

CHAPTER IV. DATA ANALYSIS AND DISCUSSION

After engaging in survey and interview, this chapter will analyze and discuss data which are gained from the two methods. Due to the first step is survey, this part will analyze questionnaires at first. Then, the interview will be discussed.

Discussion and Analysis of Survey

Survey is the first step to find out the influential factors which are regarded as having influences on trainee satisfaction of WBT by significant samples. The total number of companies from random sampling to participate in survey is 60. There are eighteen companies replied the questionnaire. The rate of replying is 30%. After using descriptive statistics which are frequency and percentage to analyze, the outcome is as table 4.1.

Table 4.1 *Outcome of Analyzing Questionnaires*

Category of Factors	Items	Managers		Employees	
		N	Percentage	N	Percentage
1. Characteristics of trainees	1.1 Experiences of computers	15	83.33	12	66.67
	1.2 The frequency for using internet	11	61.11	8	44.44
	1.3 Experiences of participating discussion board	2	11.11	2	11.11
	1.4 Different character of jobs	12	66.67	12	66.67
	1.5 Educational or salary's level	4	22.22	3	16.67
	1.6 How many online courses that learners take	5	27.78	6	33.33
2. Instructors	2.1 Interactions between students and instructors	10	55.56	11	61.11
	2.2 Receiving timely comments from instructors	7	38.89	11	61.11
	2.3 The speed to reply questions which are posted	8	44.44	10	55.56
	2.4 The instructor in terms of his devotion to the course	8	44.44	6	33.33
	2.5 The teaching style of instructor	11	61.11	8	44.44
3. Instructions	3.1 Difficulty to learn conceptual material from lectures	11	61.11	12	66.67
	3.2 Interactions between students and instruction	15	83.33	13	72.22
	3.3 Collaborative interaction of activities in class	6	33.33	5	27.78
4. Technology	4.1 The quality of technological tools	16	88.89	13	72.22
	4.2 The speed to link internet	18	100.00	15	83.33

Table 4.1(Continued) *Outcome of Analyzing Questionnaires*

Category of factors	Items	Managers		Employees	
		N	Percentage	N	Percentage
5. Design of system	5.1 The variety of methods to evaluate how learners studied	17	94.44	17	94.44
	5.2 The discussion board which included in system or not	7	38.89	5	27.78
	5.3 Access the online web-links to important sites	1	5.56	5	27.78
6. Characteristics of online environment	6.1 Choose any place to study	17	94.44	15	83.33
	6.2 Flexible to study by following their own plans	11	61.11	11	61.11
	6.3 Learn in their leisure time	17	94.44	13	72.22

From this table, the researcher discusses about the results by categorizing them into three parts which are managers' viewpoints, employees' viewpoints, and comparison.

Managers' viewpoints

From table 4.1, we can find there are four factors which regarded as having influences on trainee satisfaction of WBT by over 90% managers and their percentages of being regarded as influential factors are also ranked from the first to the third highest. The four factors are the speed to link internet, the variety of methods to evaluate how learners studied, choose any place to study, and learn in their leisure time. Among these factors, there are 100% managers think that the speed to link internet has influences on satisfaction of WBT. And the other three factors are agreed

with 94% managers. As for factors which are regarded as influential factors by the least managers, there are only 5.56% managers think that access the online web-links to important sites can affect trainee satisfaction on WBT.

Employees' viewpoints

From table 4.1, the researcher finds that there is no factor which thought has influences on trainee satisfaction of WBT by 100% of employees. There is only one factor be regarded as influential factor by over 90% employees. The rank of factors from the first to third high percentage is the variety of methods to evaluate how learners studied, the speed to link internet, and choose any place to study. There is 94.44% employees regard the variety of methods to evaluate as an influential factor. And, how learners studied and the speed to link internet are both identified by 83.33% employees. As for factors which are regarded as influential factors by the least employees, there are 11.11% employees think that experiences of participating discussion board can affect trainee satisfaction on WBT.

Comparison on managers and employees' viewpoints

After analyzing managers and employees' viewpoints separately, we can find that there are some similarities and differences between their thoughts.

1. Similarity

In the part of factors which are regarded as influential factors and are ranked from the first to the third high percentage of managers and employees' viewpoints, we can find that no matter considering from managers or employees, the speed to link internet, the variety of methods to evaluate how learners studied, and choose any place to study are all identified as influential factors by higher percentage of samples. The positions of ranks are different, but they are all ranked from the first to the third in managers and employees' viewpoints. Although in employees' viewpoints, learn in their leisure time is not included in the rank from the first to the third high percentage,

it is ranked as the fourth one and its percentage that employees agree with its influences is over 72.22%. More than half of employees think it has influences. So, in this part, managers and employees' viewpoints about the four factors are similar.

As for factors which are regarded as influential one by the lowest percentage of samples, only 5.56% managers think that access the online web-links to important sites has influences on trainee satisfaction. Although it is not the lowest percentage one in the employees' viewpoints, it is only regarded as having influences by 27.78% employees. Besides, the lowest one in employees' viewpoints is experiences of participating discussion board. It is regarded as influential factor by 11.11% employees and also regarded by 11.11% managers. Although it is not the lowest one in managers' viewpoints, it is still only regarded by few managers which is not over 50% and ranked as the second lowest one.

Besides, there are four factors which be regarded as influential factors by the same percentage of managers and employees. These factors are experiences of participating discussion board, different character of jobs, the variety of methods to evaluate how learners studied, and flexible to study by following their own plans. Among the four factors, only one factor which is experiences of participating discussion board is not identified over 50% both of managers and employees.

