

SnAP Edu: LEARN WHILE PLAYING

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ABSTRACT

SnAP Edu is card game that create as a new tactic of learning in an interesting way thru playing. As in the era of internet and globalization, teacher and student must explore many other approaches in studying and doing revisions that up to trends. Learning and revision process using gaming will increase the student understanding. This card game are created to help student to do learning and revision process interesting and enjoyable. SnAP Edu game card can be used to any level of education either for schools or higher-level institution. This card game is design to be played from 2 to maximum of 6 players. The design of these cards is colorful and using flower images. The players have to answer question asked based on the same card that been snapped. The winner in the game calculated based on the large number of card s collected. The question asked are based on the topic selected before the game starts. A group of around 30 students from standard 3 to 5 are used as sample of respondents for these studies. The result shows the players felt enjoy, interesting and easy to do revision while playing this SnAP Edu card game.

Keywords: *card game, gamming, stem education, education game, study approach*

Introductions

Wikipedia define a card game is any game that uses playing cards as the primary device with which it is played, whether traditional or specific game style. Card game can be played by minimum of 2 players to maximum of 8 players. There are many types of card game available in market like Happy Family, Poker Card, Snap Family Fantasy and many mores. This study introduces SnAP Edu card game that combine the technique of playing and learning process.

SnAP Edu card game is a learning game card. This card can help the school student in process learning and doing revisions. Any level of age student can play this SnAP Edu card. SnAP Edu card is played individually with overlook by instructor. Exercise questions from topic Science & Science Technology will be asked during the game. Actually, this approach revision during playing will encourage student and enhance the student interest in the topic discuss.

In current education system thought have held that education is an organic process that cannot be imposed through drilling. Many teachers are concerned that students do not allocate enough time to independent thinking, group discussions, or active learning. Individuals are more likely to learn when they learn with others rather than alone (Michael and Chen, 2006).

According to Ritzko and Robinson (2006), games have a significant relationship with interest and enthusiasm among business students using an active learning approach. According to those studies, the most recent types of respondents from undergraduate college students are the generation that has grown up with TV game shows, interactive video games, and the Internet as forms of entertainment and education. A traditional lecture class appears to be unpopular in comparison to these latest interactive mediums. In-class games are one way to increase student engagement with the class and relevant material.

Many people enjoy mobile games because they can be played at any time and from any location. Prato et al says, according to their findings, this game is very entertaining, interesting, and simple to play, and it improves problem-solving and decision-making skills. A type of flash card that can fulfil the basic elements of an active teaching and learning approach by incorporating elements of speaking, listening, and reading activities all at once (Fakrulhazri at al, 2018).

Paramjit et al (2021) said, the most obvious manifestation of the 'joy of learning' is intrinsic motivation, which leads to a desire for more of it. When students are involved and engaged in play, they are more motivated to learn. Nurturing joy in this way is extremely rewarding and results in a very pleasant environment, because students naturally participate more when they enjoy what they do.

There in a previous studies, the researchers (R.Gurbz & E.Erdem, 2018) have say that engagement is re is a requirement for meaningful learning to occur, which necessitates a shift in student's behavioural patterns from 'passive vessels' to 'active participants'. Such modes of learning, once combined, result in a more in-depth learning experience that students can relate to each other's.

The amount of effort put into creating or constructing a game should not impede the learning process or add additional burden to the learners. Clark (2013) criticises the digital version of Concentration, one of the existing online vocabulary games. There are 16 cards face down on the screen in the game, and learners must find the matched pairs of eight vocabulary words. The students will keep clicking until they find the perfect match. When a match is found,

the pair is eliminated. Clark (2013) contends that having to recall the location of the cards before getting the correct match adds an extra burden to vocabulary learners; thus, this activity is highly irrelevant to vocabulary learning.

Materials and Method

Method

In the process of developing SnAP Edu card there two (2) main method applied. First method is for design then the second method are to study the satisfaction of using SnAP Edu card. In this part the 1st method will be elaborate while the 2nd method will be discussed further in part result and discussion.

