

## 'Spell-It-Right' Countengpoly Board Game as Game-Based Learning: Embracing Play in Learning

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### **Abstract**

This concept paper is about the implementation on game-based learning through CountEngpoly board game. The usage of CountEngpoly board game in teaching and learning session suits the learning strategy in this globalisation era. This board game integrates English and Mathematics subject. The educators have viewed this as a modern way of teaching and learning which will arouse the pupils' interest. Besides, this project paper will show on the implementation of the game in details. The features of the board game will help the educators in managing the class effectively and making the teaching and learning session becomes more flexible.

**Keywords:** CountEngpoly Board Game, Game-Based Learning, Play in Learning, English Subject, Mathematics Subject, Literacy Skill, Numeracy Skill.

### **Introduction**

Education is a process in which an individual gains knowledge, gains skills, improves on attitude and learns new values from time to time. Game based learning is being assumed as a beneficial way of learning strategy as the learners can learn and have fun at the same time. Play is a natural activity for the learners, especially the children (Freud, 1920; Erikson, 1963 in Papalia et al. 2008). When playing, children can have their freedom, being delightful and satisfied on how their learning process occur (Montesory, 1870-1952 in papalia et al., 2008). The childrens' mind will be in relaxing state and they will be able to participate well in their learning activity. CountEngpoly board game integrates English and Mathematics subject. As we know, the education nowadays requires a generation who can perform holistically.

### **Problem Statement**

- (a) Does CountEngpoly board game as game-based learning enhances play in learning?
- (b) Does CountEngpoly board game arouses pupils' interest in learning Mathematics in English language?

- (c) How does CountEngpoly board game improves the pupils' literacy skills and numeracy skills?

### Literature Review

English is a main subject worldwide. Therefore, the Ministry of Education emphasises on English language in order to improve the education system of this country. Apart from that, the students in Malaysia should emphasise on their numeracy skills as Mathematics is an important subject as well. As stated by Friedrich Froebel (1782-1852) in Spodek (2003), play is a work of children. Play is important for the childrens' growth which contributes to their cognitive development, physical development, social development and mental health. CountEngpoly boardgame helps to integrate English and Mathematics subject so the pupils could improve their English and Mathematics at the same time. This suits the Dual Language Programme in school. Learning through playing is an effective way for a child to learn.

As stated by Mak Soon Sang in one of his books, game-based learning and play in learning give opportunity to the pupils to participate in the learning activities by adhering the rules which have been discussed between the teacher as the facilitators and the pupils as the players. The pupils will feel that they are being respected by their teacher as well. This learning situation creates friendly environment for the teacher and the pupils. Besides, game-based learning and play in learning could create meaningful way of learning too.

### Methodology

#### Initial Data Collection

Score sheet: As a researcher, I have assessed and evaluated the participants' scores and achievements during the intervention. Research participants are being required to spell these words correctly: 'umbrella', 'bicycle', 'disaster', 'healthy', 'hippopotamus', 'spaghetti', 'noodle', 'telephone', 'transportation', and 'competition'. I have chosen the Year 4 pupils with low language proficiency level. Most of them were unable to spell those words correctly. For Mathematical questions, the participants must spell the numbers in words correctly after getting the answers. For instance, "t-h-r-e-e u-m-b-r-e-l-l-a-s".

### Research Focus

#### Description of Research Focus

This action research focuses on the pupils who face difficulties when they try to spell the words given. As a researcher, my intention is to help the pupils who has low language proficiency and lack of numeracy skill. Before the intervention starts, the pupils will repeat the spelling session twice or thrice. 10 words are being given in the drilling session.

**(b) Action:** (4 pupils face difficulties when they tried to spell the words given.)

- 1. Worksheet:** Analysing the words which are mostly being misspelled by the research participants.
- 2. Workbook:** Analysing participants' scores and achievements through writing activity.

**Result**

<b>Name</b>	<b>Worksheet</b>	<b>Workbook</b>
Participant A (Blue player)	0/10	0/10
Participant B (Green player)	2/10	1/10
Participant C (Yellow player)	5/10	8/10
Participant D (Red player)	2/10	0/10

**Theories and Models used in Research****Theory of Operant Conditioning by B.F Skinner**

This theory is relevant in this research as B.F Skinner stated that when there is a stimulation, there will be a response. Game-based learning and play in learning through CountEngpoly Board Game stimulates participants' interest in participating in the game. When they are excited, this encourages them to respond actively in the activity. Reinforcement by giving scores and praise will motivate the participants to put more effort in next round of the game. Punishment might not be used in this research, however, if we want to relate the research with punishment stated by the theory of operant conditioning, the research participants might be missing their turns once if they are unable to spell the words given in the game. As CountEngpoly Board Game integrates English and Mathematics subjects, the pupils will find that this game motivates them to learn Mathematics in English language and improve their numeracy skills and literacy skills as well.

**The Theory of Multiple Intelligences by Howard Gardner:** In relating this theory with this research, intelligence is not being dominated by a single general ability. As proposed by Howard Gardner, in 1983, in the book titled Frames of Mind, intelligence 'modality' must fulfill eight criteria:

- Isolation by brain damage/neurological evidence
- The existence of prodigies, idiot savants and exceptional individuals
- Distinguishable set of core operations
- Developmental stages with an expert and state
- Evolutionary history and plausibility
- Susceptibility to encoding in a symbol system
- Support from experimental psychological tasks
- Support from psychometric research

In order to meet these criterias, eight abilities which Gardner proposed are:

- musical-rhythmic
- visual-spatial
- verbal-linguistic
- logical-mathematical
- bodily-kinesthetic
- interpersonal
- intrapersonal
- naturalistic

I would say that this research meets two criterias which are verbal-linguistic and logical-mathematical. The players are required to answer the Mathematics questions in English. For example, they will count numbers in English or construct problem solving questions in English. In another section, the participants can improve their spelling through ten words given.

