THE APPLICATION OF GAMIFICATION IN
THAI ORGANIZATION

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THE APPLICATION OF GAMIFICATION IN THAI ORGANIZATION

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ABSTRACT

This study of the application of gamification in Thai organizations focuses on the benefits and drawbacks of gamification after it has been used in the training processes of Thai organizations. As a result, a research model has been created based on the perspectives mentioned above. The literature review of this paper will cover the definition and application of gamification. Also, the benefits that have been observed from the application of gamification in international organizations will be included, as well as a brief summary of the literature review. In the findings, the benefits and drawbacks of the application of gamification in Thai organizations which can be considered as a case study for organizations that would like to apply gamification into their training and development processes.

KEY WORDS:Gamification/ Motivation/ Training and Development

29 pages

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CHAPTER I
INTRODUCTION

As technology is developing all the time, there will be news of interesting developments that attract many people's attention. These developments in technology will help human lives to become a lot easier, and some will enable mankind to make many important new discoveries, while some will enable mankind to enjoy their lives more than ever before.

As one of the growing numbers of gamers around the world, I believe that gaming can used for more than entertainment. In my childhood, I was one of the kids who were not good at English. Back in 1999, I was introduced to a video game named "Final Fantasy" on "Play Station" from Sony Entertainment. It was like a whole new world to me. I was fascinated by the virtual world that it created. However, the language was an obstacle to me in understanding most of the details that this virtual world was trying to present and used to tell its marvelous stories. That was when I realized that I had to study English seriously. I bought a dictionary and started to search for any word in Final Fantasy of which I did not know the meaning. Now, I am one of those people who can use English fluently in their daily lives.

Final Fantasy did not take the role of an English teacher for me, but it worked as the motivator to make me eager to learn English in order to understand the story that the game itself was telling me. That was when I started to believe that, as technology develops, video games can become a part of the training programs many institutes and organizations can choose as the tools for training people.

For example, Sid Meier's Civilization is registered as one of the video games that has been used in some education institutes in the subjects of geography and diplomacy, while Microsoft's Flight Simulator is one of the best simulators for training the pilots before they are allowed to fly planes when passengers' lives will depend on them.

In this paper, the use of games for training purposes can be called "gamification" or "serious games", as well as their applications. The benefits from various research

studies from many institutes and organizations will be introduced, while summaries and the findings of the outcomes in terms of enhanced knowledge and skills, as well as the level of the motivation of the users when applying the concept of the gamification to some of the leading organizations in Thailand will be presented, which will answer the main focus of the study of this paper, which is "What are the perceived benefits, as well as the drawbacks of applying gamification in training programs for shaping the proposed behaviour, the knowledge, as well as skills?"

   This paper will benefit those people who are interested in applying gamification, or the serious game, in the training methods of their institutes and organizations, and reducing the resistance and the bias towards gamification, as well as video games, among the older generation.

CHAPTER II
LITERATURE REVIEW

2.1 Definition

Gamification can be defined as the use of the elements that are considered as the parts, which can be found in games, such as scores, levels, achievements, and trophies, and to develop the contents in a non-gaming context. Gamification has been developed for use in many industries, such as financial, health, education, and the entertainment media, but is mainly designed to be used in learning and its development aspects. In accord with this definition, if a game is designed to serve this purpose, it is called a "Serious Game".

2.1.1 Game

By definition, "game" is defined as the activity which is conducted in digital or non-digital environments, where the participants are performing actions within a specific set of rules, instructions, and constraints (Groh, 2012).

Another word that should be understood when talking about gamification is "gamefulness". According to (Deterding, 2011), the game researcher, as well as the instructor for the game design and game studies at the San Francisco Art Institute and the University of California, "gamefulness" is used to describe qualities in terms of the experiential and behavioural aspects of the game. It is also considered as the counterpart of the word "playfulness". While "gamefulness" describes the qualities of a game, "playfulness", on the other hand, describes the qualities of playing that game. To conclude, playfulness can be developed by having gamefulness (Deterding, 2011).

2.1.2 Elements

With different types of game, there are several elements in each type that can be identified. These elements are unique and can only be found in specific types of games. For example, most of the types, such as turn-based strategy games, will allow

the players to create their own avatar in the games, while this kind of element is not available in most the real-time strategy games. On the other hand, real time reaction is one of the characteristics in real-time strategy games, which is found less in t turn-based strategy games (Groh, 2012).

