

CHAPTER II. LITERATURE REVIEW

This chapter is involved four sections related to the topic, and from these sections below, the main ideas about this study will be identified clearly: 1. Definition and Concept of WBT; 2. Learning instructional design in WBT; 3. Motivational theories for adult learning. 4. Relevance study.

Definition and Concept of WBT

Definition of WBT

In the beginning of its development, people use computer-aided instruction to implement learning activities by computers. However, web-based training is advocated as an enterprise-wide training solution because all members of an organization can access it and because it can fill almost any gap in skills and knowledge (Driscoll, 2002: 5). As the authors mentioned above, WBT is a tool or a method that facilitate learners or learners to accomplish learning activity. People use WBT as a tool for training because of the convenience and delivery for learners who are far distances away; and also, like Fisher (2003) described” The fundamental value proposition for teaching and learning on the web is human performance achievement. Productivity improvements and academic results have been demonstrated with technology-mediated instruction (Kulik and Kulik, 1986; Kulik, Kulik, and Bangert-Drowns, 1990), and the performance is the goal we are after. The web helps instructors deliver on the value proposition.” From the description we can explore that the meaning of web for people is not only a delivery tool, but the use and emphasis of it is also advancement for people- it means that people expect to achieve their goal trough WBT, especially many companies take web as the system helping operating and organizing the administration or managing the resources of knowledge.

Now we may hear “e-learning” a lot, WBT and e-learning seem very similar, yet there is some difference between the two. E-learning is a broader term that replaces WBT when talking about the relative field gradually, however, e-learning also refers to technology aspect rather than only including design, management and so on. The technology part is not going to be discussed in this study, so the researcher uses the term of WBT instead of e-learning.

To sum up, WBT is an approach when corporations try to train employees to gain more benefits at the beginning in its infancy, but in recent years, it is taken broadly as a whole package of training, even managing, not just a tool.

Concepts of WBT

People use WBT as the method of training because they can deliver their courses through technology, and they are free to continue learning activities regardless of far distance, particular training time or some of these companies set up a database that manages all the training programs they implemented before to form a knowledge management system that uses and shares the resources internally. It's the high praise of WBT, and actually, it's the main factor that people adapt WBT as one of the training approaches. In addition, WBT can save training costs when the number of learners reaches certain enormous, especially in quite big companies. WBT usually can be divided into two kinds according to delivery time issues; these two kinds of WBT categories are synchronous training and asynchronous training.

The synchronous course (ITV, Interactive video) was taught in a similar fashion to a face-to-face course (Gagné, Briggs & Wagner, 1992), but best practices for teaching over television were incorporated (Cyrus, 1997). There were brief introductions to the lessons (icebreakers or openers), short lectures using PowerPoint graphics, small group exercises (concept mapping, brainstorming, case studies, etc.) and then

independent readings and assessment techniques to determine if the students fully understood the content. The instructor was very comfortable teaching over ITV and understood how to use all features of the equipment to build interaction and rapport with the learners (Dooley, Lindner& Richards, 2003).

As for asynchronous course is like the following description: The asynchronous course was designed to be competency-based, rather than relying on more traditional “contact hours.” The course was broken down into five modules with several lessons within each module. Students interacted in cooperative learning teams. Although the course was asynchronous, the instructor expected students to interact within the same week on particular content areas (Dooley, Lindner& Richards, 2003).

Apparently, the difference between synchronous course and asynchronous course is immediate interaction whether between instructors and learners or within learners themselves. Besides, most corporations in Taiwan nowadays adapt asynchronous training courses since asynchronous way let them feel free to learn whenever these learners want to, and also it’s time saving and cost saving for these companies. They carry out learning activities through internet or intranet, these two tools are used most frequently in WBT. All the learning activities like e-mail, lecture, discussion, practice, or some tests on the web-sites. So in this study, the researcher focuses on asynchronous training only to match up the situation in Taiwan.

