

# SPIN N'GO BOARD GAME FOR EMPLOYMENT INCOME

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## ABSTRACT

Traditional teaching-learning process may cause students to be passive during classes. Over time, the teaching and learning process need to incorporate the interactive elements and methodologies. The purpose is to encourage peer-to-peer-discussion and to develop problem-solving skills. Many previous researches report positive outcomes from the usage of game-based learning among tertiary education students. Therefore, a board game named as Spin N Go Board Game is designed to attain these aims. This game will be used in taxation class, specifically for the topic of Employment Income. A framework known as the Serious Game Design Assessment Framework (SGDA Framework) developed by Mitgutsch and Alvarado (2012) is used as a reference in the development of Spin N Go Board Game. It contains six domains which are purpose, content, framing, mechanic, fiction/narrative and aesthetic/graphics. It is believed that by using this board game, students will gain more knowledge in this topic due to enhanced engagement and motivation in their studies. Additionally, the same outcome may also be achieved as students ought to learn Employment Income in a fun way and at their own pace.

**Keywords:** board game, employment income, taxation, game-based learning, serious game

## 1. INTRODUCTION

The application of board games in addition to the lecture-based classes have been successfully used in various faculties (Rizov, Djokic & Tasevski, 2019). For examples, Gut Game in health sciences students (de Campos et al., 2020) and prototype game refers to Knowledge Management model) in management class (Taspinar, Schmidt & Schuhbauer, 2016). However, based on available education board games in the market, it is difficult to find the board game that suitable for the Accountancy students especially for the taxation courses, particularly for Employment Income. Moreover, this topic is one of the complicated topics in the Taxation course. It has five applicable sections as per the Malaysian Income Tax Act 1967 and a handful of items in each section. Moreover, certain information may affect the fundamentals applied in the computation of employment income. The design of this board game is one of the efforts to fill the gap which is to engage and motivate students in mastering such topic through an innovative way.

## 2. LITERATURE REVIEW

### 2.1. Game-based learning

There are many studies have been done to examine the best teaching methods and its impact on learning and student's performance. One of them is game-based learning which makes students actively engaged

and increases their motivation to learn (Tseng, Yang & Lu, 2019, Syal & Nietfeld, 2020). All these studies found that game-based learning could increase the level of student's learning by means of enhanced creative thinking skills. Game-based learning environment also are less stressful compared to the school environment; hence the students can explore the game for longer time (Behnamnia et al., 2020 and Noroozi et al., 2020). However, some of the game features have distracted the students from the main goals of the game because the game negatively affected the emotion and interest of students to keep playing the game (Behnamnia et al., 2020 and Noroozi et al., 2020). They found that the use of audios and videos may be helpful but text should be minimized to prevent confusion. Thus, it is important for game developers to focus on the game architecture and narrative to reach the optimal amount challenges embedded in a game so that it will increase the interest of students' in a learning engagement.

## 2.2. Board Game

Previous studies showed many benefits in learning. According to Slegers et al. (2015), board games are interesting because it may act as an icebreaker and offer a relaxed atmosphere to share their thoughts. Muell et al (2020) supported that board games emphasized on the strategy and consequences for decision makers and thus contributed to the education's evolution. The students can use the board games to stimulate their critical thinking by identifying the concept that the games get right or wrong and omitted. Khan & Pearce (2015) reported that students who are playing board games showed higher level of flow compared to attending conventional tutorial session. Thus, it is effective to introduce a new topic by using a board game as it will increase the students' motivation, enjoyment and absorption.

## 2.3. The Employment Income under the Malaysian Income Tax Act 1967

An individuals' employment income is legislated by Sections 13(1)(a) - (e) of Malaysian Income Tax Act 1967. Each section refers to different benefits due to an individual's employment. Moreover, each section has many items and their tax treatments may be different according to one's post in the company. For an example, travelling allowance for employees and directors are eligible for an exemption of RM6,000 per annum while directors of control company are not entitled for such exemption at all. Therefore, due to its complexity, students spend much time and effort to master of this topic.

## 2.4. The Application of the Serious Game Design Assessment Framework in the Spin N Go Board Game

The Serious Game Design Assessment Framework (SGDAF) (Mitsch and Alvarado, 2012) is used as a reference in the design of Spin N Go Board Game (SNGBG). There are six components of the framework. All these components should be integrated well among each other to promote coherence and cohesiveness of the game. The components of the framework are as follows:

Table 1. The Components of Spin N Go Board Game as per Serious Game Design Assessment Framework [10]

Components	Meanings	Spin N Go Board Game
Purpose	Objectives of the game	to increase student engagement in the learning of subject matter, hence improved academic performance.
Content	Data, information and facts of a game	Avatar, points for each question, players' scores, questions and answers.
Framing	The selection of players	Students who are undertaking tax course, trainees of tax firms or tax authorities, the public.
Game Mechanic	rules of the game, its reward system and obstacles /challenges	Points provided for correct answers, questions at three level of difficulties, random obstacles and additional rewards.

Fiction/narrative	the storyline of the game	Players are trainees in tax firms who need to solve tax cases.
Aesthetic/graphics	The design in visual language	The designs of the board, cards and pawns.

## REFERENCES

1. Rizov, T., Djokic, J. & Tasevski, M. (2019). "Design of a Board Game with Augmented Reality." *FME Transactions*, 47, 253 – 257.
2. De Campos, R. P., Viero, V. P., Medeiros, N. M., Marcondes, F. K., Montezor, L. H., Porawski, M. & Gutierrez, L. L . P. (2020). "The "Gut Game": An Active Methodology to Teach Digestive Physiology." *Advances in Physiology Education*, 44, 444-447. doi:10.1152/advan.00007.2020.
3. Taspinar, B., Schmidt, W. & Schuhbauer, H. (2016). "Gamification in Education: a Board Game Approach to Knowledge Acquisition." *Procedia Computer Science*, 99, 101 – 116.
4. Tseng, S. S., Yang, T. Y., & Lu, A. C. (2019). "Developing a Recipe Planning Board Game by Design Thinking Approach." *Proceedings of the International Conference on Frontiers in Education: Computer Science and Computer Engineering*, 163-168.
5. Behnamnia, N., Kamsin, A., Ismail, M.A. & Hayati, A. (2020) "The Effective Components of Creativity in Digital Game-Based Learning Among Young Children: A Case Study." *Children and Youth Services Review*, 116, 105227.
6. Noroozi, O., Dehghanzadeh, H. & Talaei, E. (2020). "A Systematic Review on the Impacts of Game-Based Learning on Argumentation Skills." *Entertainment Computing*, 35, 100369.
7. Slegers, K., Ruelens, S., Vissers, J., & Duysburgh, P. (2015). "Using Game Principles in UX research: A Board Game for Eliciting Future User Needs." In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, 1225-1228.
8. Muell, M.R., Guillory, W.X., Kellerman, A., Rubio, A.O., Scott-Elliston, A., Morales, O., Eckhoff, K., Barfknecht, D., Hartsock, J.A., Weber, J.J. & Brown, J.L. (2020)." Gaming Natural Selection: Using Board Games as Simulations to Teach Evolution." *The Society for the Study of Evolution*, 74(3), 681-685.
9. Khan, A. & Pearce, G. (2015)." A Study into the Effects of a Board Game on Flow in Undergraduate Business Students" *The International Journal of Management Education*, 13, 193-201.
10. Mitgutsch, K., & Alvarado, N. (2012). "Purposeful by Design? A Serious Game Design Assessment Framework." *Proceedings of the International Conference on the foundations of digital games*, pp. 121-128.



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