

CHAPTER TWO

REVIEW OF LITERATURE

This chapter reviews the literature in 7 main areas along with a summary: (1) Videogame Review (2) The Concept of Videogame Addiction, (3) The Concept of Behavior, (4) The Concept of Motivation, (5) The Concept of Attitudes, (6) Previous Similar Studies, and (7) Summary.

2.1 VIDEOGAME REVIEW

2.1.1 Definition of Videogame

Harris (2001) has reviewed many studies in the videogame area and she found some overlapping definitions between the terms “computer games” and “videogames”. She found that the definition of “computer games” was related to games played on personal computers while the definition of videogames covered a wider range of contexts which included videogame consoles, handheld games or personal computers.

However, according to the Oxford advanced learner’s dictionary (2000, p. 1501), a video game is “a game in which you press buttons to control and move images on a screen”. A television is most commonly used as a screen device, but other inventions with a display device such as a personal computer and a mobile phone can be transformed into a videogame as well. Therefore, it can be concluded that this online dictionary has defined a computer game as one part of the videogame definition. This is similar to Frasca’s definition for a videogame (cited in Newman, 2004, p. 27) which is “any form of computer-based entertainment software, either textual or image-based, using any electronic platform such as personal computers or consoles and involving one or multiple players in a physical or networked environment.”

2.1.2 Classifying Videogame

Due to its close relationship with computer innovation, videogames can also be divided into two aspects: Hardware - Videogame Systems (Platform), and Software - Videogame Genres.

2.1.2.1 Videogame Systems (Platform)

1. Computer game: This system will be used for both online and offline games which can be played on a Personal Computer or Notebook.

2. Console game: In the USA, thirty-three percent of households were reported as having one videogame console in their house (Entertainment Software Association, 2007). This system basically needs a display device which is most commonly a television for its operation. Moreover, software cartridges are also needed for complete operation. There are many console games that are popular amongst gamers around the world, like Wii, PS2, Xbox 360 and so on.

3. Handheld game: It is a portable game which players can take along with them everywhere. Some of these systems have only one game to play while others can provide more than a hundred games or offer changeable game cartridges. Game Boy, Nintendo DS and PSP are popular handheld games amongst students nowadays, which they can carry with them to play with their friends at school.

4. A coin-op game: In Thailand, this system is mostly seen in the shopping malls or supermarkets. Players need to drop a coin into the machine to operate or to play the game.

5. Others: Many inventions with a display device such as a mobile phone or PDA can be used as a videogame device as well because many manufacturers nowadays have included a videogame as an additional option in their products.

2.1.2.2 Videogame Genres

Like other media, genres are adopted to classify a videogame as well. In the high value of the videogame market, the manufacturers have to develop their products to be more attractive by introducing new innovation with more variety of

videogames, so videogame genres nowadays are increasing rapidly and sometimes one game can be categorized into many genres. However, Berens and Howard's study (as cited in Newman, 2004, pp. 11-13) regrouped this variety of videogame genres into seven game types: 1. Action and Adventure, 2. Driving and Racing, 3. First-Person Shooter, 4. Platform and Puzzle, 5. Role-Playing, 6. Strategy and Simulation and 7. Sports and Beat-'em-ups.

The above classifications are partly similar to those of the British Academy of Film and Television Arts (as cited in Ellis, Heppell, Kirriemuir, Krotoski & McFarlane, 2006, p. 7). BAFTA classified videogame genres term as follows: Action and Adventure, Casual, Children's, massive multi-player online game, Puzzle, Role-playing games (RPG), Simulations, Sports, and Strategy.

2.2 VIDEOGAME ADDICTION

Dr. Douglas Gentile (Martin & Oppenheim, 2007, p. 6) pointed out that playing videogames a lot and videogame addiction are not the same thing. For example, when a youth is addicted to videogame playing, he/she does not only play videogames a lot, he/she also behaves him/herself in a way that is potentially damaging to his/her lives. The results of such behaviors are poor school/work performance, aggressive behavior and obesity. When youths answer at least 6 of the following 11 questions with a "yes", they will be classified as a pathological gamer (game addiction).