Instructional Design in WBT

Instructional system design (ISD) is a process for developing instruction. The ISD approach acknowledges a relationship among three factors: learner, instructor, and materials. Many instructional system design models exist, ranging from simple to complex. All provide step-by-step guidance for developing training (Driscoll, 2002: 82). For adult learning program, instructional design is important and the core in developing step. Instructional design is very complex that includes many aspects and levels, what we need to do in adult learning instructional design are situation analysis; identification of needs; establishment of objective; implementation and evaluation. The five levels are the process of developing adult learning program; even we put the training courses as WBT sessions, the five main stages can't be neglected. Before one training program is decided to be developed, the trainers and the HR department should think about why they need to do so, "training need" is the basement of a program; once the training program can't satisfy these learners' needs or the training effect is identified insignificant, people involved in this training program will be unbalanced in psychological level, and this result will discourage them to develop and join following training program. So identify training need beforehand is quite important to trainers and learners, without training need, everything they do is going to be in vain.

Instructional Design Model

There are too numerous to count instructional models developed these years, such as Air Force Model, The Critical Events Model, ARCS Model, and Generic Model (ADDIE) and so on. The researcher mentioned only four famous models to discuss here.

Air Force Model was developed as an instruction to educate air force in USA

during 1940s, and it is the first model in this field. This model includes five steps as need of system analysis; ensure needs of education; developing objectives and tests; planning, development and examining teaching; practicing and evaluating teaching. These five steps affect each other so they are revised at the same time sometimes.

The Critical Events Model was mentioned by Nalder (1982), this model reveals nine steps such as: check organization's needs; check work contents; check learners' needs; setting objectives; developing courses; selecting instructional strategies; selecting teaching resources; training practicing; and evaluation and feedback. In addition to the last step "evaluation and feedback" step, other steps would be repeated and implemented constantly in this process.

As for ARCS Model, Keller mentioned this model in 1984. This model includes four important parts as: attention, relevance, confidence, and satisfaction. These four elements stand for four dimensions related directly for instructional design process and they are closely linked. Most of time, this model is used when it comes to learning motivational issue.

Generic Model is so called ADDIE model and mentioned by Seels & Glasgow (1998). This model sum up previous ones and simplified all the complex steps into five clear stages in instructional design, yet this model includes all the important elements from other models, analysis, design, development, implementation, and evaluation. It is the most popular and the most practical model so far. In the process of ADDIE model, every step is related to former and the next steps, and the instructional designer can stop it to examine or revised anything anytime.

According to the strength and features of ADDIE, the researcher adopted this model to developed following research.

ADDIE Model

The process of developing WBT program mentioned earlier is so called ADDIE model. ADDIE refers to the five stages of analysis, design, development, implementation, and evaluation. Although modifying the ADDIE procedures to some degree, the instructors began the design process with the analysis stage (Davidson-Shivers, Salazar & Hamilton, 2005). ADDIE is very popular and typical model including complete procedure for instructional design, so the researcher adopt ADDIE model in this study to probe into instructional design. Here is the training process model that illustrates the relation and process in ADDIE model in figure 2.1; through this model we can get the whole picture of training program process, even we build the training courses on web, the principles are the same.

