

## TeKnow: A KNOWLEDGEABLE GAME FOR KIDS

\*Wan Anisha Binti Wan Mohammad, Rafizah Binti Kechil<sup>2</sup> and Azlina Binti Mohd Mydin<sup>3</sup>  
\*wanan122@uitm.edu.my<sup>1</sup>, rafizah025@uitm.edu.my<sup>2</sup>, azlin143@uitm.edu.my<sup>3</sup>

<sup>1,2,3</sup>Jabatan Sains Komputer & Matematik (JSKM),  
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

\*Corresponding Author

### ABSTRACT

*In the era of technology and globalization, teaching and learning has play an important role in human life especially when involving the new generations. To make teaching and learning more interesting, new attempt have been made by introducing gaming concepts to students. During recent years, more classical concepts are being introduced in teaching and learning by using board games. Thus, TeKnow was being developed to test students' knowledge and understanding while playing games. TeKnow was inspired by the Snakes and Ladders game. It was specifically designed for school students from different ages. Simple questions on English will be asked to increase students' knowledge on vocabulary and spelling according to different level of difficulties. Through this game, player do not only have fun but at the same time they can learn to test their knowledge on spelling and vocabulary. Besides that, students have to take turns to express their ideas according to the instructions given. This game is hoped to help teachers and students in teaching and learning especially to develop students social skills and increase understanding and flexibility in their studies.*

**Keywords:** board games, knowledge, spelling, vocabulary, understanding

### Introduction

Game based learning has transformed the traditional method of transmitting knowledge. The incorporation of games in learning triggers pupils to be autonomous learners and enhances their learning in various fields of knowledge (Fatin et al, 2019). Undeniably, games help to lower students' anxieties and create contexts in which students can collaborate with peers in teams to use language meaningfully and in a relaxed way (Wong and Melor, 2021).

Board games are important to provide hands-on and heads-on skill, and knowledge development for people of all ages in any subjects besides providing a nonthreatening, playful, yet competitive environment in which to focus on content and reinforce and apply learning (Treher, 2011). Board games allow players to move counters or pieces in particular ways on a board, according to a set of rules. It can be classified into classic games, family games, strategy games, thematic games and war games (Wong and Melor, 2021). There are several famous board games such as chess, Monopoly, and Snakes and Ladders. InCes (Infiniti Cergas Sihat) is also a board game developed to be used as an intermediate medium for teaching while playing. In addition, InCeS also implement exercise activities as an intermediary game instrument to promote healthy physical activity (Siti Nurleena et al, 2022).

Playing board games can help to enhance students' skills and development (Surajwaran & Azlina, 2019). Through board games, students are exposed to ideas and opinions given by their peers (Barton et al, 2018). Hence, board games are recognized as perfect learning tools as they equip children with new knowledge while also entertaining them. Since most students have interest in games, they will be more determined and very interested to play the game and at the same time they get knowledge from it. Whereas some board games imitate real-life circumstances, this can help students to develop social skills and increase their flexibility.

## **Materials and Method**

### ***Materials***

TeKnow is a board game inspired by the Snakes and Ladders game. Snakes and Ladders is a board game where it can be played by two or more players. It is played on a game board normally with the size of 8×8, 10×10 or 12×12 numbered, gridded squares. Few "ladders" and "snakes" are pictured on the board, each connecting two specific board squares (Wikipedia, n.d.). When the players land on the ladders, they can move to the square which the ladder reach on top but if the player land on the snake, it shows that they are bitten, and they need to go down to the square that ends with the snake tail. To move from one square to another square, the player should roll a die. Other games which are similar to Snakes and Ladders are Chutes and Ladders, Bible Ups and Downs, etc.

Compared to the existing game, TeKnow was being developed slightly different in a unique way. This game consists of a 10x10 feet colorful board with playground design made with canvas materials. On the board, instead of using gridded squares, they are represented by a curve design similar like a snake body from the start until the end of the game. The curve line is separated into 50 spaces with a letter on it. Instead of snake and ladder, TeKnow uses ropes and ladders on the board. TeKnow also consists of a large die, a guideline card for the instructor and few cards which consists of questions on spelling and vocabulary for the instructor to refer. Each card was printed on a laminated A5 thick paper size. Figure 1.1 show the design of the TeKnow board while Figure 1.2 shows the design for the guidelines card.