With many of these elements being found in different types of games, designing serious games requires a lot of knowledge of both training and development and game design. The designers need to know which elements will be used in order to match the knowledge, skills and sometimes attitudes that players are going to be trained and developed in (Groh, 2012).

The best known examples are: 1) American Army – Proving Grounds, which is Desired to simulate training and providing the experience of the battlefields for the US Army, as well as being an advertisement for the army in order to attract the attention of US civilians and 2) Microsoft Flight Simulator, which is Desired to simulate training in flight control without the risk of crashes caused by flight trainees (Groh, 2012).

2.1.3 Serious Game

According to Professor Michael Zyda, the Director of the USC GamePipe, Los Angeles laboratory, a serious game can be defined as "A mental contest, played with a computer in accordance with specific rules that use entertainment to further government or corporate training, education, health, public policy, and strategic communication objectives." (Julian Alvarez ; Damien Djaouti, 2012).

To sum up, a serious game is a game that has been developed in order to serve specific purposes, such as education, or training and development. However, it must not be developed for entertainment purposes.

Nevertheless, although Professor Michael Zyda has claimed that serious games have to be played with a computer, many serious games have been developed to be playable with other players in order to conduct group training, such as CivilizationEDU, SimCityEDU, and Minecraft: Education Edition has been used for educational purposes in some high schools in the United States of America (Grossman, 2016).

2.2 Applications

2.2.1 Background

The use of gamification in training and development, or a serious game as it also be called, has different backgrounds depending on the industries that use itused. One particular area that can be used to explain the reason why gamification is one of the choices that should be considered is its application in the health industry, especially in the field of surgery.

According to Soler and Marescaux from Strasbourg University, to train surgeons in the past, training itself required a lot of effort to conduct, as well as equipment, teachers, and most important, the subject for the surgeons to train on. This traditional method of training in the surgery cost not only a significant amount of budgets, but sometimes also raised questions about the safety of the patients who were asked to be the subjects for the training (Marescaux, 1998).

There are three phases in the developments of gamification for this kind of training.. During the first phase of surgery practice, the subjects varied from human mannequins, animals, and real patients. However, when the subjects are mannequins or animals, although the surgeon trainees had been equipped with the required knowledge and skills, it was very difficult to evaluate if the training was successful or not since the results from the training with the mannequins or animals might not one-hundred percent adaptable when performing the surgery on real patients (Marescaux, 1998).

In second phase of the surgery practice, the training still used human mannequins, animals, and patients as the subject. However, some developments can be identified. For example, the human mannequins were developed as human dummies inserted with artificial organs that could bleed when surgery was carried out. Nevertheless, although human dummies could be used for surgery practice, the cost of replacing the used artificial organs were very high and there were also questions about the quality of the results of this kind of practice (Marescaux, 1998).

In the third phase in the development of surgery practice, simulators were used for training in surgery. Using simulators, the training could be set up and conducted in many possible circumstances, such as the different conditions of the patients. One of the benefits that can be identified by using simulators is that there is no requirement

for the subjects to be replaced after the practice. Also, while trainees were using simulators, instructions about the surgery could be given to the trainees, which meant that the number of teachers required for the training was reduced (Marescaux, 1998).

2.2.2 Output

Since gamification, or the serious game, is Designed for making training more attractive to staff who need to attend the training sessions, the results of the training through gamification can be classified into two aspects.

The first aspect that gamification can help improve is the motivational outcome. As the gamification in the training can use gaming elements as the part of the training, by using points, leader boards, and badges which can motivate people to participate and use any of these motivators (Hamari, Koivisto, & Sarsa, 2014).

The second aspect that gamification can help improve is the behavioural outcome. This outcome is based on military badges of honour. Gamification rewards the users who can achieve specific criteria with rewards, such as trophies, or badges. This methodology enables gamification to create the desired behaviour among the users, such as consistently participating in the training and developing new strategies in order to achieve better results, which can then be used to real life (Hamari, Koivisto, & Sarsa, 2014).

2.2.3 Limitations

Although many studies on gamification, or serious games, report that there are many positive effects, outcomes, and benefits which can be identified when using gamification instead of traditional training, no report shows improvement in the desired knowledge and skills which organizations are aiming to enhance for the benefit of their employees.

According to Hamari, Koivisto, and Sarsa in the article "Does Gamification Work?" in 2014, of the 22 papers that have been studied, only 2 of them show that all of the tests returned positive results, while 13 of them returned parts of the test that were positive, but none of them returned that all tests are not significant, and 7 of them only concerned descriptive statistics.

