ABSTRACT

We created a simple game to help students plan their career in relation to money and happiness. Traditional career education has an over 40-year history and is quite important, but it lacks financial aspects. While following your dreams can make you happy, having money is also needed for achieving happiness and success in life. To teach students the proper balance between career and happiness in relation to money, we designed our card game named BASE Life Planning Game. It has two different stages, which are adjustable by the settings of the cards. Players are deemed to live until 75 years of age and select a job and residence every five years. The first stage urges players to spend money in the pursuit of happiness. The second stage encourages players to be more conservative. In our experiment, all players bankrupted in the first scenario when they retired from their job. After analyzing the reasons by midterm debriefings, they played the game again and now found a balance between spending and saving money.

Key Words: Career, Cost, Happiness, Gaming, Card Game, Board Game, BASE

INTRODUCTION

Thai people are said to be not good at considering future events and to value current happiness (Sanuk in Thai) more than future financial security. In general, Thai people find it is difficult to envision what life would look like at, for example, fifty years of age. How old would their parents be, how many kids would they have, what would their position be in the company, and what would be the cash flow in their households. Instead of addressing these difficult questions, they tend to spend money. Previous literature and games focus mostly on finding a student's talent, brushing up skills, and becoming successful in the business world. However, any educational method or game that does not take finance into account lacks reality. In planning your life, you need to think about such things as income, expenses, and deposits. In this research, we tried to combine current career education methods and financial concepts by means of a new card game. We want to use the game for teaching undergraduate students at Sirindorn International Institute of Technology, Thammasat University, Thailand.

RESEARCH BACKGROUND AND PURPOSE

Previous Career Education and Its Problems

The concept of career education is an old one. Brolin points out that this concept was officially introduced to U.S. educators in 1971 by the U.S. Government in a textbook for teachers of higher education [1]. Goldhammer proposed the concept of career education and distinguished four different models: (1) the school-based model, (2) the employer-based model, (3) the home-based model, and (4) the residence-based model [2]. In the 21st century, career education is also called career design, and many textbooks have been published on this topic. Arthur and Rousseau [3] mention more than 100 publications on career design. Irving
and Marik [4] argue that teachers must encourage students to learn about the global labor market. However, despite a mountain of literature, few publications focus on the financial aspects of career planning. In his book, Hardy discusses finance, but only sparingly [5]. He states that helping students with the financial aspects of their career is an important task for modern universities.

Games are a useful tool in education, and several games exist that teach students how to plan their career. Baker and Popowicz introduced such a game in the 1980s [6], and Kirk and Kirk introduced 60 training games for career development in the 1990s [7]. However, these games pay hardly any attention to the financial side of career development, perhaps because money is considered to be a dirty word in education. Nevertheless, finance should not be discarded. Students that have the skills for becoming a medical doctor, for example, are often forced to give up their dream because of financial problems. If training existed on how to finance yourself by scholarships, such situations could perhaps be prevented. Therefore, we decided to create a new training game that also covers the business and financial aspects of career planning.

**Target Students**

We designed the game for fourth-year undergraduate students. They are mostly 22 or 23 years old and want to pursue a career in business.

**Learning Goal**

The teaching purposes of the BASE Life Planning Game are as follows:

1. To help inexperienced students to consider their long-term prospects in life.
2. To help students understand that money and happiness are not the same but are nevertheless strongly related.
3. To help students understand the importance of having enough savings after retirement.

**SCENARIO AND MAJOR IDEAS**

**Scenario**

The basic scenario of the game is as follows:

1. A player is a 22-year-old student.
2. At 25, after graduation, the player starts working and makes a deposit (200,000 B).
3. The player is single and lives in a studio condominium.
4. At 30, the player marries and moves to a larger condominium.
5. At 35, the player has two kids, and they move to a big house.
6. From 40 to 60, the player works hard, gets promoted, and increases his or her salary; the salary raise much faster than the inflation rate.
7. At 60, the player retires and becomes a pensioner. The family income drops, and if the deposit is not high enough at this moment, the player is declared bankrupt.
8. At 75, the player passes away. Cash, deposits, real estate, and vehicle are sold at market price.

**Happiness Points**

Entertainment is an integral part for people to enjoy a life. As we explained, happiness (Sanuk in Thai) is a symbolic word to express the mindset of Thai people. The player can buy an excellent real estate, a good car, and enjoy traveling. By doing so, the player can collect Happiness Points (HPs) and retreat. Happiness does not mean having a lot of cash. Without money, the player must be content with a simple life, but also a large amount of money does not ensure happiness.