Figure 1.1 TeKnow board design



Figure 1.2 TeKnow design for guidelines card

TeKnow was specifically designed for school students from different ages. Simple questions on English will be asked to increase students’ knowledge on vocabulary and spelling according to different level of difficulties. Through this game, player do not only can have fun but at the same time they can learn to test their knowledge on vocabulary and spelling. Figure 1.3 shows the design of the question cards to test the student’s vocabulary on fruits, vegetables and parts of bodies besides testing the students spelling in different level of difficulties based on categories such as occupations, things and animals.

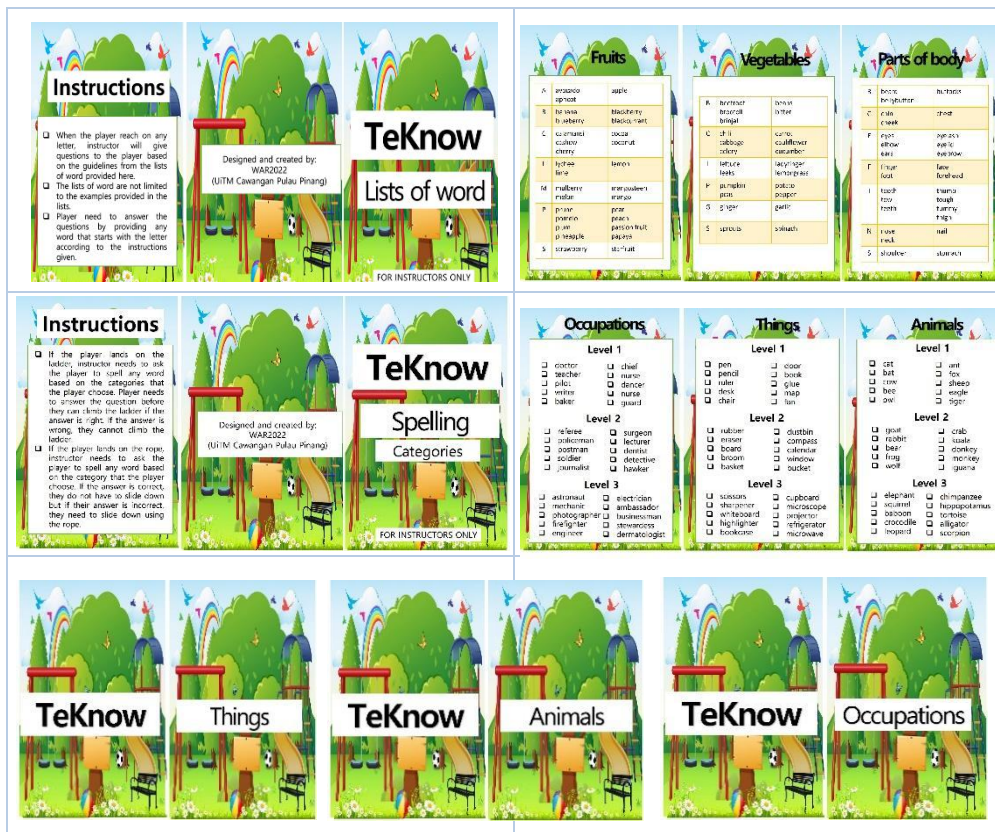


Figure 1.3 Question cards for instructor to test students with different level of difficulties

Eventhough the TeKnow board was quite big, but it can be folded easily and nicely after it is being used as it uses the canvas materials. Besides that, TeKnow cards are place in a nice box. The die provided with the game are large with sponge material. An A3 size jute bag printed with the word TeKnow will store all the TeKnow items. Figure 1.4 shows all the TeKnow items.



Figure 1.4 TeKnow items

### ***Methods***

TeKnow is a large board game designed for students 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 on vocabulary and spelling according to different level of difficulties. A die will be included in this game. Player needs to step on the board to move from one space to another space.

Each player will roll a die to determine their turn. To start moving, player will roll a die. The number on the dice will determine the steps to move. When the player comes across any letter, they need to provide any word that starts with the letter according to fruits, vegetables and parts of body given by the instructor.

If the player lands on the ladder, they need to answer a question before they can climb the ladder if the answer is right. If the answer is wrong, they cannot climb the ladder. If the player lands on the rope, they need to answer a question. If the answer is correct, they do not have to slide down but if their answer is incorrect, they need to slide down using the rope. Players who roll six can move and can role the die again.