SnAP Edu card has been developed based on Program Development Life Cycle (PDLC) steps as shown in Figure 1. There are five main steps in PDLC that start with analysis, design, implementation, testing and documentation.

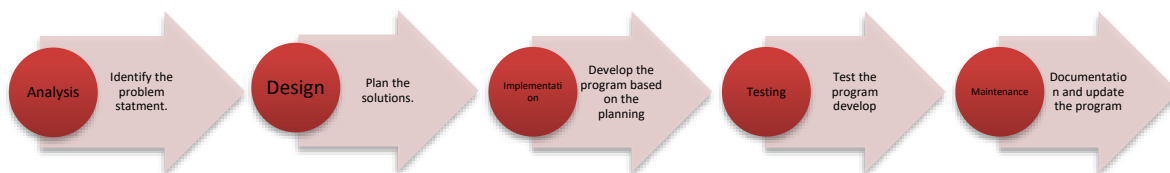


Figure 1: PDLC design

Initially before the project SnAP Edu Card was developed, the problem statement was identified. The main problem is students felt bored performing revision in traditional way. So once, clearly understand the requirements to solve the problem, next step are proceed. Next in the design level, interface design for the card was developed differently from common design available. Once finalized the design for the card , it was sent to print as the quality of flash card available with different size. A list of questions is prepared and also printed in different card that will be packed together with SnAP Edu card. Once the SnAP carad are ready, it is used in some education training to test the satisfaction and effectiveness.

Materials

SnAP Edu is a card game inspired from Snap Family Fantasy game. SnAP Edu, it is designed with floral concepts. SnAP Edu was being developed slightly different in a unique way. The card size for the SnAP Edu is 12 cm X 15 cm. The figure 1 and 2 below shows the interface design for SnAp Edu with front view and back view. The figure 3 show the interface of the questions ask are in the game.

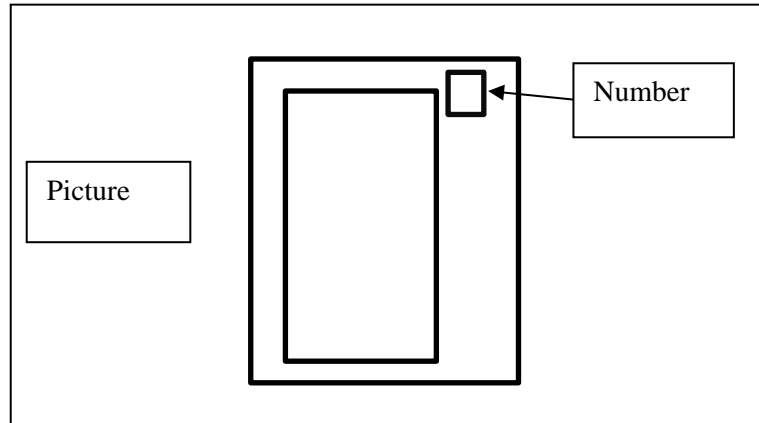


Figure 2: SnAP Edu card interface design (front view)

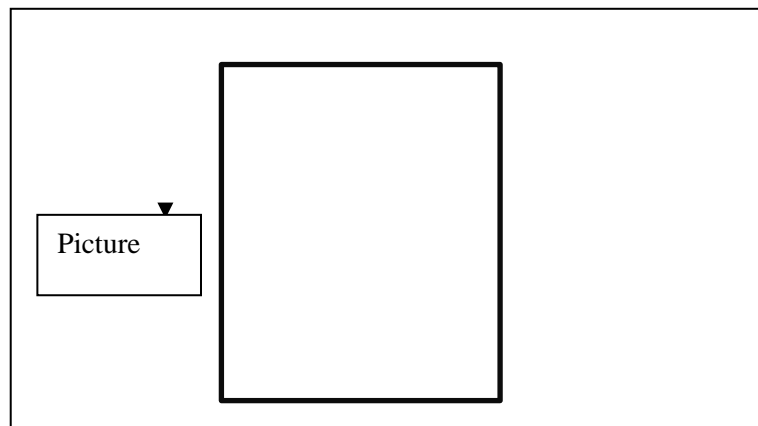


Figure 3: SnAP Edu card interface design (back view)