Nevertheless, these papers show only the effects of gamification on users in terms of the motivational, psychological, and behavioural outcomes when the users were using gamification as part of a training programme. There are no papers showing the actual effects of the training on the users in terms of the application of knowledge and skills after training in the real world.

Even though there is no evidence to support these applications with regard to knowledge and skills in reality as mentioned, removing gamification from the training methods might lead to some disadvantages.

For example, users who use gamification as the primary method of training will tend to become addicted to it. Once an organization accepts a policy of giving up gamification, the users might lose their motivation to participate in certain activities which might lead to a reduction in performance levels, or even more serious issues such as resigning from the organization due a lack of motivation (Kumar, 2013).

2.3 Benefits

2.3.1 Failure is Acceptable

As the training in the gamification environment is set up in the virtual world, failing to achieve the goal is acceptable, especially in fields where success must be the only outcome, such as in the training of surgeons and pilots. For example, without using gamification, if a failure occurs in the training of surgeons, the training equipment it might not be possible to reuse the equipment which would lead to the loss of large amount of funds, while if the failure occurs in the training of pilots, it will be more serious, as the lives of both the trainee pilots and their instructor might be in great danger.

2.3.2 Rewindable

As gamification is a simulator that can be used at any time, also it can be set and have checkpoints at many stages of the training, the training can be restarted at any suitable point. For example, the users might understand most parts of the training and be able carry them out, but there will still be some parts that the users cannot understand, so the users can rewind the serious game to the checkpoints where the users need to

enhance their understanding. Also, since training through the gamification is the training in the virtual world, there is no extra cost for the tools and equipment used in the training when rewinding is necessary.

2.4 Summary

As many studies have explained, the main purpose of gamification in the business world seems to be to encourage and motivate users to participate in the process, and develop the desired behaviour which the organization would like to have as the standard behaviour, as well as the knowledge and skills which are important to the users in order to perform their jobs as expected.

In addition, the benefits of gamification which should be taken into account is that they provide a motivator for participating in the training sessions. Since most people in Thai society value fun activities that they can participate in, this benefit of gamification has attracted attention of some leading Thai organizations.

Unlike the training of surgeons or pilots, where failure is unacceptable in the real life, gamification in the business world mainly focuses on the shaping of desired behaviours as mentioned. Furthermore, gamification also works as the motivator for the users to participate in the learning and development of a system. As a result, gamification might not be a serious training tool for the business world, but it plays a huge part in encouraging the users to participate in the training while enjoying the fun environment.