2.Difference

When comparing the results between managers and employees' viewpoints, the researcher finds four obvious differences. In managers' viewpoints, the frequency for using internet and the teaching style of instructor are both regarded as influential factors by over 50% of managers (61.11%). But in employees' viewpoints, the percentage of them to identify the two factors is not over 50%. And in employees' viewpoints, receiving timely comments from instructors and the speed to reply questions which are posted are both regarded as influential factors by over 50% of

them. But in managers' viewpoints, there are only 38.89% and 44.44% of managers to identify the two factors separately. The four factors show the more obvious differences between managers and employees' viewpoints.

From the stage of survey to interview

The purpose of survey is to find out influential factors which are regarded by significant samples. After comparing the similarities and differences between managers and employees' viewpoints, the researcher chooses four factors from similarity part to engage in interview to gain more information about their influences and the way to fulfill them. These factors are ranked as the first to the third high percentage in managers and employees' viewpoints separately. Their percentage are all over 70% and which are the speed to link internet, the variety of methods to evaluate how learners studied, choose any place to study, and learn in their leisure time. As for the part of differences, the researcher also chooses four factors which are the frequency for using internet, the teaching style of instructor, receiving timely comments from instructors, and the speed to reply questions which are posted to understand how these factors affect trainee satisfaction and know what differences between managers and employees' thoughts on the four factors are. Table4.2 shows influential factors which are used to develop questions for engaging in interview.

Table 4.2 *Influential factors used in interview*

Comparison	Item
Similarity	<ol style="list-style-type: none"> 1. The speed to link internet 2. The variety of methods to evaluate how learners studied 3. Choose any place to study 4. Learn in their leisure time
Difference	<ol style="list-style-type: none"> 1. The frequency for using internet 2. The teaching style of instructor 3. Receiving timely comments from instructors 4. The speed to reply questions which are posted

Analysis and Discussion of Interview

The number of companies that participate in interview is five. Five interviewees are managers of HR and training department and another five interviewees are employees who ever received WBT. All of interview questions are as Appendix C. The following will introduce backgrounds of the five companies.

Introduction of Participative companies

1.A company

A company was established in February, 1997. It manufactures Plastic Ball Grid Array (PBGA) IC substrate. It has the world's No.1 professional full process workshop for PBGA IC substrate in the Science Based Industrial Park. Its technology and management teams are made up by elites from industries including semiconductor, IC package, printed electronic circuit board and both government /non- government academic units in Taiwan. There are 2800 employees in this company and its capital is about six billion dollars. Besides, its turnover volume was up to 13 billion dollars.

WBT in this company has already been implemented for 1.5 years. The department which is responsible for it is training and development department.

2.B company

B company was established in February 1988 by a small group of young engineers. They are engaged in the design of Token-Ring and Ethernet products. After that, it becomes a global OEM/ODM leader in advanced networking and communication equipments. Besides, it was publicly listed in Taiwan in November 1995. It's headquarter is in Hsinchu, Taiwan. It has more than 2500 employees. The successful businesses that it engages are NIC, Switch, Wireless LAN and broadband market. And its capital is about 5.8 billion dollars.

WBT in this company has already been implemented for 4 years. The department which is responsible for it is HR department.

3.C company

C company was established in 1977. Its services include leasing, installment, factoring, corporate direct loan, and off-shore financing. It has the leading role in the leasing industry. The total capital achieved to 8.2 billion and its net income achieved to 1.1 billion in 2005. Now, it has about 800 employees in the company. The scale of enterprise is still enlarged.

WBT in this company has already been implemented for 1.5 years. The department which is responsible for it is training and education center of this enterprise.

4.D company

D company was established in 1988. This enterprise engages in chain convenient store. It has 850 branch stores in Taiwan now. Its goal is to become convenient store which has the highest customer satisfaction. Its capital is 0.5 billion dollars and it has 1900 employees in the company. This company always pursues the

growth in the stable condition. Besides, in order to make customers more satisfied, it improves the image of stores continuously and lowers the costs to achieve its enterprise's goal.

WBT in this company has already been implemented for 2.5 years. The department which is responsible for it is training department.

5.E company

This company is under a group which was established in 1947. This group's business is focusing on trade and vehicles. E company's main business is vehicle and which is also the agent of Mitsubishi's vehicles in Taiwan. Its main business areas include sales of Mitsubishi and China Motors Corporation's passenger and recreational vehicles, as well as provide after-sales parts and service. Its capital is 0.19 billion dollars and it has about 1300 employees in company.

WBT in this company has already been implemented for 0.6 years. The department which is responsible for it is operation and training department.

Introduction of Interviewees

Interviewees in each company which are one managers of HR or training development who be responsible for WBT and one employee who ever received WBT in the company. All of their profiles are presented in table 4.3 and table 4.4.

Table 4.3 Profiles of interviewees who are managers

Company	Department of Manager	Time that participate in WBT	Main responsibility
A company	Training and development department	1.5 years	Planning the system and promote the instructions
B company	HR department	1 year	Implementing and promoting
C company	Training and education center	0.5 year	Being a instructor, planning and implementing
D company	Training department	2.5 year	Planning and promoting
E company	Operation and training department	0.6 year	Implementing and promoting

Table 4.4 Profiles of interviewees who are employees

Company	Job Position	Time for receiving WBT
A company	Secondary management specialist	8 hours above
B company	Research and develop engineer	24-36 hours
C company	Training specialist	6 hours above
D company	Secondary-general	8 hours above
E company	Clerk	3 hours above

Coding of transcript

After recording the interview, the transcripts are done which based on these recorders for analyzing data. In order to analyzing and discussing, all of these data from interview are categorized into twelve categories and each category is separated into several items. The following is table 4.5 which shows the coding of interviews' transcript.

