

Board Game As A Medium For Teaching And Learning Port Management Course

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Abstract

This study aims to generate a board game prototype representing port activities. The study involved surveying activities taking place in the ports and developing a process flow model after each factors were identified. The process flow model that was developed was further transformed into board game method. At the end of the study, a prototype board game with a port activity theme will be produced in hope to be utilized as alternative information medium for players to understand every process that happens in the port. The board game prototype is assured to correspond with the course syllabus of Port Management (PMG 3073) offered by Universiti Utara Malaysia as a non conventional learning method to help students in learning.

Keywords: Board game, Port Management

1. INTRODUCTION

Board game is a game played using counters or pieces that are moved on a prepared board by complying to a set of rules. According to Murray (1978), the evolution of board game have progress more than 4000 years employing various material. Board game also consists of several modus operandi such as: game surface, number of players, pieces used for game, arrangement of pieces during game, rules of the game and ways to win the game.

The varieties of board game in the market can be classified into two categories namely; board game reflecting the reality of life and board game that does not represent the reality of life (Shapiro, 2004). Examples of board game that are readily available in the market is: Saidina, Sahibba, Cluedo and Blokus.

Although the Business Trend Report predicted the steady growth of electronic games market (Raymond, 2000) there are still consumers showing interest in activities that does not involve high technology like playing board game (The Encyclopedia of Games, 1998). This is due to the board game's features that are suitable to be played by people from a range of age level making board game not just suitable as an entertainment by individuals but in addition as a recreational family activity.

2. DIFFERENCE BETWEEN BOARD GAME AND COMPUTER SIMULATION

In general, board game can also be categorized as a simulation similar to computer simulation. According to Benoit, Norman and Michael (2000), even though simulation through computer is considered the best because of the processing capability offered and the realistic representation, board game also provides several advantages especially in terms of consumer interaction or player with the board game as long as the game taking place indirectly allows users involvement in the simulation activity. Computer solves problems without hesitation, computer not only provide accurate answers but also questions on how it is performed because it does not display what happens behind the processing, on the contrary board game are placed and monitored by every player offers more understanding to players concerning the progress of simulation activity.

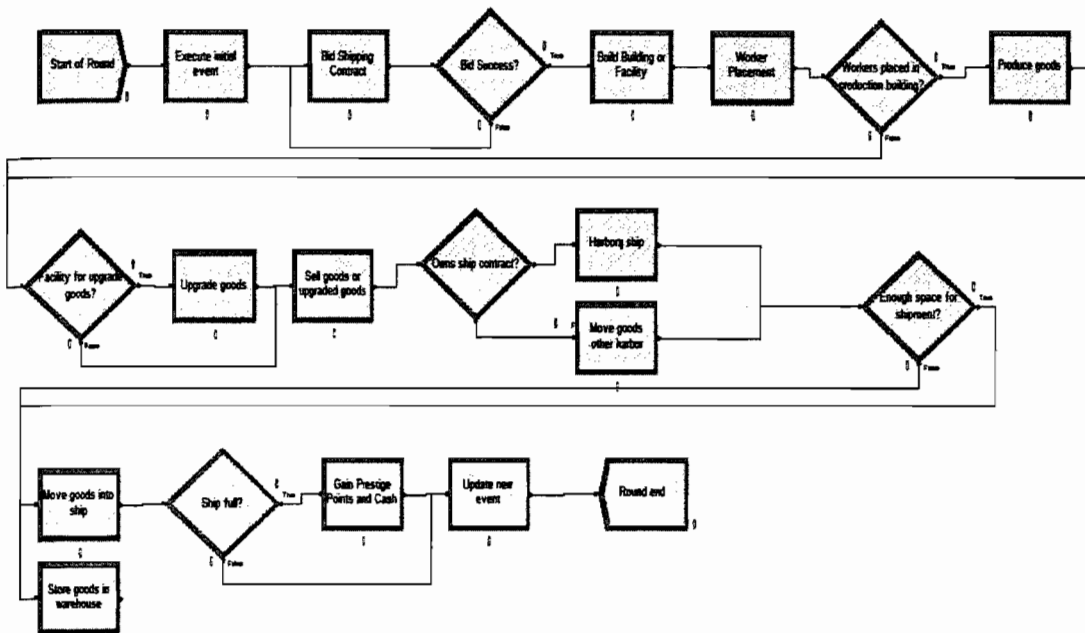


Fig. 1.: Process flow model for game mechanism

5 BOARD GAME IN DELIVERING KNOWLEDGE IN THE FUTURE

5.1 The Problem of Learning in Classroom

Lecturers deliver knowledge in distinctive ways such as writing on the blackboard, utilizing transparency and sometime simultaneously communicating with students, these are the usual scenario which occurs during lecture. This learning process has been continuously practiced by most lecturer from generation to generation and it may be safe to say that there has been no major development that can induced the interest and seriousness of student to explore what has been taught. This is because for such a long time student still are referring to notes and trying to understand, linking theories learned by imagining the real application. In other words, students need to imagine digesting a concept and theory without a clear learning medium.