The first person to reach the last space (the net) wins. If the player rolls too high, they will be bounced of the last space and moves backward. They can only win by rolling the exact number needed to land on the last space. The game will be continued until there is only one player left. Figure 1.5 below shows the flowchart to play the game.

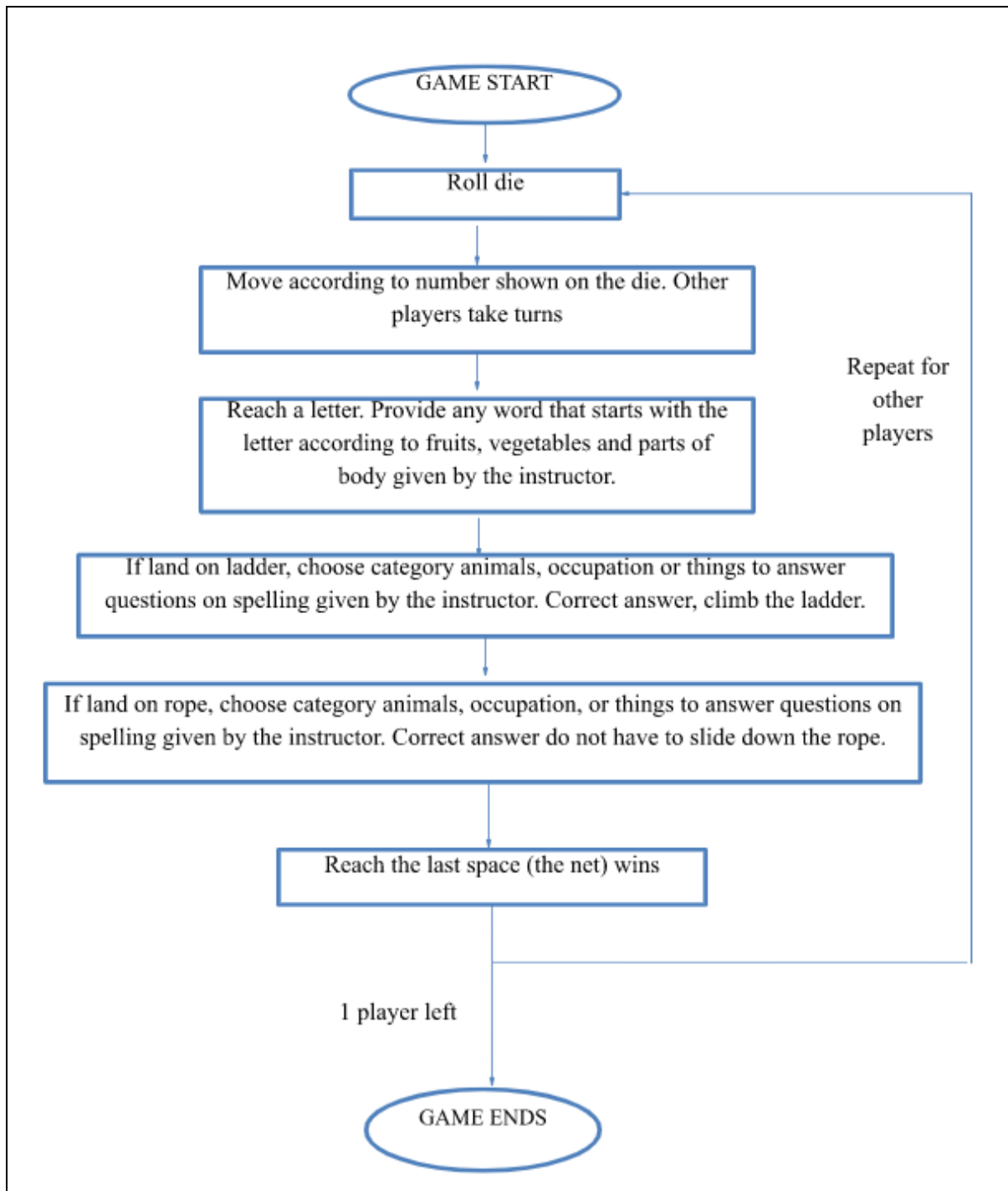


Figure 1.5 Flow of TeKnow game



## Results and Discussions

This paper is to identify TeKnow as a knowledgeable game for kids. TeKnow has been implemented for around 30 disable students from SMK Tasek Gelugor, Pulau Pinang. A survey has been conducted to the teachers in charged based on the student’s contribution during the game implementation. Figure 1.6 shows the implementation of TeKnow to disable students from SMK Tasek Gelugor.



