupils learn English fast in terms of English fluency and improve their daily English skills such as listening, speaking, reading and writing. In my case, this application put more emphasis on reading and writing skill. This application comprises of a simple user interface. This matter is important so that the pupils can easily navigate throughout the application. Voice assistant is provided to guide pupils along the way when they are using the application.

OBJECTIVES

- Pupils can use the grammar content (articles) in context when constructing sentences which integrate preposition of place based on selected picture.
- Teacher can integrate creativity and ICT in the process of teaching and learning as Articles Adventure allows pupils to learn articles through it.
- Teacher also can give instant feedback on pupils' work because the apps game allows the students to identify their problems learning the grammar function.
- Articles Adventure can be reviewed from time to time.
- Therefore, teacher can observe the pupils' development.

INNOVATION ASPECT

The digital application "Articles Adventure" is created to help the Year 4 pupils to learn the grammar function of articles more effectively and in a more interesting way. Pupils only answer exercise on grammar function of articles in worksheet as they have minimal opportunity to apply their grammar knowledge in context. Pupils can use the

grammar content (articles) in context when constructing sentences which integrate preposition of place based on selected picture. Teacher can integrate creativity and ICT in the process of teaching and learning as Articles Adventure allows pupils to learn articles through it and they can give instant feedback on pupils' work because the apps game allows the students to identify their problems learning the grammar function. Articles Adventure can be reviewed from time to time. Therefore, teacher can observe the pupils' development.

ADVANTAGES OF INNOVATION

The digital innovation can be assessed its usability during teaching and learning session. Firstly, teachers should take in charge to set a date and place to use the innovation throughout the learning session among the pupils. This product needs to be accessed using smartphone. So, teachers are responsible to make sure the place is convenient to use the digital innovation as the teaching materials for the pupils.

Then, teachers give instructions on how to use it to the pupils orally. They should instruct them one by one while demonstrating it in front of the class. The pupils must concentrate to the teachers and follow the instructions given. In this part, teachers should let the pupils to do it by themselves and guide them if needed. It enables the pupils to experience the learning well.

After the pupils have tried products, teachers can ask their feedback in using it during the lesson. They can write their feelings, experience and opinions about the digital innovation. In addition, teachers can also write their opinions about the usability of the digital innovation in the teaching and learning session based on their observation on the pupils. It can be proved by the behaviour of the pupils during the class, the interest that has been shown among them and the progress of the teaching and learning session itself. Paying attention, work on task immediately, ask questions and volunteer to answer and look happy and eager are some signs of motivated among the pupils (Palmer, 2007 as cited in Williams, 2011).

IMPACT OF INNOVATION

Teachers can implement this application in their daily lesson basis as it is suitable to cater the pupils' knowledge on the basic function of articles. The mini games within the application itself can help the pupils to develop their critical thinking skill as they play along to determine the correct articles for the sentences. Thus, this help can help the pupils to learn the lesson when they are at home or anywhere if they have their smartphone within themselves.

Tale-ing Time Application

Zai Qasrina Ain binti Zainal Abbidin

PISMP BI2 Jun 2017

SYNOPSIS

For my Digital Innovation in Teaching and Learning, I have created an digital learning application called *Tale-ing Time*. I created that application through a free platform called *Thunkable*. *Tale-ing Time* is a storytelling application based on the topics in the Malaysian English textbooks. This application is targeted for lower primary learners to help enhance their vocabularies. The aim for this application is to provides pupils opportunities to learn new meanings. Tuan (2012) identifies the advantages of using games to learn vocabulary which is games add relaxation and fun, so the learners retain words more easily. Apart from that, Gardner (1983) said with the aid of of images, it will also help retain pupils visual/spatial skills longer.

OBJECTIVE

• To improve pupils' comprehension of words with the help of flashcards, videos, and games.

INNOVATION ASPECT

My application is meant to help pupils with difficulties in understanding meanings of new words. The weakness leading to this problem are:

1. Pupils does not understand the meaning of word(s) even though in context.

Capnival application comprises 3 elements of learning which are input, practice and assessment. In input section, pupils will be exposed to stories of their own choice where they are free to watch a video and to read the video's script with highlighted words. Then, for the practice part, there will a set of flashcards of those highlighted words, where the pupils can revise the meanings. Lastly for the assessment, there will be 3 types of

assessment ranging from easy, medium and hard for pupils to complete. Pupils would also be able to see corrections if they answer wrongly.