In conclusion, since gamification provides the motivator in the training process, gamification might not suit everybody. Some people might prefer the traditional style of training where they can participate in the training, while some people cannot see or understand the difference between an actual game and gamification. However, many institutes and organizations, together with many supporting research papers, agree that gamification can help and improve the training process among the users, while gamification also helps to reduce the costs of training in the long-term because tools and equipment need to be replaced so often.
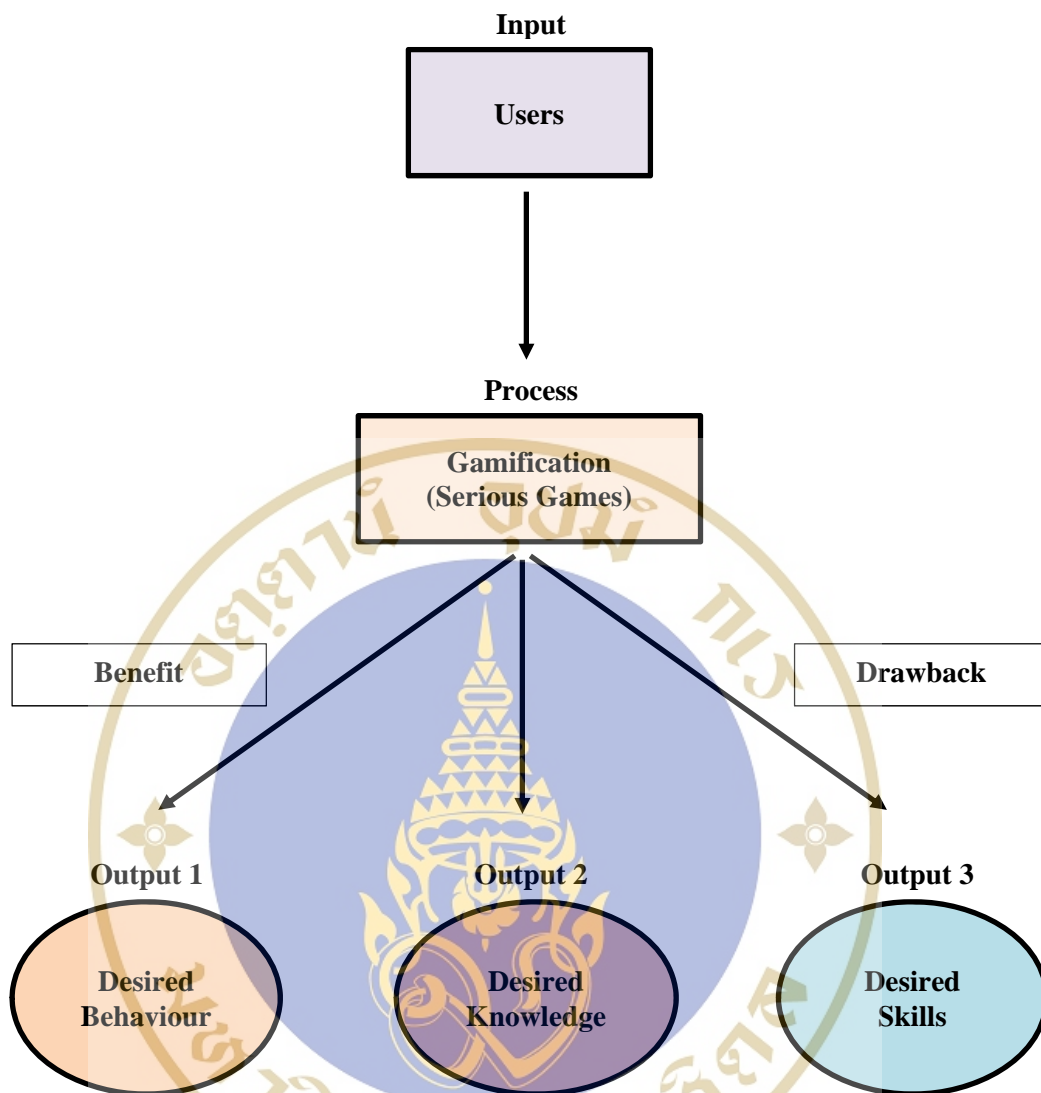
Input

Users

Process

Gamification
(Serious Games)

Benefit

Drawback

Output 1

Output 2

Output 3

Desired
Behaviour

Desired
Knowledge

Desired
Skills

Figure 2.1 Process of Gamification

CHAPTER III
RESEARCH METHODOLOGY

Throughout the study, a qualitative approach has been used in the research methodology with a semi-structured interviewing technique.

According to USC Libraries, qualitative research can be described as research that is not concerned about quantity, amount, intensity, or frequency. Instead, the qualitative researching methods are concerned with social experiences of the subjects, whose experiences can be retrieved from sharing and explaining the subjects' experiences, opinions, and beliefs (USCLibraries, 2018).

With this focus on qualitative research methods, the research will find out deeper information, such as understanding the underlying reasons and motivations. Also, qualitative research is commonly constructed by using unstructured or semi-structured techniques (DeFranzo, 2011). Nevertheless, in this paper, the structure that will be chosen is the semi-structured interviewing technique as mentioned above.

The semi-structured interviewing technique can be defined as interviews where the researchers have developed a set of interview questions and used them as guidelines for both the interviewers themselves and the interviewees to follow during the interviews. However, during the interviews, the interview questions do not have to follow any particular order. The interviewers can consider adding more relevant questions during the interviews if necessary, as well as removing some of the questions which have been already answered by the interviewees. The benefits of the semi-structured interview are that the interviewers have guidelines about what to ask to make sure that the interview questions will not lose their focus, and this technique also allows the interviewees to add any information that comes to mind since, unlike structured interviews, additional experiences, opinions, and beliefs are always welcome (Semi-structured Interviews, 2008).

As a result, by using qualitative research methods with a semi-structured interviewing technique, deeper information about the experiences, opinions, and beliefs of the people involved and their experiences with gamification in the leading organizations of Thailand will demonstrate that this is the best research methods for achieving its objectives.

CHAPTER IV
FINDINGS

In order to find the actual results of the assumptions that have been made, the interview questions below will be used as guidelines for the semi-structured interviews.

Interview Questions

The interviewees were composed of 10 interviewees, of which there were 2 managers, 2 coordinators, and 6 users. The interview questions were be adapted to be suitable for the different types of interviewees.