**Winner**

There are two types of winners in this game. In agreement with the mindset of Thai people, a player who gathered the most HPs will be defined as the top winner. However, we also consider the balance between cash and HPs, and the player who does best in that respect will be the other winner.

**Two-Stage System**

There are two types of card sets that affect a player’s decisions. In stage one, we use a "squander model" to let players consume, but the sustainability of their cash flow is not ensured. After stage one, we insert a short debriefing with presentations and then proceed to stage two, using a "conservative model." To evaluate the game’s teaching achievement, we hold a questionnaire at the following phases in the game: 1) before stage 1, 2) before the short debriefing, 3) after the debriefing, and 4) after stage two.
ITEMS

Job Opportunity Card

Players do not hesitate to change jobs or move to a new company when an opportunity arises. If the salary or position is better, players will change their job. Players can draw a card, and if the wage or position is higher than in the current appointment, they accept a position in the new company. If players wish to stay in the current company, their salary is raised. In this game, salary and expenses for five years will be paid at once. So, every five years, they can gain quite a lot of cash. Salary or promotion provides happiness and means that players can gain HPs. At 60 years old, they get a card called Pensioner. Figure 1 shows some examples of cards.

FIGURE 1

Job Opportunity cards. Salary increases 3% per year and cards are prepared separately depending on the number of players. Pensioners can receive quite a lot of money, and they can raise their annual income by 400%.

Housing Card

In this game, players change residence according to their age and the size of their family, as shown in Table 1. A small condominium is cheaper than a big house, and buying a house is better than renting one.

TABLE 1
PLAYER’S AGE AND FAMILY STATUS

<table>
<thead>
<tr>
<th>Player’s age</th>
<th>Spouse</th>
<th>Parent</th>
<th>Kids</th>
<th>Total number of family members</th>
<th>Suitable house type</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>Studio</td>
</tr>
<tr>
<td>25</td>
<td>Start to co-live</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>Studio</td>
</tr>
<tr>
<td>30</td>
<td>Officially married</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>Two-room condominium</td>
</tr>
<tr>
<td>35</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>Medium house</td>
</tr>
<tr>
<td>40</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>Large house</td>
</tr>
<tr>
<td>50</td>
<td>-</td>
<td>Pass away</td>
<td>2</td>
<td>4</td>
<td>Medium house</td>
</tr>
<tr>
<td>55-75</td>
<td>-</td>
<td>-</td>
<td>University</td>
<td>2</td>
<td>Small house</td>
</tr>
</tbody>
</table>

Every five years, players draw a Housing Card. If the card matches their need, they can move into the new residence. If the card does not match their need, they must rent a house at a fixed rate and pay the rent for five years at once. To buy a house, they...
can use a bank loan for twenty years. To simplify the rule, we dismiss the interest. They pay 25% (5 years in 20 years) in cash. Calmly living in a fixed place increases the number of HPs, as the cards show.

**FIGURE 2**

Housing cards. Players must pay five years rent or housing loan at once, but they have enough money to afford the payment.

![Housing cards](https://goo.gl/PC8P67)

No.CR-001
**RENT STUDIO**

2 Person 24 Sqm
Rent 12,000B/Month
360HP/Month

No_HS-001
**FOR SALE 4LDK**

6 Person 240sqm
2.4 Million Baths
Rooan 10,000B/Month
100HP/Month

No_HS-001
**Castle FOR SALE**

6 Person 720sqm
7.2 Million Baths
30,000B/Month
300HP/Month

**Happiness Card**

Wake up, work, and sleep—this would be enough for a business person, but one needs to enjoy life as well. Of the many types of life's pleasures, we select two: vehicles and travel. A new car and its conveniences make people happy; therefore, they get HPs. Travel enriches people's mind and thus also means more HPs. For both treats, players must pay in cash. Figure 3 shows examples of cars, and Figure 4 shows examples of foreign tours.

**FIGURE 3**

Vehicle cards. Players must buy immediately, but they have enough money to afford the payment.

![Vehicle cards](https://goo.gl/AJT5TQ)

No.V-101
**Compact Car**

360,000B
3,600HP

No.V-202
**Deluxe Car**

1,440,000B
28,800HP

No.V-502
**Super car**

2,400,000B
80,000HP
Deposit Card

This card is used only in stage 2. Seeing that your salary or bonus has increased by the amount shown on the card makes you happy. The remaining cash is an insurance for unexpected costs and for expenses in the future. In Thailand, it is still common to receive 0.5% to 2% interest per year. An amount of 5% for five years is added when players deposit money in the bank. Players also earn HPs. In this case, we provide 1% of the total deposit as HPs. Figure 5 shows an example.