Table 4.5 *Coding of interviews' transcript*

Category	Item
1. The speed to link Internet	1.1 Influences 1.2 The way to solve or fulfill this
2. The variety of methods to evaluate how you studied	2.1 Influences 2.2 The way to solve or fulfill this
3. Choose any place to study	3.1 Influences 3.2 The way to solve or fulfill this
4. Learn in your leisure time	4.1 Influences 4.2 The way to solve or fulfill this
5. The frequency for using Internet	5.1 Influences 5.2 The way to solve or fulfill this
6. Receiving timely comments from instructors	6.1 Influences 6.2 The way to solve or fulfill this
7. The speed to reply questions which are posted	7.1 Influences 7.2 The way to solve or fulfill this
8. The teaching style of instructors	8.1 Influences 8.2 The way to solve or fulfill this
9. Other influential factors	9.1 Other influential factors 9.2 The way to solve or fulfill this
10. Methods to increase trainee satisfaction	10.1 Methods to increase trainee satisfaction 10.2 Matters needing attention
11. Companies' development of WBT in future	11.1 Development of future 11.2 Reasons
12. Suggestions	12.1 Employees' suggestions to WBT 12.2 Managers' suggestions to other companies

Analysis and discussion

The discussion of interview is divided into several parts which based on the coding of transcripts. The purpose of interview is to understand influences of influential factors which from results of survey more deeply and find out the differences between managers and employees' viewpoints. Besides, knowing how to increase trainee satisfaction of WBT is also very important. The following will discuss about each influential factor one by one.

- Influential factors

- 1. The speed to link internet*

- (1) Influences

In managers' viewpoints, if the speed to link internet is fast, employees use WBT would be more smoothly. Sometimes, the speed to link internet inside of companies is very fast, but, the problem is when employees go to websites to study at home, their bandwidth is not as wide as company. This would make the speed become slower. So, if they want to download some materials at home, it would take a lot of time. This makes them become impatient. Besides, if trainees read something which often has lags, they would feel agonized. And this would have influences on trainee satisfaction. On the contrary, when the speed to link internet or download is fast and smooth, the trainees would feel comfortable while reading materials and studying on webs.

In employees' viewpoints, no matter the speed to link internet or download materials, when it takes a lot of time, they would feel impatient. Because when they want to study immediately, they have to wait a period of long time at first. This decreases trainee satisfaction and their willing to study. Besides, when the quality and speed of internet is not good enough, the voice

and image of instructors would have lags. Employees think this has influences on the quality of information that trainees received and this makes them can't concentrated on the training.

After understanding how the speed to link internet affect trainee satisfaction on WBT, the researcher finds that the viewpoints of managers and employees are the same. They all think that if the speed to link internet is slow, it would make trainees become impatient and decrease their satisfaction. Besides, employees also indicate that this would affect their willing to study and the quality of information that they received from webs.

(2) The way to solve or fulfill this factor

In order to solve such a problem, although some scholars think that if companies use broadband network can solve this situation because the speed of which is 25 times fast than before (Kevin, 2001), managers think that it can't solve this problem completely. Managers think that if standing on trainees' points, all of them hope the speed should be as fast as possible. But, if standing on companies' points, the speed that an enterprise can afford on is according to the cost and expenses. So, managers think that for the company, it may choose the bandwidth and speed of internet which are appropriate, not the best one that trainees want. And based on each company's condition, owing to it's impossible to enlarge the bandwidth without limitation; ways to fulfill this factor can be divided into three kinds roughly. One is to make some materials become a package of files. And if the file is too big, cutting it into small units is necessary. This can decrease the time to download. The other one is to avoid using a large number of videos or animations which would occupy a lot of spaces on internet. And another one is dividing trainees

into different time and day to use WBT.

2. The variety of methods to evaluate how you studied

(1) Influences

In managers' viewpoints, they think that this has influences on trainee satisfaction of WBT. Most employees don't like to have a test. If test is not included in methods to evaluate how they studied, they would be much happier. But most of time, employees all hope that evaluation of how they studied exists. When companies can give them some feedbacks such as show them their grades, mistakes, and correct answers after the test, they would feel more satisfied. Besides, companies can't give them too much pressures or limitation on the test. If they can have the test again and again to achieve the goals or grades, they would more relax and satisfied. Besides, companies have to combine questionnaires, tests, or some other material evaluation such as performance of jobs or machine operation. All of these have influences on trainee satisfaction.

In employees' viewpoints, they think that when the method to evaluate how they studied is using a single way, they would feel that it is changeless and no one to care about them. For example, if only using the questionnaire on webs to evaluate their study, they would think that this evaluation is paltered. When encountering this situation, it would affect trainee satisfaction. Before this research, many studies also found that many companies just use questionnaires or judgment from supervisors to evaluate trainees' studying. This not only decrease trainee satisfaction but also lacks of objectivity (Lin, 2003; Thurmond & Connors, 2002; Simonson, 2002). Besides, they are satisfied with methods to evaluate their study in their companies. Because these methods are various which include tests, questionnaires, trainees'

opinions.....etc. By this way, companies and employees can give feedbacks to each other.

Although in managers and employees' viewpoints, all of them think that trainees don't like tests, they all hope the evaluation can exist. If there can be more methods to evaluate how trainee studied, they would not feel so dull. And all of trainees are satisfied with the variety of evaluating methods in their companies.