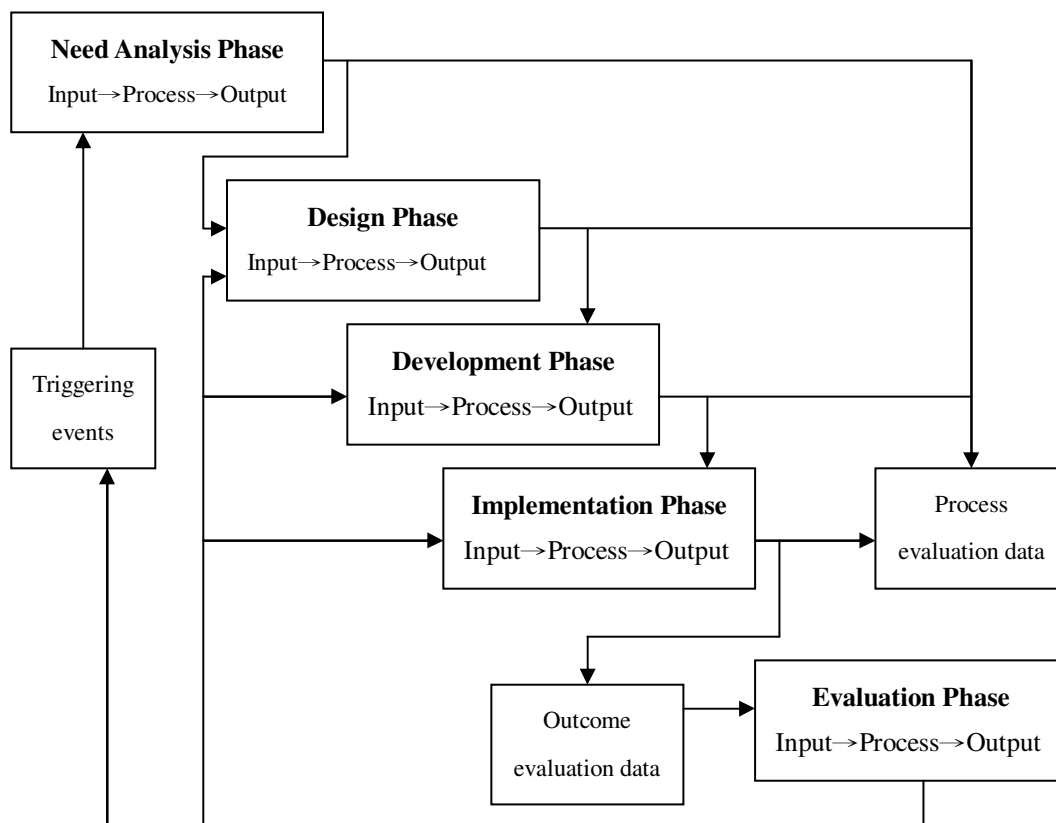


Figure 2.1. Training Process Model.

Sources: Blanchrard & Thacker, 2004

Needs Analysis Phase

The first stage for developing training courses is need analysis. Training need analysis (TNA) is a systematic method for determining what caused performance to be less than expected or required. A TNA is important because it helps determine whether training can correct the performance problem (Blanchrard & Thacker, 2004). According to Blanchrard and Thacker (2004), they discussed the TNA model and assess training needs build upon organizational, operational and person points of view. They also provided the figure, showed as figure 2.2, about analysis phase illustration to explain the relation of elements within TNA.

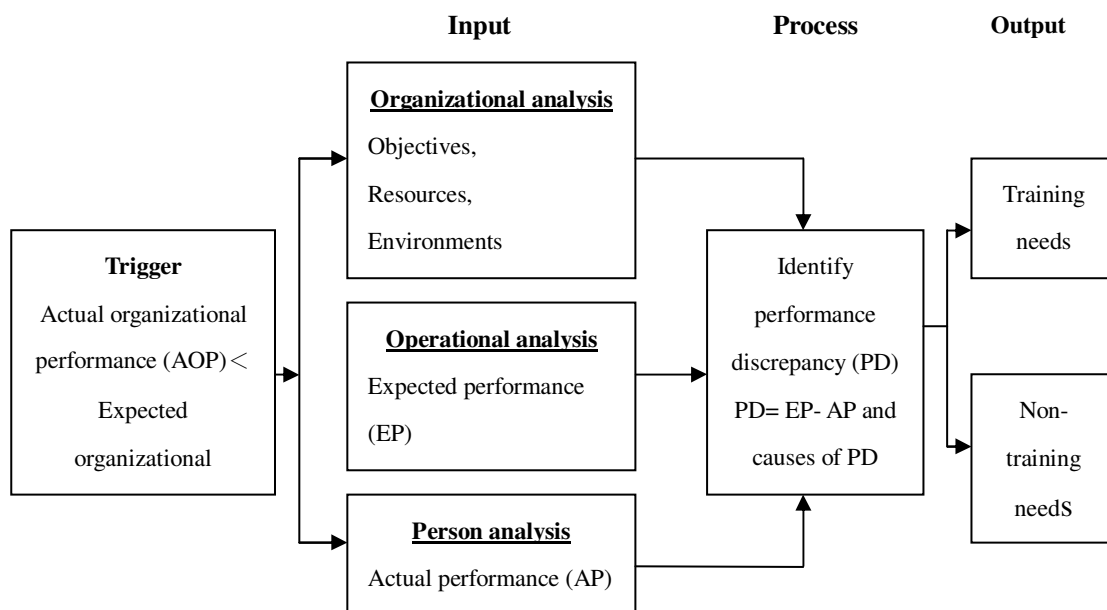


Figure 2.2. Training Need Analysis Phase.

