



## Acceptability of Economics Students in Playing Property for Sale and Use (PSU) Card Game

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**Abstract** – The study determined the acceptability of Property for Sale and Use (P.S.U) game as a teaching tool used in Real Estate Economics course for Economics students of Pangasinan State University. Specifically, the acceptability of the game is measured based on three indicators: attentiveness, relevance and satisfaction. Property for Sale and Use (PSU) Card Game is an exciting and strategic card game played by two to five players using a customized printed deck of 100 real property and real estate economics concepts cards. The game drew inspiration from several games such as Filipino poker and UNO. It is designed to help the students build a higher plane of awareness on all kinds of properties and understand the fundamental concepts of real estate economics. There were a total of 42 students who played and evaluated the acceptability of the P.S.U card game. Based on the findings, the developed card game obtained a total weighted mean of 4.6 with a descriptive interpreted of “Very highly acceptable”. This means that students are generally positive and appreciated the game along with its concept, content, purpose, and usage.

**Keywords** – acceptability, educational game, property trading game, P.S.U Card Game

### INTRODUCTION

Numerous studies have indicated numerous benefits of classroom games. Game play is widely recognized as an excellent method of increasing student engagement through active learning (Auman, 2011). Additionally, game play aids in the development of necessary skills and abilities (Klopfer et al., 2009), while also promoting teamwork, communication, and problem solving (Klopfer et al., 2009). (New Media Consortium, 2012). Dobbins (2012) argues that games are a fantastic adjunct to traditional lecture. The benefits of using games as teaching and learning tools have been identified as increasing student engagement, facilitating the integration of principles, providing students with experience in analysis and critical thinking, and facilitating the development of interpersonal and communication skills.

Educators are constantly confronted with the problem of providing a high-quality learning experience to students studying Economics. The Economics degree program is meant to equip students with practical understanding of economic ideas and the ability to do economic analysis and modeling, as well as economic policies, in order to better understand how the economy works. According to Greenlaw (1999), numerous economics education research advocate that students engage in more active and collaborative learning methods. Simkins (1999) noted in his study that "lecture-based teaching approaches do not adequately enhance students' cognitive learning abilities, attract good

students to economics, or motivate them to continue coursework in the discipline." This is congruent with the findings of a survey conducted by Allgood (2004) and published in the American Economic Review, which indicates that students rarely pursue economics as a free elective – particularly beyond the fundamentals. More may be done in the classroom to pique students' interest in economics education. McHaney (2002) asserted that games are a useful technique for teaching economics since they can boost students' enthusiasm and class optimism while also enhancing their learning experience. The Bachelor of Arts in Economics is a program offered in the Lingayen Campus of Pangasinan State University. The program is grounded on the theoretical as well as applied economics which are intended to sharpen the student's analysis and understanding of the complexities of today's economy. The students are exposed to various tools, methodologies, theories, and orientations that will assist them in pursuing their careers in the field of economics.

One of the elective courses offered by the AB Economics program is Econ 130 – Real Estate Economics. This course is designed to introduce to the students the fundamental principles of real estate economics and the techniques of handling real estate property transactions in an economy like the Philippines. It emphasizes the principles of real estate that are involved in the ownership and the transfer of real property interest and the different approaches to real estate values. As a general

An educational card trading game called Property for Sale and Use (Use) was developed and introduced to Economics student-learners to have a fun and interactive way of learning the real estate economics course.

As a developed educational card game, the Property for Sale and Use, abbreviated as P.S.U, is an exciting and strategic card game played by two to five players using a customized printed deck of 100 real property and real estate economics concepts cards. The game drew inspiration from several games such as Filipino poker and UNO. It is designed to help the students build a higher plane of awareness on all kinds of properties and understand the fundamental concepts of real estate economics. Furthermore, it is created to provide students with a way to enhance analytical and logical thinking skills as the game requires negotiation, strategy, counting and probability, and decision-making. The goal of the game is to be the first player to discard all cards on hand as quickly as possible. The player who gets rid of all the cards at the end of the gameplay wins the game.

There is a need to determine the acceptability of the developed educational card game to find out how the game affects the Economics student-learners on their learning.