(2) The way to solve or fulfill this factor

The methods to evaluate how trainees studied are various. Some companies combine tests and questionnaires. And some companies combine tests and KPI to monitor their studying. Besides, one company makes a comparison between different departments to improve each department's frequencies and time on receiving WBT. It also gives each trainee tests in the end of each training curriculum.

3. Choose any place to study

(1) Influences

Some of companies don't allow employees use WBT at home owing to the problem of information security. So, in managers' viewpoints, they think that this causes the inconvenience to employees. Because they can only study at their work time or scarify their break time in the company. Besides, each employee has different habits of learning. Some of them can't study in the company with concentration. Although it's difficult to make every trainee satisfied, when they have more freedom to choose study at home or in the company, their trainee satisfaction would be increased.

In employees' viewpoints, they think that the characteristic of WBT which is learning in any place is very convenient for them. In one employee's

experience, when he was new to the company, he wanted to study at home. But after he linked to the internet, he found he can't use the WBT system. This made him feel unsatisfied and upset. Because he thinks that since it uses web to engage in training, it shouldn't limit the place to receive this training. Although other interviewees may not have such kind of experiences, all of them think that when they can learn by using web in any place, their trainee satisfaction will become much higher.

In managers and employees' viewpoints, they all feel that when trainees can only receive WBT in the companies is violating the spirit and characteristic of WBT. If trainees can learn by web in any place, their trainee satisfaction will be increased. But owing to consideration for the problem of information security in every company, although some employees and managers hope they can improve this part, they compromise the situation in presents.

(2) The ways to solve or fulfill this factor

In this part, companies that participate in the interview use different method to fulfill this factor. Two of them open the system of WBT to let employees can learn in any place. And owing to the problem of information security, two companies set several footholds of learning in each area to let trainees can choose one place which is closer to them to participate WBT and not limited them to study in the company. Besides, there is one company overcomes this problem by giving salesman personal notebooks and install Virtual Private Internet to let them get inside of WBT system by another firewall. Although the ways that companies adopt are different, their purpose which is increasing the convenience of receiving WBT is the same.

4. Learn in your leisure time

(1) Influences

In managers' viewpoints, they think that when the company doesn't limit employees about the time to receive WBT, no matter the supervisors or employees, they all have positive feeling about WBT and higher trainee satisfaction. Because each employee's learning habits and living habits are different. Some people would feel sleepy after lunch but some people like to learn in the afternoon. Besides, the supervisors also feel that WBT is very convenient. Before implementing WBT, trainees needed to stay in the classroom all day long. It was difficult for supervisors to call or ask them to do something about work. But now, if there is anything in emergency, trainees can stop learning on webs to engage in their jobs. So, if employees can learn in their leisure time and any time, their trainee satisfaction would be increased.

In employees' viewpoints, they think that the convenience of learning at any time makes their trainee satisfaction become much higher. That's because this meets their needs. They can learn in their leisure time at company or after work in their homes. They don't have to cooperate to instructors or other trainees' time and schedule. They can study at any time they like. They think that everyone's time for work and rest is very different. Learning at night is appropriate to some people, but not to all the people. This factor not only affects their trainee satisfaction, but also their willing to receive this training. Besides, some of employees think that the impact of this factor is much stronger than the characteristic of learning in any place.

In this part, managers and employees' viewpoints are consistent with each other. They all feel that when trainees can learn at any time and in their

leisure time, their trainee satisfaction would be increased. Because that every trainee has different work and rest time. The time which is appropriate to study for each trainee is differing from each other.

(2) The way to solve or fulfill this factor

All of companies which participate in this interview all adopt the way which is opening this system of WBT by 24 hours all day long. Although in some companies, employees can only receive WBT inside of companies, they still can go to the websites to study by 24 hours. But if they want to use it after work, what they can do is apply for overtime to stay in the company until finish receiving what they want and have to learn.

5. The frequency for using internet

(1) Influences

In managers' viewpoints, they think that if trainee who doesn't use internet frequently, he or she would be unfamiliar with the system of WBT. It would become a frustration to the trainee. If the trainee uses internet very often, he or she wouldn't reject to use this kind of training. That's because this trainee wouldn't feel afraid or meet many difficulties on operating this system. On the contrary, if trainees are not familiar with internet, when they link to the webs and find they don't know how to start, open a file, or link to other pages, they would reject to use this system for the second time. When they encounter too many difficulties and problems to operate this system, they would have less willing to participate in this training. Besides, they would start to dislike this kind of training. And, their trainee satisfaction is decreased.

In employees' viewpoints, they think that this factor has influences on trainee satisfaction on WBT. They think that if trainees don't use internet

frequently, they couldn't operate this system smoothly at the first time. This makes them don't like this kind of training. But, some of them think that the frequency for using internet doesn't have as many influences as other factors. When this factor is compared to other factors which are researched in the interview, its importance would become smaller. Because they think that although trainees are unfamiliar with internet would have difficulties on operating the system and this would let them become less satisfied with this training, if the system has a friendly design or the course meets their needs, they would still satisfied with this training.

In managers and employees' viewpoints, they all think that the frequency for using internet has influences on trainee satisfaction of WBT. But, some of employees think that the importance and influences of this factor are not as much and strong as other factors when make a comparison between other influential factors in this research's interview. This shows the difference between managers and employees' viewpoints.