FIGURE 5

Example of a Bank Deposit Card

Calculation Sheets

Players must calculate how much cash they have after they have drawn a card. In the calculation sheets, they also calculate, by hand, the number of HPs, as shown in Figure 6.
BASE LIFE PLAN GAME STAGE 1

From August 14 to August 24, 2018 we developed the game and completed the trial of stage 1. In this section, we report on the effectiveness of the new game.

Flow of the Game

We divided ten fourth-year students into five teams. All students are genuine beginners in educational games and have never considered their long-term life prospects in a way as shown in Table 1. The game starts when the players are 25 years old. They have three years of work experience and own 200,000 B. We continued the game until all five teams are 65 years old.

Setting of Cards

We can summarize the characteristics of the card settings as follows:

1. We made it easy for players to increase their salary and to become promoted.
2. We provided cheap and good residences at every opportunity. We urged the players to rent a residence and suggested not to buy properties.
3. We provided quite entertaining cards and provided a lot of HPs on vehicles and travel.

Typical Student’s Behavior

Most teams became rich in cash but did not bother to save money for the future. A five-year salary is enough to afford the rent of a new residence, and they purchased many cars and frequently visited foreign countries. One of the teams went on tour around the world four times in a five-year period. One team purchased seven supercars when they were 50 years old. Because they had forgotten that they would become pensioners at 60, they experienced a sudden cash shortage for rent and loan, and all five teams bankrupted at 65, and the game was over.

MIDTERM DEBRIEFING

It took only one hour to see unhappy end of the game. We had a Midterm Debriefing Session. We explained to the students that they should not spend all their cash, even when it seems that there is plenty of money to go around. We told them that inflation is 3% per year. We further pointed out that they had not read the manual carefully and lacked a strategy for paying rents or loans after becoming pensioners, although the risks of not having a good strategy were announced at the beginning of the game. They learned to fear cash shortage while enjoying short-term happiness.

BASE LIFE PLAN GAME STAGE 2

After the bad experience of stage 1, the students went on to stage 2, in which their performance much improved

Setting of Cards

FIGURE 6

Example of a cash and HP calculation sheet. The left side shows an example of a 25-year-old player, and the right side an example of a 30-year-old player. Following BASE’s tradition, calculation by hand is required. In stage 1, savings do not contribute to HPs but just remain in the form of cash for the next five years.
We can summarize the policy of the card setting as follows:

1. We made it easy for players to increase their salary and to become promoted, but we now took into consideration the inflation rate like a real society.
2. We provided residences with appropriate conditions at every opportunity. We urged the players to buy a house as soon as possible, to be able to live freely after retirement. We did not encourage players to stay in rented accommodation, especially in expensive rooms.
3. We provided appropriate cards and provided a lot of HPs on vehicles and travel.
4. We used deposit cards and provided 0.1% HP for new deposits to let students prepare for the future.

Typical Student’s Behavior

From the beginning of the game, the students were very conservative and tried to deposit money into savings. The students purchased cars but not very expensive ones, and they tended to keep the same car for a long time. They often went on a trip to try to win the game, but they did not spend much money on it. Most of the students purchased a small condominium when they were 30 to 40 years old and finished payment by 50 to 60 years old, after which they could live in the house without financial troubles.

Final Debriefing and Results

Within the five teams, there was not a single bankruptcy. All teams ended up with a lot of cash and HPs and therefore all of them got a prize. We made students present their strategy as a final debriefing. We believe that the BASE Life Plan Game has achieved its teaching goal and succeeded in training students in career planning.

LIMITATION AND FUTURE PLANS

We experimented with the same students and only with ten students in total, divided over five teams. Moreover, the students were to a certain extent aware of the purpose of the experiment. For example, the card settings were kept secret and were only known to the teacher, but students had some ideas about them before the experiment. So, at this moment, we cannot conclusively prove that the game is effective, as the number of students is too small to use statistics, but we are planning to carry out a large-scale experiment as soon as possible.

CONCLUSION

The BASE Life Plan Game is unique in that it unites different areas and focuses on career design and cash flow management in relation to the pursuit of happiness. For people to survive in this modern world, both career design and a business mind are essential, so we can apply the game in various situations. Our research has just started, but we are confident that we are going in the right direction. We will further extend and enrich our research to create a game that can contribute to the business education and career development of future businesspersons.

REFERENCES