### **OBJECTIVES OF THE STUDY**

The purpose of this research is to determine the acceptability of Property for Sale and Use (P.S.U) game as an educational tool used in Real Estate Economics course for Economics students of Pangasinan State University. Specifically, the acceptability of the game is measured based on three indicators: attention, relevance and satisfaction.

### **MATERIALS AND METHODS**

#### **Design and Procedure**

The descriptive survey method was employed in this study to determine the level of acceptability of the developed card game – “Property for Sale and Use (PSU). This game was utilized as an instructional material in Econ 127 – Real Estate Economics course. The respondents were 42 BA Economics fourth-year students who enrolled the Econ 127 course during the first semester of S.Y 2018-2019.

Figure 1: Sample P.S.U Cards



The game was introduced to the students through a game orientation where the description, objective of the game, game equipment, card game illustration, and mechanics were discussed.

The game mechanics of the game are as follows:

1. The deck consists of 100 cards, of which there are 15 cards of each property (residential, commercial, industrial and agricultural). Each property is ranked/valued from lowest to highest where 1 million is the lowest to 15 million is the highest. The deck also contains five PSU's Real Property with a corresponding number of deeds. In addition, the deck consists of real estate economic concept cards including opportunity cost, foreclosure, real estate bubble, depreciation, real estate change, trade off, real estate demand, real estate supply and property freeze.
2. The player will shuffle the cards and deal them evenly to the players. In a gameplay with four players, the dealer shuffles the deck and then deals one card at a time clockwise until each player receives evenly 15 cards. In games with three players, 54 cards may be dealt (18 cards per player) while 65 cards may be dealt (13 cards each) in games with five players.
3. The suit order of real property from highest to lowest is Residential (blue-card) where 1-million valued Agricultural property is the lowest and 15-million valued Residential property is the highest. The PSU's Real Property

is highest valued property with 1 deed being the lowest and 5 deeds being the highest.

4. The game begins when the player holding the lowest valued property, which is the 1-M Rochsheen's Poultry House Agricultural property depending upon the suit order being played, plays that card or a valid card combination including that card (with opportunity card). The card combination should be placed faced up in the center of the table. Play then proceeds clockwise. The next player must play a higher combination of property cards' same value, use a real estate economics (RES) concept card or pass. Once a player passes, he cannot return until a new round has started. If all players pass, the person who last put down a card combination starts a new round by playing any card or valid card combination.
5. In four-player gameplay, shuffled 40 cards are left to be drawn by players in every turn. Before the player discards a property or RES concept card, he will draw one card from the deck in each turn or round.
6. The player may use and discard partially or completely the real estate economics (RES) concept cards in hand at any time if he controls the round. However, if the player does not have a property card to discard in his turn, he can opt to use one real estate economics card. The following are the RES concept cards that can be used in play: opportunity cost (used to form a card combination of pair, trio, quartet, or 5-card); foreclosure (next opponent discards 1 or 2 property cards); real estate bubble (player's property card increases its value by 2, 3 or 4 million); depreciation (opponent's property card reduces its value by 2, 3 or 4 million); real estate change (player may exchange 1 card or 2 cards on hand from the deck of card); trade-off (player exchanges or trades off 1 or 2 cards from the preferred opponent); real estate demand (player draws 1, 2 or 3 cards from the deck); real estate supply (player donates 2 cards and return them back to the deck); and property freeze (player who receives this misses 1 or 2 turns).
7. Card combinations that can be used in play include pair, trio, quartet, and five-card hand. A pair is a two-equally valued card in which between pairs of the same rank, the pair with the higher suit wins. Three of a kind is a three-

equally valued card combination. Five-card combination follows the poker hand rankings including Royal flush (ten to ace with the same suits), Straight flush (any straight cards with the same suit), Four of a kind (plus an additional card/a Kicker) Full House (any three cards of the same number with any two cards of the same number), Flush (same suit), Straight (any straight cards). Likewise, a combination can only be beaten by a higher combination with the same number of property cards. A pair card can be won only by a pair card, a trio by a trio, a quartet by a quartet, and a five-card hand by a five-card hand.