(2) The way to solve or fulfill this factor

In order to solve the problems that the trainee who doesn't use internet frequently may have, managers offer some ways that they use to overcome such a situation. In the initial stage of implementing WBT, some companies open this system to a small group of trainee at first. The purpose of this step is to let them adapted to this kind of training. After this, the next step is to popularize WBT to large group. In this period of time, holding a meeting to advertise and sending e-mails to teach them how to operate is also necessary. Besides, some companies create a manual to teach trainees all the steps that how to use the WBT system. If they still have problems in receiving WBT, they can contact with the one who is responsible for WBT to solve problems.

All of these ways can make trainees to familiar with the system more easily and increase their satisfaction.

6.Receiving timely comments from instructors

(1) influences

In managers' viewpoints, they think that when trainees are concentrated in the training or having some reactions after receiving this class, they would hope that the instructor can give them some praise or comments. If the instructor doesn't give them any feedback, trainees would feel very disappointed. Trainee satisfaction will be decreased. Besides, if instructors can help them immediately, trainee satisfaction will also become much higher. But, if the instruction lacks of interactivity, asking instructor to have some timely comments or feedbacks is difficult.

In employees' viewpoints, they think that if training is held in the classroom, it's much easier to get timely feedbacks, comments, praise. But, WBT that their companies design is not as convenient as classroom training. Before this, there are many researches found that no matter it is WBT or the classroom training, it has different advantages and weakness. So, companies should blend different kinds of training methods to present different contents of training. This can make WBT and the classroom training to absorb advantages from each other and make trainings become more effective (Kaye, 2003). They can't get timely comments from WBT. This has influences on their trainee satisfaction. Owing to such a situation, companies give them many channels to ask questions and find out the solutions such as e-mail, forum, and discussion board.

In managers and employees' viewpoints, if instructor can give timely comments or praise, trainee satisfaction would be much higher. Lacks of

interactivity of instruction makes WBT can't give timely comments and feedbacks to trainees. Trainees also hope that they can get immediate help when they encounter some obstacle and they also need comments or praise when they engage in the instruction of training.

(2) The way to solve or fulfill this factor

In order to increase trainee satisfaction on this factor, companies increase to use flash for making instructions have more interactivity. Some of companies also give trainees instructors' telephone numbers and e-mail addresses. Besides, establishing forums and discussion board to let trainees post their questions about the instruction and discuss about everything in the training are other ways to solve this problem. Instructors can also give feedbacks to trainees by using these ways.

7.The speed to reply questions which are posted

(1) Influences

In managers' viewpoints, different companies have different channels to let trainees ask questions. Some companies use telephone and e-mail. Because they think that most of trainees don't ask questions about the instruction or course. The problem that they often have is how to operate this system or they can't get inside of this training. At this time, they can call the one who is responsible for WBT. This can solve problems immediately. When companies can solve trainees' questions as soon as possible, the trainee satisfaction will be increased. Although, managers think that this factor has influences on trainee satisfaction, it is difficult to let trainees get answers of questions in a short period of time. So, what they can do is telling trainees the rule about asking and answering questions to decrease their anxiety. Besides, they think that few trainees use forum or discussion board. So, using e-mail

or telephone is appropriate and enough.

In employees' viewpoints, they think that the speed to reply questions which posted has influences on their trainee satisfaction. When the speed of replying is very quickly, they would feel much more satisfied and think that companies care about them. Besides, they think that asking questions by e-mail takes a lot of time and it is not very convenient. Sometimes, the instructor can't give them answers immediately, but at least they can discuss questions with other trainees. They also think that when company lets trainees contact the instructor by telephone or someone who is responsible for WBT directly, they would feel more satisfied.

In managers and employees' viewpoints, they have the same feeling about this factor. The speed to reply questions which posted has influences on trainee satisfaction on WBT. But managers think that using e-mail is also very convenient. This differs to employees' feeling. Employees think that using e-mail always takes a lot of time and have to wait for the reply. If they have to wait for too many days, their trainee satisfaction would be decreased.

(2) The way to solve or fulfill this factor

In order to make trainees can get answers of their questions as soon as possible; many companies have persons to be responsible for questions which posted on discussion board. When they find there are some questions which has waited for instructors' answers for a period of long time, they will inform instructors to solve problems as quickly as possible. Besides, when they find trainees post the questions, they will tell trainees the dealing of answering to let trainees feel comfortable. And some companies hold conference after a course to understand what are trainees' problems and questions. In addition to these ways, some companies think that combine

different channels such as telephone contact, e-mail, discussion...etc. to let trainees offer and ask their questions is also the way to decrease the time that replying questions may take.

8. The teaching style of instructors

(1) Influences

In managers' viewpoints, they think that this factor has the most direct influences on trainee satisfaction of WBT. When the instructor only teaches trainees by reading the materials or Power Point, trainees would think that this course is very boring. Mostly, when the company doesn't use synchronous training, the instructor can't see or know trainees' reaction or facial expression. So, the instructor may ignore the style of his teaching. This makes instructor just read the material without using more activities or increasing the interactivity. This situation would cause many critics and complaints from trainees. Besides, a good instructor needs to know how to use questions and some scenes to lead trainees into the core of knowledge or skill. This would increase trainee satisfaction.

In employees' viewpoints, when their companies use flash to engage in WBT, trainees think that this factor has less influences. Because trainees are attracted by the animation and they would think the training is interesting no matter how this program is taught. But, in other companies, employees think that if the instructor only read materials on webs, they would think this course is very boring and would be asleep. The trainee satisfaction would become lower. Besides, if instructors can increase using multi-media, flash, and stories to teach, trainees would have more positive satisfaction.