To obtain information of every aspect of gamification, the interview questions were divided into several sections: general questions, gamification questions, motivation questions and questions about the drawbacks.

The interviewees included the following:

1. Manager #1
2. Manager #2
3. Coordinator #1
4. Coordinator #2
5. User #1
6. User #2
7. User #3
8. User #4
9. User #5
10. User #6

4.1 Interviewees - Managers

4.1.1 General Questions

- Could you please introduce yourself?
- What role do you have in the organization?
- How long have you been in this position?

4.1.2 Gamification Questions

4.1.2.1 General Questions

- How long has gamification been used within your organization?
- What were your expectations in terms of the employees' reactions when gamification was introduced to your organization?
- When gamification was first introduced in your organization, what was the actual reaction of most of the employees in the organization?

4.1.2.2 Desired Behaviour

- After gamification was used in your organization, did it help shape the desired behaviour among the employees in the organization?

4.1.2.3 Desired Knowledge

- After gamification was used in your organization, did it help shape the desired knowledge among the employees in the organization?

4.1.2.4 Desired Skills

- After gamification was used in your organization, did it help shape the desired skills among the employees in the organization?

4.1.3 Motivation Questions

- Does gamification motivate the employees in the organization to participate in the training sessions?
- Are employees in the organization willing to attend further training sessions when they are informed that gamification will be used?

4.1.4 Drawback Questions

After gamification has been used within your organization, were there any drawbacks that you noticed?

4.2 Interviewees – Coordinators

4.2.1 General Questions

- Could you please introduce yourself?
- What role do you play in the organization?
- How long have you been in this position?

4.2.2 Gamification Questions

4.2.2.1 General Questions

- How long has gamification been used within your organization?
- What were your expectations in terms of the employees' reactions when gamification was introduced to your organization?
- When gamification was first introduced in your organization, how many employees in the organization were really interested in it?

4.2.2.2 Desired Behaviour

- After used the gamification in your organization, does it help to increase the number of the participants in the training session?
- After used the gamification in your organization, does any employee ask about the future training session that used gamification?

4.2.2.3 Desired Knowledge

After used the gamification in your organization, could you please rank the top three knowledge training session that employees are interested in?

4.2.2.4 Desired Skills

After gamification was used in your organization, could you please rank the top three skills that employees were interested in?

4.2.3 Questions about Motivation

- Do you think that gamification helps motivate the employees in the organization to participate in the training sessions?

- Do you think employees in the organization were willing to attend further training sessions when they were informed that gamification will be used?

4.2.4 Questions about Drawbacks

After gamification was used within your organization, were there any drawbacks that you noticed?

4.3 Interviewees – Users

4.3.1 General Questions

- Could you please introduce yourself?
- What role do you play in the organization?
- How long have you been in this position?

4.3.2 Gamification Questions

4.3.2.1 General Questions

- How long has gamification been used within your organization?
- What were your expectations when gamification was first introduced to you?

- After you experienced gamification, did it meet your expectations?

4.3.2.2 Desired Behaviour

- After gamification was used in your organization, did it help you want to have the behaviour that the organization would like you to have?

- After gamification was used in your organization, did it help you to learn to the behaviour that the organization would like you to have?

4.3.2.3   Desired Knowledge

• After gamification was used in your organization, did it help you to want to learn the new knowledge that the organization would like to introduce to you?

• After gamification was used in your organization, did it help you to learn the new knowledge that the organization would like to introduce to you?

4.3.2.4   Desired Skills

• After gamification was used in your organization, did it help you to want to learn the new skills that the organization would like to introduce to you?

• After gamification was used in your organization, did it help you to learn the new skills that the organization would like to introduce to you?

4.3.3 Questions about Motivation

• Did gamification help motivate you to participate in the training sessions?

• Were you willing to attend further training sessions when you were informed that gamification would be used?

4.3.4 Questions about Drawbacks

After gamification was used within your organization, were there any drawbacks that you noticed?

4.4 Results of the Interviews

After the interview sessions were conducted, many there were some interesting results on the effects of gamification in the leading organization in Thailand on the people who were involved in the gamification activities.

Unlike the results of gamification that being experienced overseas, gamification in the leading organization in Thailand is a motivator for the employees in many aspects which is not limited to only training.

Since the interview sessions were divided into three parts which consisted of the managers, the coordinators, and the users of gamification in the organization, the

findings will be divided into three parts in order to show the different points of view of the different parties concerned.