Figure 1.6 The implementation of TeKnow to disable students from SMK Tasek Gelugor.

The findings are represented in the charts below. Figure 1.7 shows the student’s interest and happiness when playing TeKnow. All students contributed very well when playing TeKnow as they feel interested and happy since TeKnow is a very interesting game and they enjoy it very well even though they have some disabilities.

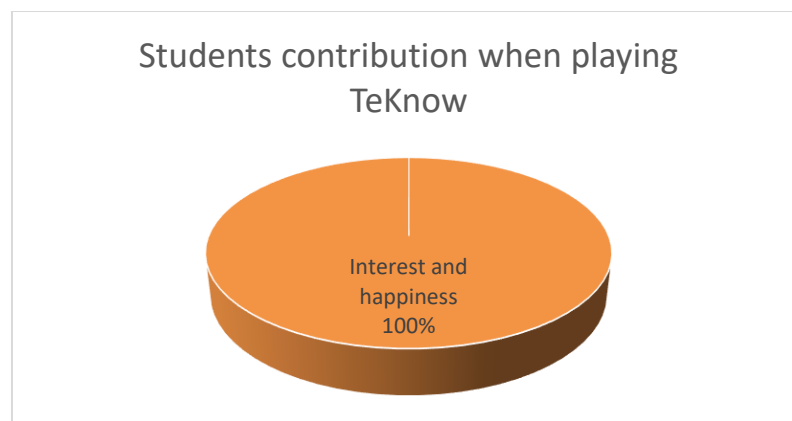


Figure 1.7 Student’s contribution when playing TeKnow.

## Conclusion

TeKnow was developed to help teachers and students in teaching and learning specially to develop students' social skills and increase understanding and flexibility in their studies. This game allows students to learn English in terms of vocabulary and spelling with different level of difficulties. Through this game, player do not only have fun but at the same time they can learn to test their knowledge in an enjoyable way. Besides that, students can take turns to express their ideas according to the instructions given. It is hope in the future, this game can be extended to other subjects and topics so that teachers and students will have varieties of approaches in teaching and learning interestingly.

## References:

- Barton, E. E., Pokorski, E. A., Sweeney, E. M., Velez, M., Gossett, S., Qiu, J., Flaherty, C., & Domingo, M. (2018). An Empirical Examination of Effective Practices for Teaching Board Game Play to Young Children. *Journal of Positive Behavior Interventions*, 20(3), 138–148. <https://doi.org/10.1177/1098300717753833>
- Fatin Kamilia Mohd Arif, Natasha Zaireen Zubir, Maslawati Mohamad, Melor Md Yunus (2019). Benefits and challenges of using game-based formative assessment among undergraduate students. *Humanities & Social Sciences Reviews*. <https://doi.org/10.18510/hssr.2019.7426>
- Siti Nurleena Abu Mansor, Azlina Mohd Mydin, Wan Anisha Wan Mohammad, Mahanim Omar, Rafizah Kechil and Siti Mariam Saad (2022). InCeS (INFINITI CERGAS SIHAT): PHYSICAL DEVELOPMENT AID FOR PRESCHOOL CHILDREN. *HITeL Teaching & Learning Innovation (Teaching and Learning Practices)*
- Surajwaran Mangaleswaran, Azlina Abdul Aziz (2019). The Impact of the Implementation of CLT On Students' Speaking Skills. *International Journal of Scientific and Research Publications (IJSRP)* 9(4) (ISSN: 2250-3153), DOI: <http://dx.doi.org/10.29322/IJSRP.9.04.2019.p8814>
- Treher, E. N. (2011, June 10). *Learning with Board Games Tools for Learning and Retention*. [www.thelearningkey.com](http://www.thelearningkey.com)
- Wikipedia The Free Encyclopedia (n.d.). *Snakes and ladders*, Retrieved 16 March 2023, from [www.wikipedia.com](http://www.wikipedia.com)
- Wong, C.H.T., Melor Mohd Yunus (2021). Board Games in Improving Pupils' Speaking Skills: A Systematic Review. *Sustainability*, 13, 8772. <https://doi.org/10.3390/su13168772>