In managers and employees' viewpoints, the impact of this factor is obvious. They all think that if the instructor only read the materials during

the class, they will become bored. If the instructor knows how to use stories, scenes, and activities to lead trainees understand the knowledge, they would have higher satisfaction. Besides, flash and multi-media can also draw their attention on this training. When a company which adopts flash to design an instruction, employees would think that influences of instructors' teaching style will be lessened.

(2) The way to solve or fulfill this factor

In order to fulfill this factor, managers think that using flash can make a training instruction become more interesting. Besides, owing to it's difficult to ask all the instructors has the same ability and enough experiences to make Power point and teach, some companies take place some activity such as voted by trainees to choose the most satisfying instruction, the most humorous instructor, the best content that the instructor designed...etc. in every year to encourage instructors. In addition to this, the company also holds some trainings to teach the internal instructors that how to teach trainees and make Power point.

From the interview, the researcher finds that on the eight influential factors, managers and employees all think that these factors have influences on trainee satisfaction of WBT. The difference between their viewpoints is that employees think that the impact of the frequency for using internet is not as many as others. Because they think that if this system of WBT has friendly design, it can solve many problems that the trainee who doesn't use internet so often may encounter. So, the influence is not very strong but still has. In addition to this, although managers and employees have the same viewpoints on the factor which is the speed to reply questions which are posted, managers think that using e-mail is a convenient and appropriate way to

let trainees ask questions and on the contrary, employees think that it takes a lot of time to wait for instructors' reply. Trainees think that telephone contact and discussion board is more convenient. And as for the factor which is the teaching style of instructor, employees think that when their companies use flash to create instructions of training, this factor would have less influences on trainee satisfaction of WBT. No matter how this flash passes the knowledge, trainees would be attracted. Because people always pay more attention and like something which can draw their senses of sight. These are some differences between managers and employees' viewpoints on the eight influential factors which from results of survey.

- Other influential factors from interviews

In interviews, managers and employees also offer viewpoints about some other influential factors of WBT which are not included in the results of survey in this research, these factors and ways to fulfill them are discussed in this part.

1. Other influential factors

(1) Design of content

Managers and employees all think that design of content has many influences on trainee satisfaction. The content of instructions has to meet trainees' needs and characteristics of their jobs. Besides, the length of each instruction can't be too long. If this instruction needs to be spent a lot of time on receiving it, the trainee won't have the willing to read it from beginning to the end. This also has influences on trainee satisfaction. In addition to these, employees also think that if there are some special designs during the instruction such as a cute cartoon figure to wake them up, this can gather their attention up to the class again.

(2) Friendly design of the system

If the design of WBT system let trainees feel that it is friendly to

operate, trainee satisfaction will become much higher. In many companies, when employees want to get inside of WBT, they have to log in at first. At that time, if some employees forget their passwords or account name, they will not have the willing to learn by web. This also decreases trainee satisfaction. Besides, the friendly design also includes if it is artistic and beautiful or not. If it is looked nice and comfortable, the trainee satisfaction will become higher. These are how this factor has influences on trainee satisfaction of WBT.

(3) Quality of multi-media

When there are some videos and some voice files on webs, sometimes, trainees feel that the quality is not good enough. They can't listen to the instruction very clearly and the picture of videos is very blur-eyed. This will let them don't want to study to the end of the whole instruction especially when the voice of instructors in videos becomes loud or small suddenly because they have to adjust the volume frequently. This is why trainees think this is also an influential factor.

(4) Inducement

Managers think that when the company holds some activities or gives trainees some prizes to attract employees to participate in WBT, their trainee satisfaction would be increased. Because people all like rewards especially when they think they make some efforts.

(5) Supports from supervisors

Managers think that supports from supervisors are also very important. Because if supervisors don't support for WBT, employees will think that since their supervisors don't like WBT, they don't have the willing to receive it and they don't like such kind of training. This also have influences on

trainee satisfaction.

(6) Instructors' professional ability

Sometime, the instructor that the company invites to teach trainees is not a professional expert. And this instructor doesn't have any professional ability to create or design instructions of WBT. When trainees read the introduction of this instructor and find the instructor teaches them without having related knowledge or experiences, they will doubt about him or she. Then, this factor has influences on trainee satisfaction.

2.The way to fulfill these factors

(1) Design of content

In order to design a good instruction, companies will choose some programs to switch them to WBT. After this, discussing with experts and scholars is necessary. Then, start to make the content. All of contents include chapters, outlines, and questions. Each part needs to be examined by experts. Besides, after class, trainees have to fill in the questionnaire to give some suggestions. Then, the company will revise and improve the instruction based on trainees' suggestions. This is the way to ensure the quality of instructional content and design.

(2) Friendly design of the system

Many companies bought the system and platform of WBT from suppliers. For these managers which participate in interviews of this research, they think that it's difficult to them to fulfill this factor because they don't have rights to choose the system or platform of WBT that their companies use now. These decisions are controlled by higher level of supervisors. What they can do is to ask suppliers to make some small adjustments. But this can't solve all the problems.

(3) Quality of multi-media

What managers do to overcome this factor is that seeking for professionals to record videos and voices. Instructors needed to record their voices and use web-cam to catch their images before. So, the quality of pictures or voices was not good enough. This decreased trainee satisfaction. In order to let trainees can use a higher quality of multi-media, some companies hire professional cameraman to record videos of instruction. Although this costs more expense, they think if this can facilitate employees' study and bring more effectiveness to companies; it is worthy to do this.