From the results of the study about gamification, there is one thing that most of the interviewees, except for one, agreed with when talking about gamification. Gamification, or the serious game, was not used in the organization as a work tool, but for training purposes, as the purpose was to motivate the employees in the organization to become more willing to attend the training sessions. This could be considered as the theme of the findings of this study. The in-depth details of the findings will be explained below by classifying the interviewees into different groups.

4.4.1 Managers' Perspective

According to the managers, when the organization introduced and used gamification, in their point of view, it was one of the greatest motivators that the organization ever had in terms of encouraging the employees in the organization. From the interview sessions, the managers saw that the behaviour of the employees in the organization had been encouraged to shape their behaviour according to the organization's trends and directions. For example, when the organization was trying to create healthy behavior, such as climbing the stairs instead of using the elevator, if gamification was used as the motivators, the employees tended to participate in the campaign more than the campaigns which didn't use gamification.

Not only can the desired behaviour be encouraged among the employees by using gamification as the motivator, the desired knowledge is also another aspect of gamification that can help employees to develop in the organization. However, for business purposes, the gamification was used by improving knowledge in the form of quizzes that for which there were rewards when correctly answered, or rewards that were given out when employees attended specific courses as well. For example, when the interviewers were trying to encourage the employees to participate in the training sessions, both in traditional and online classrooms, gamification can also work as the motivator in terms of a rewards system that will help encourage the employees to attend the training.

In addition, gamification, as the motivator, can also work the same way as for desired knowledge when used to acquire the desired skills, but there was one interesting point mentioned by the managers that was included in the interview sessions.

"Although gamification is a good motivator for training, for the employees who do not work in the headquarters, using gamification to motivate them to participate in the training session that focused on the desired skills is still very difficult," one of the managers, (manager #1) briefly explained about the situation that occurred when the organization was trying to use gamification to motivate those employees who work in the branches and not in the headquarters.

When asked for more information, the reason given was the gamification that their organization used was a system of giving rewards as the motivator, and the employees who receive the rewards, which will be in the form of online currency, for example, will have to redeem the physical form of the rewards such as gift vouchers by traveling to the headquarters to receive them.

"If they have no plan to come to the headquarters," said manager #1, "the organization has no policy of delivering the gifts to the employees who work in the branches. Therefore, gamification will have less effect on these employees."

Another reason why gamification is more difficult when used as the motivator for the desired skills for those employees who are working in the branches is that since gamification is still in the beginning stage of being launched, the organization would like to obtain enough results to ensure that gamification can really motivate the employees to participate in the training sessions.

The managers also added that gamification is one of many methods that can be used to encourage the employees in the organization to participate in activities that are designed to develop them. However, even though gamification can work very well and have quite a high impact on the organization, the content of the trainings is the main point that needs to be focused on and it also needs to be well-designed.

"The rewards are one thing," manager #2 said, "but the most important part of the training is still the content. If the content is bad, then even if the rewards are extremely attractive within proper limits, no one will attend that training."

Another point that the findings demonstrate is a drawback of using gamification. From the point of view of the managers, using gamification too much as a motivator for the employees to participate in the activities proposed by the organization can make some of the employees become reward hunters. This will lead to a loss the main focus that could be dangerous to the whole organization in the long run.

At the end of the interviews, one of the managers mentioned a very interesting point about gamification when it is used as the motivator in training.

"I agree that gamification can be a big help for the organization to motivate people to attend the training sessions. But people who love to learn will learn with or without gamification. There is no need to do anything to motivate such people. Therefore, in my opinion, gamification can really help to motivate those employees who do not want to learn and it can help equip them with the desired behaviour, knowledge, and skills that they are expected to have. This is a kind of win-win situation for both the organization and the employees. But, in the end, we have to consider, do people want to participate in the training sessions due to their own interest, or due to the rewards that the organization has promises to pay out for what they are aiming at?"

In conclusion, the benefits and drawbacks of gamification that can be seen from the interview sessions with the managers as below.

- Benefits

1. Gamification can be the motivator to encourage the employees to attend the training sessions.

2. Gamification can help to shape the desired behaviour, the desired knowledge, and the desired skills among the employees in the organizations.

- Drawbacks

1. If the employees are not working in the headquarters, they will be excluded from the gamification.

2. If the gamification is not well-designed, there will be the rewards hunters and that will lead to a loss of the main focus of the gamification.

4.4.2 Coordinators' perspective

According to the coordinators, who help the managers to use gamification in the organization, they have some points of view that differ from those of the managers.