The challenge of learning often arise especially for courses that involves reality application such as learning that involves a scenario or case such as the course of Port Management that is being discussed. Learning through conventional methods have failed to attract students' interest because of no direct involvement. The constraints that are faced by lecturer in delivering lectures are due to the lack of suitable medium to reflect reality application that requires student involvement.

On the other hand in the context of learning environment, problems exist in replicating actual scenario where it is unpractical to take student to location due to issues such as cost, security and so on. The result is that students' achievements still remain at a level of study theory without practicing.

Therefore, by looking into the combination of three contexts which are namely student, lecturer and learning environment, board game has the potential to become a main medium to stabilize the process structure of delivering lectures in today's academic system.

Through board game, player that are going to move the simulation of a process according to the fixed regulations of the game means that the player contributes to the flow and conclusion of a simulation, unlike with computer that will implement all process based on data or input inserted by players. Apart from that, simulation activity by board game involves player interaction with different players making the simulation decision more spontaneous and less structured due to external factors such as competitor influence in the game per action taken where these features are regarded as foreign when the simulation is done by computer. This means that board game also offers a realistic process of a problem with a class of its own.

3. BOARD GAME AS A LEARNING TOOL IN CLASS

Board game as an alternative medium for education has long been studied by researchers. Bekir et. al (2001) have tested the effectiveness of board game. The Ethics Challenge that was developed by Lockheed Martin Corporation for ethic learning among students in engineering programs have proven the effectiveness of learning where student are happy going through the experiences.

Garis, Ahlers, & Driskell (2002) emphasized that board game also provide benefit to players by training interpersonal skills through interaction among players than merely playing video game. By realizing the benefit presented by this activity this has influenced a number of researchers to include elements of entertainment education in board game.

Cochran (2005) used sport concept board game to test student's understanding on probability basic concept. According to McKeachie (1999), students that were exposed with understandable learning examples are more receptive to relatively complex concepts. Several other researchers also agreed that the use of board game can facilitate probability learning namely Gnanadesikan et al. (1997), Melrose (1998), Biesterfeld (2001), Gelman and Nolan (2002) and Feldman and Morgan (2003).

Lennon and Coombs (2006) developed a board game to expose the danger of dengue hemorrhagic to primary and secondary school students in Philippines. Millian (1999) proposed that games based on education and board game are generally suitable for the cognitive level of school students. This statement is supported by Corbeil (1999), who stated that board game provides an enjoyable platform besides enabling players to explore knowledge with other players. Board game is suitable activity for inside as well as outside the class whereby enabling self learning process at anytime.

Komisarczuk and Welch (2006) developed a board game for the learning of internet engineers. The board game enlightens players on how to successfully manage an ISP (Internet Service Provider). Respondent in this study agree that using the board game method is more effective for they can engaged in actual situation.

4. BOARD GAME FOR LEARNING PORT MANAGEMENT

4.1 Game Mechanism Process Flow Model

We have reviewed the course syllabus and compared it with the current practice in port management. For the sake of simplicity in the simulation, port activities are categorized into four main classes which are ship contracts, building facilities, production activities and port operations. A process flow model is developed (shown in Figure 1) to describe the activities in managing ports.

A board game prototype is developed based from the process flow model to replicate the scenario in managing ports. As designed, the board game exposes players to the pressures of competition including changes of prices, supply chain and uncertainties of events. Players must react by applying the solutions necessary to counter these pressures.

5.2 The Potential of Board Game in Delivering Lectures

Board game is capable of becoming an agent that can help convert conventional approach in the process of delivering lectures that has been practiced all this while. The element of entertainment education can be applied and absorbed into board game and further be used as an interactive component and tool for education. The introduction of board game as medium in the delivering knowledge process must be seen positive because of its ability to produce an enjoyable learning environment.

If previously students were only exposed with concepts and theories without application, so with the existence of board game the issue of student exposure on situation and actual situation can be overcome because board game is able to replicate actual scenario and picture clearly a process that has occurred. Apart from that, board game has the capability to narrate a process effectively thus the issue of reality application creation in learning can be overcome. In fact its small size with affordable cost makes the board game suitable to be made as a practical alternative reference other than textbooks.

Board game is also viewed to potentially be a social agent (Bob Scherer-Hoock, 2003) or an alternative which enables grouped activity especially implemented with more intensity. This can solve the problem of student involvement in class activity because students can feel a different and enjoyable learning environment.

Therefore, if board game could be accepted as medium of lecturing it will create the existence of a new dimension in assessment conducted by lecturers to students. Assessment may be done based on marks gained in the game apart from assignment, quiz and examination.

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