(4) Inducement

Managers think that some inducement to fulfill trainee satisfaction is necessary. But this kind of inducement is not promotion or increase of salary. Managers think that some activities such as answer a riddle, request answers by providing prizes...etc can let them think WBT is very interesting. This also facilitates the promotion of WBT. Besides, if someone who is the first to receive training on webs or who spends the maximum time on receiving WBT, the company can give this person gift tokens. There are some ways to give trainees inducement and increase trainee satisfaction.

(5) Supports from supervisors

Managers think that when there are some changes in the company, there are must some people to against. If these new things or system can't get supports from supervisors, it's difficult to persuade employees to accept it. When there are some supervisors don't support WBT, managers will go to talk with supervisors to let them know that this is what company decides and rules. Everyone needs to receive such kind of training. Besides, managers will try to know the reasons why supervisors don't give supports. Then, the

next step is to improve related regulations by their opinions. For example, the biggest problem that supervisors can't give supports is that they think employees spend their work time on WBT. This makes them can't do job very well. On this point, in order to let sales can learn at home without wasting their time in company or on work, the company changes the regulation to let them apply for a personal Notebook to learn at any place even outside of the company. By this way, it solves this problem and gains more supervisors' identification.

(6) Instructors' professional ability

It's difficult to ask every instructor has the same level of ability and professional knowledge. But if the company wants to fulfill this factor and lower the costs, managers think it can find some instructors from internal. What managers do to fulfill it is finding some instructors who have the potential to make better instruction. And these instructors have some related knowledge or experiences to teach the course. Then, ask them receive some professional trainings to know how to teach in the environment of web and how to make good instructions. By this way, it not only meets with the effectiveness of costs but also increase instructors' professional ability and trainee satisfaction.

In addition to influential factors of questionnaires and interview's in this research, there are still some factors that managers and employees think have influences on trainee satisfaction. These factors are design of content, friendly design of the system, quality of multi-media, inducement, supports from supervisors, and instructors' professional ability. Although it is difficult to fulfill every trainee's satisfaction of WBT, managers all try what they can do to make WBT can be

implemented for a long time not only exists in this moment.

- Methods to increase trainee satisfaction on WBT

1. Methods to increase trainee satisfaction

(1) Increase promotions

If companies can hold some activities to promote WBT, trainees will have more interests to receive it. Besides, if promoting with activities which are related to learn on webs, trainees can become like it more and more used to learning on webs. Indirectly, this increases trainee satisfaction.

(2) Combine training programs with job position

The training programs that trainees have to receive depend on their jobs. They don't have to choose all of the instructions, what they have to do is receiving those which can facilitate them to do jobs well. When these trainings meet trainees' needs, their trainee satisfaction increased naturally.

(3) Improve WBT constantly

If the company hopes WBT can be very successful, keeping on improving it is very important. Because when the company has plans and follow it step by step to improve the system of WBT and make it better, trainees will know that the company is serious and has the determination on implementing and developing WBT. Besides, owing to this system is improved constantly; trainee satisfaction will be increased gradually.

(4) Increase the function of WBT system

Some employees hope that WBT is not only one kind of trainings; the system should have more functions. They complain that although they can receive knowledge or skills from WBT, sometimes they would forget what they ever learned. When they have to use knowledge that they forget, they can't check and find related information immediately. They have to go to the

class from the beginning again. That's very inconvenient for them. So, they think that the way to increase their trainee satisfaction is increasing the function which is letting them can link to different parts of instructions and find what information they need when in emergency.

2. *Matters needing attention*

Managers think that although trainee satisfaction is very important, when companies want to increase trainee satisfaction, they still have to make plans at first. Then, follow these steps to engage in every stage. Because if the company only puts everything on webs and ask trainees to receive training, the content will be very brief. This will decrease trainee satisfaction and waste the expense. If there is no plan and no goals, it is difficult to have a successful system of WBT. Besides, contents of instructions and teaching style are both needed to be noticed. When choose software to create and make materials or an instruction, the most important thing that needs to be taken into consideration is function. Only when the software has string and many functions, it can create a better instruction.

● Companies' development of WBT in future

Development and roles of WBT in each company is different. But, their development in future is very important. Because that their direction of developments is based on what they need to improve. By understanding these can find problems or improvements that need to be noticed when facilitate the development of WBT.

1. Development in future

(1) Change types of training programs

One of the five companies wants to change their training programs to have more relationships with their produce line. This will more meet their needs of training. Besides, in the new design of instructions will cooperate with videos which about operation of machine and separate each action to let

trainees can have more understanding. In addition, they also blend some classroom training with WBT to increase the effectiveness of training.

(2) Let trainees can learn by their preferences

One of the five companies hopes that they can facilitate employees to use ways that they like to use system of WBT. Let trainees can learn by ways which are appropriated to them. So, the goal in this year is to increase the level of freedom and flexibility of WBT.

(3) Increase the rate and frequency of using WBT

One of the five companies which has already implemented WBT for four to five years. During these years, the manager finds that the rate of employees who use web to learn is very low. So, in this year, this company will promote with coercive ways to push employees receive WBT. Besides, it also defines each trainee has to receive different amount of courses to force them receiving WBT.

(4) Make the display of instructions become more interesting

One of the five companies are pursuing fast. For example, when there is a new product in the market, the company has to open a program to let them have the latest knowledge. When the information can received by employees during a shortest time, it will be helpful to them. But in addition to this, this company hopes they can make the display of instructions become more interesting and colorful to let trainees won't feel so boring while receiving it.