1. Over time, have you been spending much more time thinking about playing videogames, learning about videogame playing, or planning the next opportunity to play?
2. Do you need to spend more and more time and/or money on videogames in order to feel the same amount of excitement?
3. Have you played videogames as a way of escaping from problems or bad feeling?
4. Have you ever lied to family or friends about how much you play videogames?

5. Have you ever stolen a videogame, from a store or friend, or have you ever stolen money in order to buy a videogame?
6. Do you sometimes skip household chores in order to spend more time playing videogames?
7. Do you sometimes skip doing homework in order to spend more time playing video games?
8. Have you ever done poorly on a school assignment or test because you spent too much time playing videogames?
9. Have you ever needed friends or family to give you extra money because you spent too much money on videogame equipment, software or game/Internet fees?
10. How often are you successful at limiting how much you play videogames?
11. Do you become restless or irritable when trying to cut down or stop playing videogames? (Martin & Oppenheim, 2007, p. 6)

2.3 THE CONCEPT OF BEHAVIOR

Niyada Chunchawongse and Ninnart Olarnvoravut's study (อ้างอิงใน ดวงลาก เป็ยมอยู่สุข, 2549, น. 28) defined behavior as the observable manner of humans showing their attitudes towards particular thing or situation. People will choose to react in a way that perfectly fits each situation. However, there are some behaviors which are almost unnoticeable so to observe such behaviors, various kinds of helping tools are needed. These tools are associated with perception because when people have knowledge of things, it will then affect their attitudes and behavior. According to Sasivimon Tamthai's study (อ้างอิงใน ดวงลาก เป็ยมอยู่สุข, 2549, น. 28-29), behavior is composed of seven components: goal-setting, readiness, situation, interpretation, response to consequence, confirmation, reaction to thwarting.

Sucha Chan-aim's study (อ้างอิงใน ดวงลาก เป็ยมอยู่สุข, 2549, น. 29-30) described that people have a goal for all behavior they have demonstrated and the principles of a behavioral study are as follows:

- There is a reason for all behavior.
- The same behavior may come from different reasons., and
- One behavior may influence by many reasons.

For children, the factors influencing their behavior are from two needs: their physical needs and social needs. The behaviors influenced by their physical needs are clear and can be seen easily. For example, they drink a glass of water because they are thirsty. In terms of social needs, it may cause many types of behavior. For example, if children need love from their parents, they may try to work hard on their study and try to be an obedient child.

2.4 THE CONCEPT OF MOTIVATION

Bolles's study (as cited in McConnell & Philipchalk, 1992, p. 204) notes that people are always active or doing things because of their internal needs and the external environment around them. It was said that human behavior is driven from one's own choice. Among the many actions which they can take, people will behave in the way that meets their most satisfactory choice right then. Such a choice is influenced by their past experience and their social environment at time. Therefore, Bolles specified that the actions of people can be predicted if enough information about the target people's background and knowledge of the situation at that time are available.

Maslow's Theory of "Self-Actualization"

Maslow's hierarchy (as cited in McConnell & Philipchalk, 1992, pp. 179-180) was believed to be one of the few motivation theories which covered the biological, the social, and the intra-psychic approaches. Maslow positioned the five needs of humans into a hierarchy model or a ladder where the simplest biological motives were placed at the lower parts of the model while the most complex of intra-psychic and social needs were placed at the upper parts.

1. *Biological needs*: At this basic level, people are similar to babies; their primary or biological needs must be satisfied first before they move to the higher level of safety needs.

2. *Safety needs*: This level can be described easily through children's thought. When their primary needs are satisfied, children now are ready to explore the world. If they feel that the environment they are dealing with is unsafe, the belongingness or love needs seem unnecessary for them.

3. *Belongingness or love needs*: 'No man is an island, complete to itself.' once said by the poet John Donne. This poet can well describe this need because this level is the social need. People on the level of *belongingness or love needs* will require love and need to be loved by other people or to be part of the group of people. They will affiliate with others in order to receive a sense of approval and belonging.

4. *Esteem needs*: When people are part of social environment, they will receive guidelines from the group. Such guidelines will show what they should do so that they will be success in the future, and the group will be the helper to give them feedback on the extent to which they achieve that life goal. The result is their self-esteem will increase when that achievement comes closer.