When the coordinators were asked if they thought that by using gamifications in the organization, it would help to motivate the employees to participate in the training sessions or activities proposed by the organization, they agreed, but they did not believe it was a significant amount. However, the reason is not because of the gamification itself,

but it is because of poor communications which may not have reached all of the employees in the organization.

"Communication about this new idea was just via email," said coordinator #1, "and when the email included the word "HR" in their name, it was more likely that the email would be ignored."

Nevertheless, for the other aspects such as developing the desired behaviour, knowledge, and skills, the coordinators had almost the same opinions as the managers, namely, gamification can motivate the employees in terms of shaping the desired behaviour, and encouraging the employees to participate in the training sessions that help enhance the desired knowledge, and skills.

"The number of the employees who attended the training session are increasing," coordinator #1 replied. However, the exact percentage of the increase is not known because the data has not been gathered yet.

Another interesting result is that when asking the coordinators to rank the top three training sessions, knowledge of gamification helped to motivate the employees to participate in the mandatory and basic knowledge of the products, the policy of the organization, and safety in the workplace, which was the most popular course that the employees participated in. This is an interesting point because about the knowledge required to work in the organization, but, somehow, the training involving gamification can encourage employees to participate in the course more readily when there was no gamification.

From the coordinators' experiences, when the gamifications were launched and finished, there were many employees in the organization who work at the headquarters, as well as those who do not work at the headquarters who had not heard of gamification being used at the headquarters, so an email was sent about the use of gamification in the future and the sessions that will use gamification, which they think is a good sign for the success of gamification within their organization.

With respect to the drawbacks of gamification, that the coordinators are concerned about the misunderstanding of the concept due to poor communication with employees in the organization, the possible overspending of the budget if the forecasts and the management are not good enough, and the problem of the rewards hunters, which is similar to the concerns of the managers.

"The amount of the rewards uses the same concept as economics. In the long-run, if the rewards system of gamification is not well-designed with respect to supply and demand, then there will be inflation. If that happens, gamification will not be able to motivate anyone anymore. Also, the reward hunters are another issue which could make it more difficult to motivate employees to participate in the training, because all they are interested in are the rewards" said t coordinator #2.

- Benefits

1. Gamification can be the motivator to encourage the employees to attend the training sessions.

2. Gamification can help shape the desired behaviour, knowledge, and skills among the employees in the organization.

- Drawbacks

1. If the employees misunderstand the concept of gamification, they may have a bad experience which could be demotivating.

2. If gamification is not well-designed, the budget could be overspent.

4.4.3 Users

The last group of the interviewees are the most important group because they are the real users who have gone through the process of gamification so they can explain their real experiences.

According to the users, gamification helped to motivate them to try to have the behaviour that the organization is encouraging them to have. For example, if the organization is trying to encourage them to have healthy behaviour, when gamifications is used in the activities, they will become more likely to participate in the campaign.

"I used to be the person who took take the escalator or the elevator even it was just one floor to go up" user #1 said, "But since gamification was introduced to me in order to encourage employees in the organization to become more healthy by increasing the amount of the walking, I enjoy walking since then."

However, the main reason that they want to participate in the activities is that they want to get the rewards from gamification, not from the activities themselves. From the interviews, even though the interviewees have become healthy after they have

experienced the activities, they do not want to attend the activities related to healthy behaviour if there is no gamification in the proposed activities.

"It is the way to earn some reward" said user #3, "If there is no reward and it is not a mandatory course, I will definitely not participate."

Nevertheless, even though some users attend the training due to the rewards, one of the interesting points that can be identified from the explanations of the users are their points of view.

"Finally! No more Starbuck vouchers!" said user #4, "Now I can design my own reward for participating in the training. Not everyone will drink Starbucks every day, right?"

In terms of the desired knowledge, even though the coordinators confirmed that there was no improvement in the knowledge that the gamification had been used for, the users did not share the same opinion. According to them, the users said that they had not seen any training sessions trying to improve their knowledge by using the advantages of gamification. Thus there is a conflict between the views of the coordinators' and the users. For example, the coordinators confirmed that they had the pop-up quizzes to give out the rewards for the users who participated in the training sessions, while, on the other hand, the users did not think that the quizzes were gamification, because they thought that the quizzes were a type of tests where they had to answer correctly.

Not only the users cannot see the application of gamification to improve their knowledge, or the desired skills in the training sessions, but they don't think it makes any difference anyway.