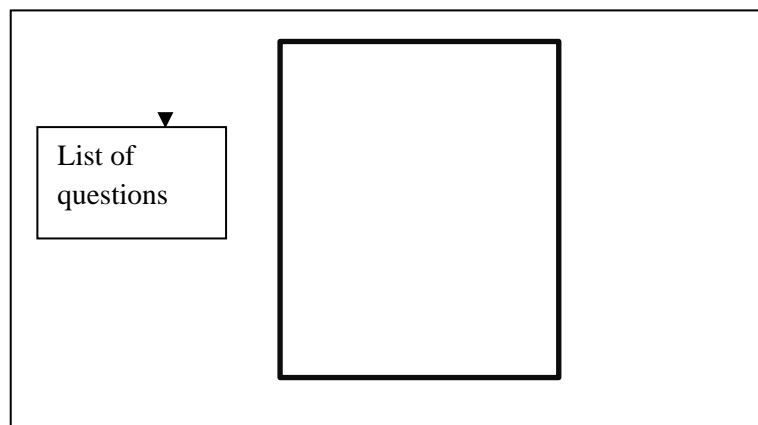


Figure 3: SnAP Edu card interface design (question card)

Methods

SnAP Edu is card game, whereby can be played in individually by maximum of 5 players from different ages. This game can be played with a maximum number of 5 players and 1 instructor. Simple questions on English will be asked to increase students' knowledge according to different level of difficulties.

As usual, the game start with a player to the dealer's left turns over the top card of his pile and places it face up, beginning a pile of cards next to their face down cards. The player to the left follows suit, and so on around the table.

When a card is turned up that matches a card already face up on another player's pile, the first person to notice the two matched cards calls out "Snap!" and wins both piles. To keep the piles the player wins, the player has to answer the question asked by the instructor. If the player answers correctly then the player can keep the piles if not the player can't keep it. The cards are added to the bottom of this player's face-down pile. The winner of the game can be define based on the card the player collects at the end of the game. If we have same number of cards they have to answers a questions to find a winner. Figure 4 below show the flow how the game is played.

Results And Discussion

A survey has been conducted among 30 students. The main objective of the questionnaire is to identify the student's opinion and satisfaction using SnAP Edu. The questions are divided in two parts which are:

- a) Demographic
 - Gender
 - Age
- b) SnAP Edu satisfaction

Below are the results and findings from the questionnaire distributed among the students. The table above shows the demographic information about the respondent. From the 30 students involved in this study, 14 of them are female student while 16 of the are male student as shown in Table 1. Table 2 shows there are 7 male and female students from age between 10 to 12 years old meanwhile there are 7 female and 9 male student in age of 9 to 10 years old.

Table 1: Respondent Demographic based on gender

Gender	Male	Female
Number of students	16	14

Table 2: Respondent Demographic based on age

Gender	Male	Female
Age between 11 to12	7	7
Age between 9 to11	9	7

Figure 4 illustrates the respondent’s satisfaction in using SnAP Edu. The result shows, 95% of the respondents are satisfied with SnAP Edu card game as it can help and make them enjoy during their revision time.