8. Players are given the discretion to check and know the number of playable cards each player has in hand at any rate, and the player must answer honestly when asked.
9. The first player to get rid of all his cards wins and gameplay stops at this point. Another variation of the game is that gameplay continues until only one player still has cards in hand.
10. Officially, the game involves three rounds of gameplays. Game scoring involves acquisition of penalty points and award points. At the end of the gameplay, the number of unplayable cards left in each player is summed up corresponding to their penalty (negative) points while the player who wins the round earns 150 points. The accumulated points earned by each player are calculated and the player with the highest points is declared as the winner.

Series of game plays were implemented during the leisure time of students after learning the game concepts, The gameplay runs within three months.

After numerous gameplays, the students answered a survey questionnaire that contained the level of acceptability of the P.S.U game in terms of three constructs: attention, relevance and satisfaction.

Average weighted mean and Likert five-point scale were used to statistically treat the acceptability of the students on the game. SPSS was used as the statistical software package to analyze the primary data.

**RESULTS AND DISCUSSION**

Table 1  
Level of Acceptability of the Property for Sale and Use  
(P.S.U) Card game

Indicator	Mean	Descriptive Rating
<b>Attention</b>		
The game is well-designed and visually appealing.	4.81	Very highly acceptable
The interactive elements of the game catches my interest.	4.73	Very highly acceptable
The game provokes my curiosity to play it.	4.54	Very highly acceptable
The game is enjoyable and engaging to play.	4.89	Very highly acceptable
The game is simple to understand and easy to play.	4.62	Very highly acceptable
Average Weighted Mean	4.72	Very highly acceptable
<b>Relevance</b>		
The content and concepts embedded in the games are useful to me.	4.69	Very highly acceptable
The game fosters an engaging learning environment.	4.59	Very highly acceptable
The game enhances my analytical, social and decision-making skills.	4.77	Very highly acceptable
The game increases my motivation for learning.	4.66	Very highly acceptable
The game helps me improve my knowledge and comprehension of the course.	4.82	Very highly acceptable
Average Weighted Mean	4.71	Very highly acceptable
<b>Satisfaction</b>		
The game's content and concept can be applied in real life.	4.50	Very highly acceptable
The game benefits me in improving my academic performance in the course.	4.56	Very highly acceptable
The game provides me a sense of accomplishment and achievement when playing.	4.55	Very highly acceptable
The game makes the course more interactive and entertaining for me.	4.65	Very highly acceptable
The game gives me an overall good experience.	4.78	Very highly acceptable
Average Weighted Mean	4.61	Very highly acceptable
<b>Total Weighted Mean</b>	<b>4.67</b>	Very highly acceptable

The table 1 shows the level of acceptability of the Property for Sale and Use (P.S.U) card game There were a total of 42 students who played and evaluated the acceptability of the P.S.U card game.

Based on the findings, the developed card game obtained a total weighted mean of 4.6 with a descriptive interpreted of “Very highly acceptable”. This means that students are generally positive and appreciated the game along with its concept, content, purpose, and usage.

In terms of attention, the level of acceptability of has a weighted mean of 4.72 descriptively rated as very highly acceptable. Students believe that the The game is well-designed, catches interest and provokes curiosity to play, fun to play and the game mechanics are easy to understand. In the study of Cheng (2013), it was investigated that educational games are considered challenging, imaginative, and delightful, embedded within a narrative, and exhibited with clear rules— provide a perfect context for students to engage and learn.

According to relevance, the P.S.U card game is also descriptively interpreted as “Very highly acceptable” supported by an a weighted mean of 4.71. This suggests that the developed game is beneficial, creates a fun learning atmosphere, improves intellectual, social, and decision-making skills, increases motivation to learn, and assists in improving knowledge and comprehension of the course.

In account for satisfaction, the developed game is descriptively rated as “Very highly acceptable” supported by a weighted mean of 4.67.

**CONCLUSION AND RECOMMENDATION**

The developed educational board game – Property for Sale and Use (P.S.U) was developed as an educational tool to supplement learning in real estate economics course. It is designed to help the students build a higher plane of awareness on all kinds of properties and understand the fundamental concepts of real estate economics. In terms of its acceptability, the game is highly acceptable among students who used and played it. The students are generally positive and appreciated the game along with its concept, content, purpose, and usage





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