5. *Self-actualization needs*: At this level of needs, Maslow said that people who have these needs must have confidence in themselves or ensure that their esteem needs are met first so that they will feel secure enough to make themselves feel special in social contributions.

2.5 THE CONCEPT OF ATTITUDES

Freedman's study (อ้างถึงใน ดวงลาภ เปี่ยมอยู่สุข, 2549, น. 22-23) defined that attitudes have stable characteristics which are composed of the following three components.

1. *Cognitive Component or Beliefs*: It is the first element of attitudes. This component is related to understandings and beliefs. People need information or knowledge of a particular thing before they can have a give bad or good opinion toward it. For instance, a Chinese person who has never been to Thailand cannot have

an opinion towards Thai culture because they do not have a great deal of knowledge about Thai culture. Moreover, experience and belief in people have a huge amount of influence over their attitudes, so different people have different attitudes because their experience and source of information about one thing are not the same.

2. *Affective Component or Emotions*: These component or emotions can indicate what people feel towards things they have an opinion on. Emotions are from their beliefs, past experience and other feelings they have received without awareness. For example, people have a bad attitude toward an actress automatically as a result of receiving news about her bad behavior through the media.

3. *Behavioral Component or Actions*: This last component is related to the actions that people will make toward things they have an opinion about. Like other components, experience and belief affect how someone behaves as well. For example, people's bad attitudes toward an actress mentioned before might lead them to ban or not to watch any of her performances anymore.

2.6 PREVIOUS SIMILAR STUDIES

Because of the problem of videogame overuse, especially among adolescents, many researchers around the world have focused their studies on videogame playing behavior. This includes researchers from Thailand.

Pornumpai Viravan (2005), in *The Study of Online Game Players' Behavior: A Case Study on Online Game Shops in Siam Square*, aimed to examine the behavior of the online game players at online game shops in Siam Square. She found that male online gamers played online games more often and played online games for a longer period of time than female online players. While females always played online games alone, most male online gamers loved to play with their friends. The first reason making almost half of the respondents like to play online games is their personal preference, not their friends, which was the next influencing factor. She also found that all of her respondents had experienced illnesses such as eyestrain, headache and fatigue from playing games excessively. However, all of them were otherwise healthy, and most of them still had good eyesight.

According to his online gaming behavior study called *Patterns of Behaviour in The Play of Online Game of Children and Adolescents*, Tuanglap Piamyoosuk (ตวงลาภ เปี่ยมอยู่สุข, 2549) revealed that age and education level influenced teenagers' choices in online game playing. The enjoyment was the reason making teenagers like to play an online game for relaxation and stress relief. Moreover, the features of videogames which were necessary for the teenagers' choice to play an online game were the variety and the realism of a game as well as games which do not require any time limitations, and their favorite time for online gaming was after 10 p.m. This play time might continue to the following morning sometimes at the internet café which is still open despite being over the legal time limitation. Gamers preferred this period of time because they did want to "join the crowd" in the evening. Moreover, Tuanglap Piamyoosuk noted that some respondents had mentioned of the benefits that they had received from playing online games. They stated that their computer skills had developed thus improving their grade point average in computer subjects at school.

Even though the fact that playing computer games can result in many negative effects had been revealed, according to ABAC Poll Research Centre ("Thai Youth," 2007), 26.3% of Thai youth aged 10 to 15 play computer games everyday or almost everyday. The average 10 to 15 year-old plays two hours and 44 minutes a day while the average 16 to 20 year-old and 21 to 24 year-old plays three hours and 13 minutes a day and three hours and 21 minutes a day respectively.

Additionally in the USA, youths aged 8 to 12 years-old reported spending a great deal of time playing videogames. 81% of them played at least once a month and most of them were boys (94%). On average, they spent 13-14 hours per week gaming and the study found that the more time youths spent on gaming, the more common it was for them to have poor school performance, have a fight with others and/or to gain more weight. Such fighting behavior was reported to have only been influenced slightly by violence in the videogames players chose to play. While around 30% of boys reported they have ever felt like they were addicted to videogames, only 13% of girls claimed to have the same experience (Martin & Oppenheim, 2007).