Sources: Blanchrard & Thacker, 2004: 100.

We need to do the analysis for solving problems we meet and reducing the gap between what is desired and what is the training need. That is very important for developing a training program. When we do not understand what is the organization's need or what are organization's problems, then the performance problem may not be solved through training program.

Design Phase

After confirming TNA, next step is training program design; we have the information obtained from the training needs analysis (TNA). This information, along with organizational constraints and learning theories, are the inputs into the design phase. These are used to determine the learning objectives- the process parts of the model (Blanchrard & Thacker, 2004). All the elements in this can be shown and explained through the figure 2.3 below:

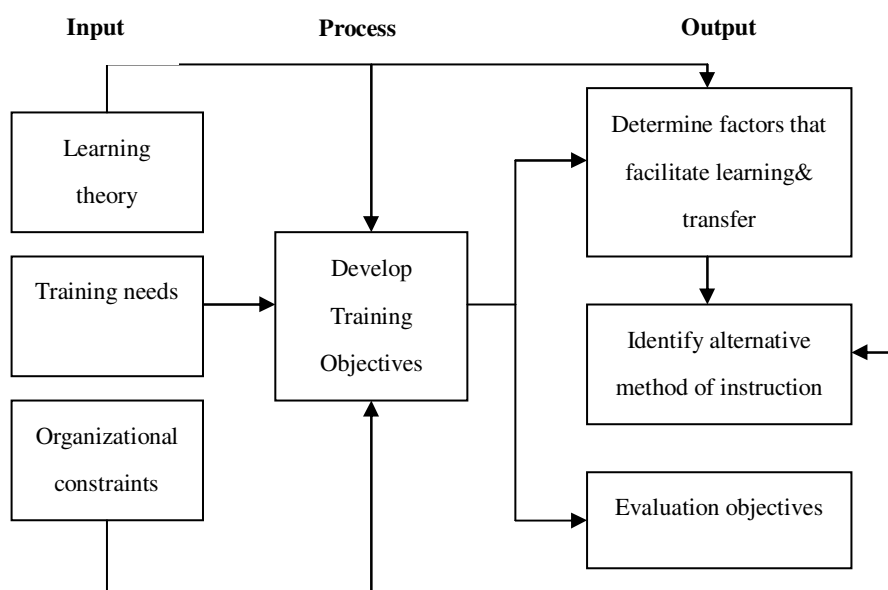


Figure 2.3. Training Design Phases.

Sources: Blanchrard & Thacker, 2004: 159.

In the design of training, several constraints need to be considered, such how much time will be given to prepare and present training, ho much of a priority it is, and how much many can be spent. Once these questions are answered, it is necessary to determine the type of learner, their current level of KSFs, their motivation to learn, and degree of homogeneity for the group (Blanchrard & Thacker, 2004: 205-206). This point of view reminds trainer or training department the practical issue that we

should think about beforehand, because these practical difficulties could be the reason of failure.

Development and Implementation of Training

At development stage, Blanchrard & Thacker (2004) mentioned that creating a program development plan is crucial to ensure that everything that needs to be done is done. From the figure below, we may find out there are: material, equipment, learners' and trainers' manuals are combined in this part when developing training program; in addition to those above, types of training facilities chosen is also very important, only appropriate arrangement and settings can create better training effect. The relations can be shown in the figure 2.4:

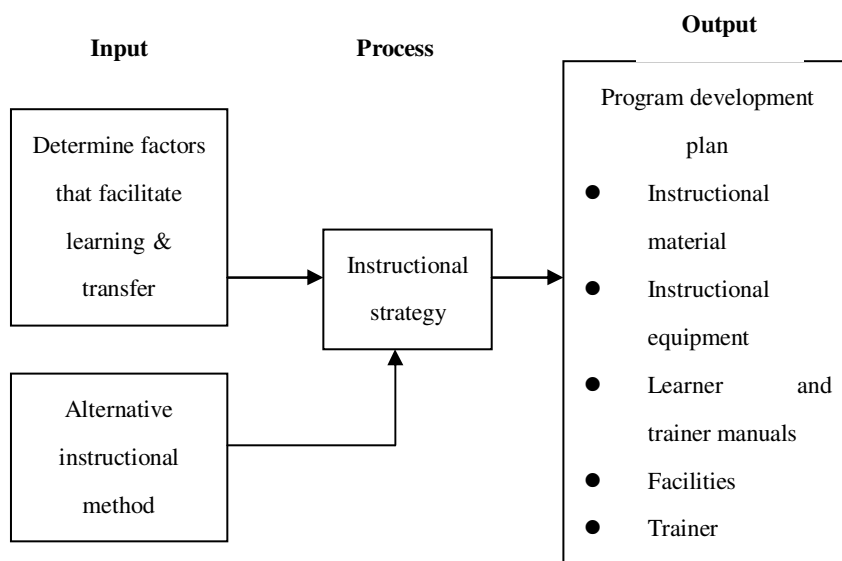


Figure 2.4. Training Development Phase.

Sources: Blanchrard & Thacker, 2004: 296.

As for the implementation of training, it is very practical issue, there is a very typical issue related to keeping learner' interest in training and lots of instruction method are discussed to improve this kind of problem.

Evaluation of Training

Blanchrard & Thacker (2004) thought that training can be complex and costly, they suggested that organization choose the level they need to evaluated, and that would be useful. Deciding what training should be evaluated, and at what levels, will be easier if the organization is proactive. By examining the strategic plan, it is possible to identify those areas of training that require evaluation and the extent to which evaluating is necessary (Blanchrard& Thacker, 2004). What they mentioned gives us an idea that how we strike a balance between theories and practice; the elements are displayed in figure 2.5 below.

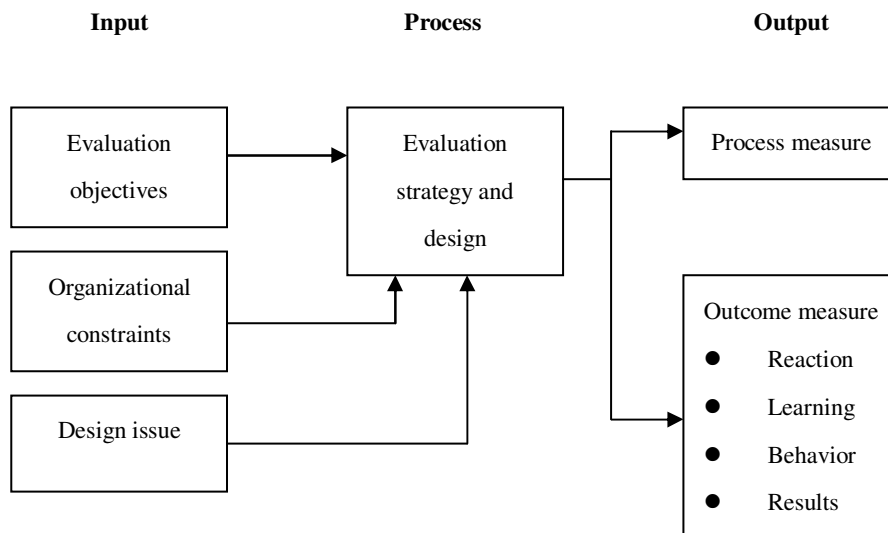


Figure 2.5. Training Evaluation Phase.

Sources: Blanchrard & Thacker, 2004: 335.

In this section, the researcher described training instructional design issue based on ADDIE model and the detail issue in each steps of ADDIE. Instructional design is the frame in a training program. When it comes to instructional design in WBT, the basic principles and rules are the same as general learning courses, therefore, some

practical issues existing all the time and they are needed to be solved.

Motivating Factors in Instructional Designing

Most process of developing training program doesn't allowed learners to involve in, and some parts of the process that learners can directly contact, or they just care about the parts they can touch. Thus, the researcher mention about some parts those learners can contact with directly through some literature or studies. There are information presenting (including course content and material), interaction and feedback, assessing learning, and lecturer/designer.

Alessi and Trollip (1991) described components of a WBT course. There are four phases in any complete instructional interaction. The four components are presenting information, guiding the student, practicing by student, and assessing student learning.