**(a) Gagne Model: The Theory Outlines Nine Instructional Events**

	<b>Nine Instructional Events</b>	<b>Description</b>
1.	Gaining attention	Teachers as facilitators pique the learners' interest by explaining how to gain scores in 'Spell-It-Right' CountEngpoly Board Game.
2.	Informing learners of objective	Teachers discuss what will be taught and tell the participants the objective of the game.
3.	Stimulating recall of prerequisite learning	Teachers ask questions based on the participants' prior knowledge in the game.
4.	Presenting the stimulus material	Teacher explains on how to play the game, and demonstrates on how to answer questions in every sections.
5.	Providing learner guidance	Teacher as facilitator and the pupils as participant – practice and apply knowledge through the game.
6.	Eliciting the performance	Teacher keeps track on the updates of the participants' scores or missing turns during the game.
7.	Providing feedback	Teachers ask feedback from the participants on the difficulty of the questions in the game.
8.	Assessing the performance	Teachers assess participants' performance throughout the game based on their missing turns, and scores.
9.	Enhancing retention and transfer	Teachers provide remedial or enhancement activity to help the participant to recapitulate lesson in the board game.

**Discussion**

CountEngpoly Board Game is a game which integrates English and Mathematics language. Logical-mathematical skill can be applied when the players count the numbers mentioned on the dice after they roll it. Besides, when the players try to solve problem-solving questions, they are required to use their logical-mathematical skill as well. For verbal-linguistic skill, the players improve their English language proficiency level. Besides experiencing fun learning, spelling activity could be done in a fun way. Less stress leads to meaningful and effective learning among the participants.

Due to the low literacy skills and numeracy skills among the pupils in the rural areas, as a researcher, I hope this board game will help the pupils in developing interest in English and Mathematics language. Proper guidance should be given to the pupils in order to provide equal opportunities for them to compete with the achievements of the pupils in urban areas. When there is low interest, this cause the pupils to be passive in learning.

The need to conduct this study is embracing game-based learning and play in learning in the formal education. Based on the past related studies, a journal titled 'Designing Playful Learning by Using Educational Board Game for Children in The Age Range Of 7-12' by Sara Mostowfi, Nasser Koleini Mamaghani and Mehdi Khorramar stated strengths of using board game in learning. The authors mentioned game boards as edutainment tool. Besides encouraging cooperation and solidarity between participants, board games exercise teamwork, a medium for passive solution of conflicts, reunite participants and the teachers in a creative and vibrant enjoyment. These are some outlining tips for an effective board games, as stated by Harrish (2003):

- Trying to think outside of the box and think in creative ways.
- Assuming and enhancing board games as a learning and edutainment tool.
- Give the board games professional look.
- Develop a good set of rules and regulations.

The limitation that I found in this game is only four players are allowed to play this board game at a time. Therefore, teachers might have to think on other alternatives to overcome this problem. Perhaps this game could be printed out as mini module or mini board game so every pupils in the classroom get the opportunities in participating in this activity. This game suit the Year 4 pupils.

Board game has weaknesses as well. After analysing past related studies by Bahar Taspinar, Werner Schidmt and Heidi Schuhbauer titled Gamification in Education: a Board Game Approach to Knowledge Acquisition, a researcher might face conflicts in term of evaluation either there are technical test, real-world evaluation, students' questionnaire and results, teacher questionnaire and results or own observations. In my research regarding CountEngpoly Board Game, I decided to use simple method for the evaluation such as scores. Evaluating participants' achievement for my research was not quite complicated as my intentions and objectives were motivating the pupils to improve literacy and numeracy skills. Thus, I did not emphasize on evaluation too much. However, I can alter my research if I want to explore the research in details in the future. For now, I hope CountEngpoly Boardgame could contribute in literacy and numeracy skills in order to improve the education system in this education field.

### **Conclusion**

After viewing my own research and its relevant in education nowadays, as a researcher, I have to admit that, English language is a medium where the educators can integrate the subject with other subjects. The existence of various programmes such as Dual Language Programme and Highly Immersive Programme at school contribute to the ideas of using CountEngpoly Board Game as game-based learning. At the same time, we could embrace play in learning in the education.

Now, I have a greater understanding of the pros and cons in using board games in teaching and learning. Most of the educators who prefer traditional way of teaching and learning still have the mindset of not allowing play in learning. For board games, there is a limit in term of the usage in teaching and learning session. The educators are somehow

worried that game-based learning and play in learning will be emphasized too much and disrupt the learning objective which should be achieved throughout the lesson. However, I believe that we need creative minds now and board games support the thinking skills among the pupils.

The role of teachers and educators are not only teaching but also as facilitators and researchers in which we must ensure the objectives are being achieved throughout the research. In order to achieve the objectives, effective classroom management is important whereby the educators must understand that children love to play. We, as researchers and educators should know what are the best for these younger generations, preparing their needs to meet the future requirements.

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