However, when the users were asked about the motivation effect that the gamification had on them, all of them replied that it was better than nothing, which suggests that gamification helped to motivate the employees in the organization to participate in the training sessions.

"Having the rewards is better than nothing. Even the rewards are sometimes not that attractive, but, at least, there is some point in participating in that training which is good for me because I will never participate in some particular courses if there is no reward, but those particular courses that I usually try to avoid can give me some benefit," said user #5.

- Benefits

1. Gamification can help to shape the desired behaviour, knowledge, and skills, and will also make the participants addicted to them after the training has ended.

2. The rewards can be desired by the users which make them want to participate in the training more than when the rewards are fixed.

- Drawbacks

Some of the users are now rewards hunters.

CHAPTER V
CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The table below summarizes the benefits and drawbacks from the view points of the managers, coordinators, and users.

Table 5.1 Summarizes the benefits and drawbacks from the view points of the managers, coordinators, and users

Benefits	Drawbacks
• Gamification can be the motivator to encourage the employees to attend the training sessions.	• If the employees are not working in the headquarters, they will be excluded from gamification.
• Gamification can help to shape the desired behaviours, desired knowledge, and desired skills among the employees in the organizations.	• If the gamification is not well-designed, there will be rewards hunters that will lead to a loss of the main focus of the application of gamification.
• Gamification can help to shape the desired behaviour, knowledge and skills, and will also make the participants addicted to them after the training has ended.	• If the employees misunderstand the concept of gamification, they can have a bad experience leading to demotivation.
• The rewards can be designed to make the users want to participate in the training more than when the rewards are fixed.	• If gamification is not well-designed, the budget can be overused. • Some of the users have now become the rewards hunters.

In conclusion, according to the first assumption that gamification, or the serious game, will help to motivate the employees in the organization to participate in the training sessions, after the data had been collected from the interviews, gamification is one of the methods that can help motivate and encourage the employees of the organization to participate in the training sessions. However, even though gamification helps to motivate the employees in the organization as mentioned, some of the employees, or the users, seem to participate in the training sessions where gamification is used because of the rewards , not for the training itself.

As a result, the benefit of gamification that should be noted is that it helps to encourage the employees who have no intention to participate in the training sessions to participate in them, even though they participate because their objectives are to get the rewards, but, at least, by participating in the training sessions, these employees will be exposed to the desired behaviourds, knowledge, and skills that the organization are trying to develop among their employees.

Another lesson that can be learnt from this study is that the employees who are eager to acquire new knowledge, or acquire new skills, even without the application of gamification, will gladly participate in the training sessions, and, as a result of their participation, these employees will tend to have a better chance of acquiring new knowledge or the new skills than those employees who participate in the training sessions due to the attractiveness of the rewards.

However, it cannot be denied that for the organization the development and the advancement of its employees in the organization are as important as the business itself, and gamification, or the serious game, if well organized and managed is one of the tools that helps to motivate the employees to go through the training process which shapes the desired behaviour in this digital era.

5.2 Recommendations

According to the above findings and the conclusion, gamification can help considerably as a motivator to encourage the employees in the organization to participate in the training sessions. This concept can be one of the tools that the human resources department in the organization might consider if they are faced with the problem of

low participation in the training of the employees, which could be a sign of future problems such as slow development in terms of desired behaviour, knowledge, and skills. However, if organizations reach an agreement of the use of gamification, the project owners will have to work hard on the studies of the cases that can be found in organizations that already using the concept of the gamification in Thailand in order to see the real applications, benefits, and drawbacks.

The most important recommendation that can be drawn from the study above is that gamification needs to be well-designed. If the rewards offered are too attractive, it can lead to the problem of employees only being willing to participate in the training for the rewards, not for the training itself, which is not the purpose of using gamification while if the rewards are too small, only a few people will participate in the training sessions, which could lead to the failure of using gamification as well as wasting the resources of the organization.

Lastly, gamification, or the serious game, is one of the concepts that matches Thai culture which is a fun culture. Thai people love activities that they can share and enjoy with their friends. Thus, gamification responds to the needs of Thai people. However, even if it seems perfect, the organizations that are planning to use this concept should be large organizations, not the small ones, due to the requirements for very large budget to invest and the manpower to develop the system, as well as the rewards needed to be able to attract the employees. Otherwise, there is a risk that gamification could lead to a serious failure.

5.3 Limitations

The limitations of this study are that it focuses on gamification for business purposes only, and also only on the employees in long established organizations. Therefore, this study did not include employees who work in start-ups, or work as labourers.

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