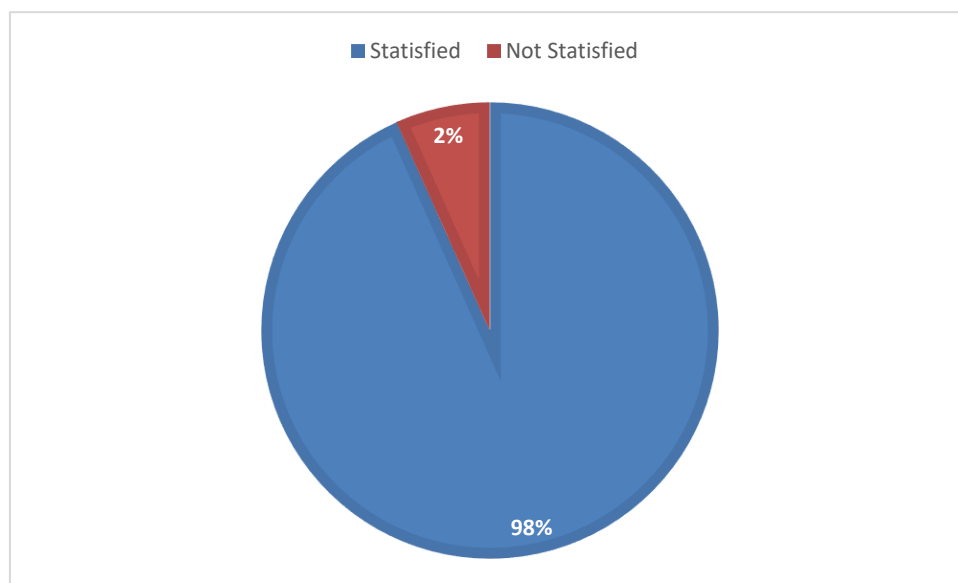


Figure 4: Student’s level of satisfaction using SnAP Edu

Conclusion

As a result, learners become more focused and willing to devote significant time to improving their game performance. Various studies have shown that engaging learners through guided play produces better results in pedagogical practises than the traditional teaching method. SnAP Edu also have proven that players satisfied to play the card while doing the revisions.

References:

Parmjit Singh, Teoh Sian Hoon, Akmal Md Nasir, Adlan Md Ramly, Syazwani Md Rasid and Chew Cheng Meng (2021). Card game as a pedagogical tool for numeracy skills development. *International Journal of Evaluation and Research in Education (IJERE)* Vol. 10, No. 2, June 2021, pp.693~705 ISSN: 2252-8822, DOI: 10.11591/ijere.v10i2.20722

- S. Papadakis, M. Kalogiannakis, and N. Zaranis (2018). “The effectiveness of computer and tablet assisted intervention in early childhood students’ understanding of numbers. An empirical study conducted in Greece,” *Educ Inf Technol*, vol. 23, pp. 1849-1871, 2018.
- R. Gürbz and E. Erdem (2018). “Relationship between mental computation and mathematical reasoning,” *Cogent Education*, vol. 3, no. 1, 2018.
- Fakrulhazri Nik Hassan, Nik & Jaafar, Nik & Ahmad, Noorazlina & Ibrahim, Norlaila & Khusairi, Wan. (2018). The Role of Games Card in Active Teaching and Learning Approach: A Case Study of Entrepreneurial Creative Card (EC-CARD). 4. 829-842. 10.4314/jfas.v10i4s.248.
- H. Pranoto, E. Genaldi, R. Anthony, A. Kurnia, H. L.H. S .Warnars, A. Trisetyarso, B.S. Abbas and W. Suparta (2017). "Card game element rising academy to improving decision making ability," *IEEE International Conference on Cybernetics and Computational Intelligence (CyberneticsCom)*, Phuket, Thailand, 2017, pp. 62-66, doi: 10.1109/CYBERNETICSCOM.2017.8311685.
- Michael, D., & Chen, S. (2006). *Serious games: Games that educate, train and inform*. Boston, Mass: Thomson Course Technology.
- Clark, R. C (2013). Why Games Don’t Teach. Retrieved on 20 December 2014 from <http://www.learningsolutionsmag.com/articles/1106/why-games-dont-teach>
- Ritzko J M and Robinson S. Using games to increase active learning (2006). *Journal of College Teaching and Learning*, 2006, 3(6), 45-50.
- Wikipedia Card Game , https://en.wikipedia.org/wiki/Card_game