(5) Establish a making factory

One of the five companies' instruction and materials are made by instructors. But in this year, it hopes that HR or training department can become a making factory. When instructions or materials are sent to the two

departments, they'll help instructors revise and rearrange them. And even the part of recording, the two departments also hopes they can help instructors do this in the future. Besides, they hope instructions which made by them can be very exquisite. So, they ask some consultant companies to help them revise and design the flash. This can attract more employees to study by web.

2.Reasons

(1) Change type of training programs

The company wants to change type of training programs in order to match trainees' needs of jobs. Besides, they also find that both of classroom training and WBT has its own advantages. Some training programs are appropriate to be display on webs but some are not. Only when blend this two kinds of training can create a good training program.

(2) Let trainees can learn by their preferences

The spirit of WBT is to let trainees can learn at any time and any place. In this company, trainees can only use WBT in the company. Owing to the problem of information security and firewall, trainee can't study at home. And the time that they can use to study in only the break time or work time in the company. Sometimes, this is inconvenient for trainees. Since it is WBT, the time and place for learning shouldn't be limited. This is why this company engages in the part this year.

(3) Increase the rate and frequency of using WBT

The reason of increasing rate and frequency of using WBT is that the company thinks if they want to achieve higher effectiveness from trainings to the company, trainees need to use this system frequently at first. If the rate is high, it means that employees like to use this system to gain knowledge and they can receive some things that help them do their jobs by this way. If there

is no one wants to use this system, the cost is wasted. Besides, it means that this system don't bring any effectiveness to this company. So, if the company wants to have more effectiveness of training, they have to push employees to use this system and then, improve this system by opinions from users.

(4) Make the display of instructions become more interesting

The company thinks that if the instruction is very boring, it's more difficult to push trainees to study. Employees all like to participate in a colorful training program. So, this company will increase using flash to attract their senses of sight. By this way, this can also increase their interests on WBT.

(5) Establish a making factory

The company thinks that every instructor's ability to create instructions or material is different. Some instructors have many professional knowledge and experiences about their jobs. But, they don't have the ability to create a good Power Point or instruction. By this reason, this company thinks that a making factory which is HR or training department is necessary. This kind of factory can help instructors to revise and make article design to move up the quality of materials and instructions.

Main findings

After analyzing and discussing data from survey and interview, main findings of this research are induced as following.

1. The speed to link internet, the variety of methods to evaluate how learners studied, choose any place to study, and learn in their leisure time are regarded as influential factors by most of samples

From the result of survey, it shows that there is only one factor that 100%

managers think it has influences on trainee satisfaction which is the speed to link internet. Besides, factors which are regarded as influential by over 90% managers are the variety of methods to evaluate how learners studied, choose any place to study, and learn in their leisure time. These factors are also ranked as the first to the third highest percentage. Although the rank among influential factors of managers' viewpoints are different from employees' viewpoints, the four factors are also ranked from the first to the fourth highest percentage. Even the factor which is learning in their leisure time not included in the third highest percentage, it is still ranked fourth and has over 70% employees identify with its influences.

2. Access the online web-links to important sites and experiences of participating discussion board are regarded as influential factors by the least of managers and employees

As for factors which are regarded as influential one by the lowest percentage of samples, there is only one of 18 managers thinks that access the online web-links to important sites has influences on trainee satisfaction and this factor is also identified by few employees. Besides, the factor which is agreed with by the least employees is experiences of participating discussion board. There are only 2 employees think it has influences, so do managers' viewpoints. Although there are some similarities between managers and employees' viewpoints, differences still exist.

3. Managers and employees has different viewpoints on factors which are the frequency for using internet, the teaching style of instructor, receiving timely comments from instructors, and the speed to reply questions

From the result of interview, it reveals that employees and managers all think that the influential factors asked in this interview have influences on trainee satisfaction on WBT. Although the percentage of some factors which showed in survey reveals that they are not identified by over 50% managers or employees, it

doesn't mean that they have no influence. Their influences are not as strong as others when make a comparison between them. Employees think that the frequency for using internet has fewer influences than other influential factors. As for the speed to reply questions which are posted, managers think that using e-mail is already very convenient and enough to reply questions. But employees think that e-mail takes too much time to get answers. Besides, although managers think that the teaching style of instructors has many influences on trainee satisfaction; employees think that when the instruction is made by flash, this factor has less influence on their trainee satisfaction.

4.Design of content, friendly design of the system, quality of multi-media, inducement, supports from supervisors, and instructors' professional ability are other influential factors.

When do some research which are related to explore some factors, it is difficult to include all factors to study. From interviews, managers and employees share some viewpoints about other influential factors which are design of content, friendly design of the system, quality of multi-media, inducement, supports from supervisors, and instructors' professional ability. The six factors are from managers and employees' viewpoints. In employees' viewpoints, they didn't mention about factors which are inducement, supports from supervisors, and instructors' professional ability, but they think that design of content, friendly design of the system and quality of multi-media are other influential factors which has influences on their trainee satisfaction. However, in managers' viewpoints, they all ever mentioned about these factors.

5.Increasing promotion and meeting trainees' needs is very important.

From interview, results show that there are four methods which are increase promotions, combine training programs with job position, improve WBT constantly, and increase the function of WBT system to increase trainee satisfaction. Increase promotion is not only the method to fulfill trainee satisfaction but also future's

development of WBT in some companies. Promotions not only use some activities with prizes to let trainees have higher satisfaction, but also let the rate of employees who using WBT system becomes much higher. Besides, in interviews, not only some employees think that the training has to meet their jobs' needs, managers also think that this can be a method to increase trainee satisfaction.