ADVANTAGES OF INNOVATION

The stories I picked for this application are *The Lion and the Mouse* and *The Grasshopper and the Ants*. I have developed this application based on comments and suggestions from others on how I can improve this application which are (refer Figure 1):
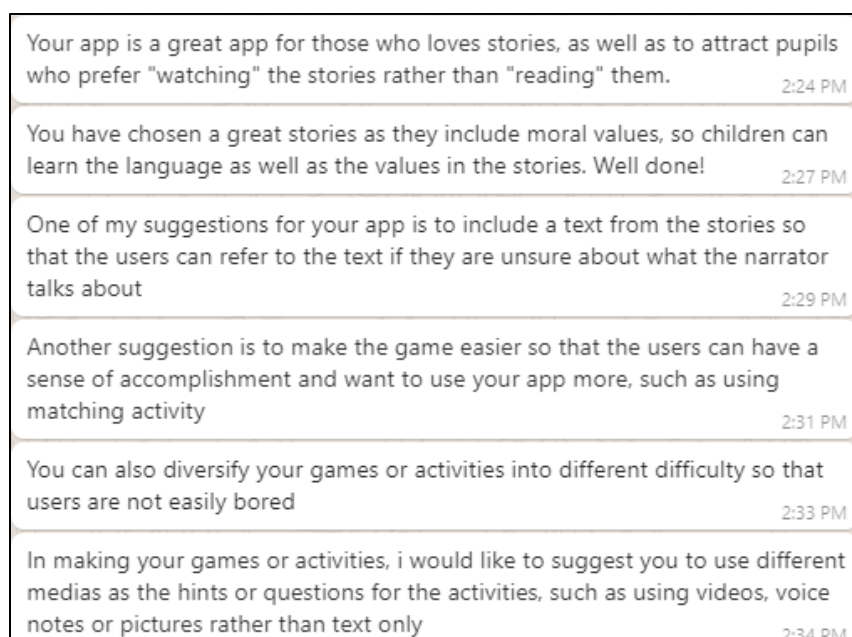
Your app is a great app for those who loves stories, as well as to attract pupils who prefer "watching" the stories rather than "reading" them.   2:24 PM

You have chosen a great stories as they include moral values, so children can learn the language as well as the values in the stories. Well done!   2:27 PM

One of my suggestions for your app is to include a text from the stories so that the users can refer to the text if they are unsure about what the narrator talks about   2:29 PM

Another suggestion is to make the game easier so that the users can have a sense of accomplishment and want to use your app more, such as using matching activity   2:31 PM

You can also diversify your games or activities into different difficulty so that users are not easily bored   2:33 PM

In making your games or activities, i would like to suggest you to use different medias as the hints or questions for the activities, such as using videos, voice notes or pictures rather than text only   2:34 PM

Figure 1

I included the script of both stories to ease the pupils comprehension of the stories. Not only will they watch and hear the stories, they will be able to read them as well. For each stories, there are 3 levels of activities, from easy to hard, for the pupils to accomplish. The activities varies from matching words to its correct meaning, video quiz and crossword puzzle.
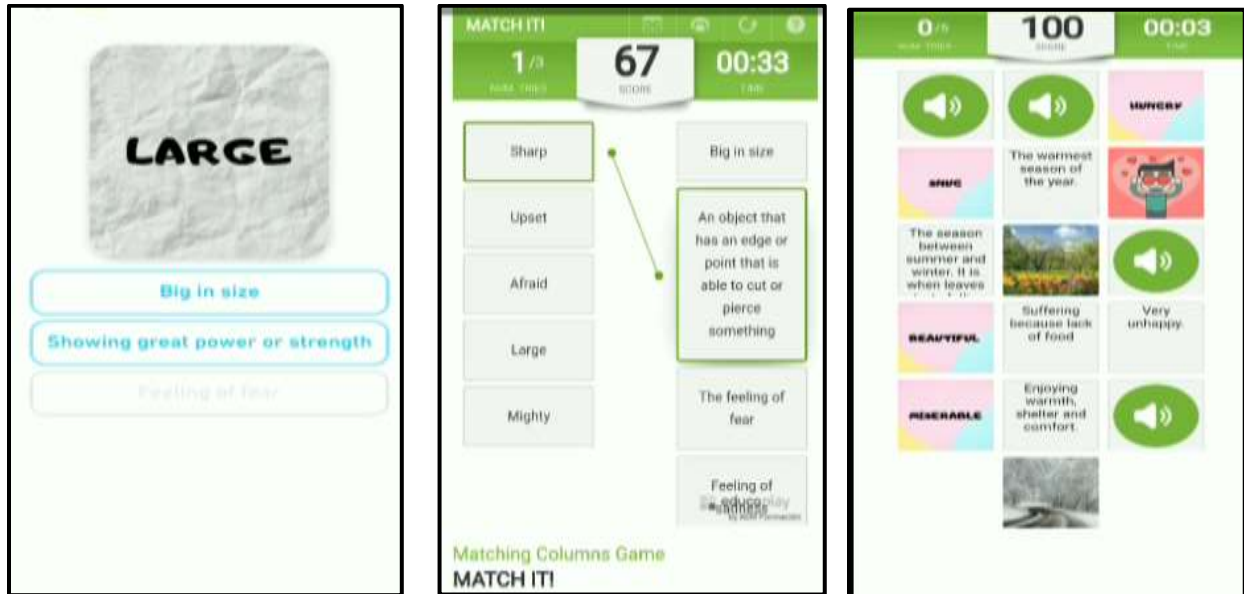
SUCCESS OF INNOVATION

Tale-ing Time application is effective in value of errors. Users agree that it offers users the stories with chosen words, explanations of meanings, allows users to review the materials related to the questions. In terms of teaching and learning, this application is assessment-friendly for the students and teachers. It is completed with instructions to guide the pupils' what to do. Upon completing the given assessment, marks are stated clearly to show how well the pupils' answered the questions. I have designed the application using simple graphics, animated videos, and clear audio for easy comprehension. This explains why the users did not need my guidance during the test-run.

Last but not least, the cost of development for this application is free since I used a website called *Thunkable* to design it. However, for the flashcards, it requires internet connection for the pupils to revise the targeted words.

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