The informing/presenting phase is the foundation phase. In it, the instructional designer provides the students with content, information, and the method for achieving the instructional objectives (Driscoll, 2002); the cycle closes with an assessment phase that answers the questions: "Was the instruction effective?" "What is the next step for the learner?" (Driscoll, 2002) Through this paragraph, we can see that information presenting is the basic part of the WBT courses, because those items in it are theses learners touch directly. And learning effective is also important to learners- they want effective and clear goal courses.

Driscoll (2002) also talked about guidelines for facilitating program for adults, and one of the guideline is: "Provide meaningful feedback that improves performance". According to this guideline, Effective program use feedback to develop the learners' ability to self-diagnose their program and eventually correct errors without prompts. The contents of guidelines include effective assessment, adequate practice and actively engage the learner to increase learning and so on, and the author

also mentioned that well interaction facilities learners and makes them pay more attentions on the courses. Besides, fast and meaningful feedback improves performance. Web-based training programs can provide rich and meaningful feedback during guided practice and student practice. In addition to simple test remediation explaining why as answer is wrong, graphics can illustrate solutions (Driscoll, 2002). Feedback and interaction in WBT process is very necessary element.

Besides, training courses designer and instructor/lecturer also play very important role in it. Professional designers and instructors encourage exploration, acting and reflection, and they can help learners whenever they need any support. Create a safe and respectful environment is needed to be done by professionals. In technological aspect, the initial commitment of time and energy is large as course materials and presentation need to be converted from face-to-face to Web-enhanced or Web-based delivery and convention of “digital instructional resources” may require the instructor to learn new technology skills (Abbey, 2000). Therefore, professional people is quite important in developing WBT courses and also influent on these learners, especially who contact with these learners as lecturer, they know what are theses learners’ need in WBT process.

To sum up, there are many elements forming a WBT course, yet some elements are the critical factors that motivating learners, especially those they can directly face and feel. In this study, those important elements are what the researcher likes to explore; ADDIE model reveal a whole and complete process a program experiences, but somehow, some parts of it won’t directly impact on learners’ feelings, and the gap between the two seems not so influential but they do play very important parts in this process, too.

Learning Motivation Theories

In this section, the researcher has reviewed a few motivation theories regarding to adult learning, through these theories, therefore, we can get a concept about adult learning motivations. First of all, hierarchy of human needs theory explains human needs in psychological point of view, and as the pioneer leading the following theories' births.

Hierarchy of Human Needs Theory

Maslow (1970) attempted to develop "Hierarchy of Human Needs Theory" which explains human's needs are satisfied one after the other. There are five kinds of needs he mentioned, and these are satisfied one by one, only when lower levels of needs are satisfied, people will be conscious to go after higher levels of needs. The five levels of needs are: physiological needs, safety needs, love and belongingness needs, esteem needs and self-actualization needs.

From Maslow's viewpoint and other literature, the researcher concludes that needs cause motivations, and Maslow's theory explains human original beings' needs and the priority of the needs- only when the lower need is satisfied, then the higher need will be aroused, and the individuals will take actions with motivations to pursue something that can satisfy them. Maslow's Hierarchy of Human Needs Theory is like a pioneer for motivation theories later on and it is the basement of education and learning psychology theories and that's why it is so important.

Adults' learning is different from primary school students'. Adults have their own life and work experiences for a long time and they learn new things to solve problems they meet immediately or they learn because they are interested in some fields. They know what they need and what they want, so sometimes they choose learning activities to achieve their goals. However, in companies adults are required to

accept training courses to improve their professional knowledge or skills; even sometimes they are encouraged to have self-growing courses that can help employees gain inner peace and relax from work. After all, all the companies need well-educated and healthy employees, and that is the main reason companies take training as the important strategy for developing themselves. Like the description above, some adults participate in learning activities out of self-will that is so called self-oriented learning; however, this study discuss the other situation, and that is in business situation, employees are required to take training courses.

Thus, the researcher is going to provide some theories related to motivation theories for adult learning in this section in the following descriptions.

ARCS Model

In addition, Miller developed ARCS model (attention, relevance, confidence and satisfaction) in the early 1980's, and theory is regarding to learning motivation containing motivational strategies, tips or tricks. The four levels of ARCS are attention, relevance, confidence and satisfaction. For several years, Keller (1987a, b) has been developing and testing a model to assist educators in a systematic process for analyzing learner motivation and designing motivational tactics that are keyed to specific areas of motivational problems and integrated with teaching/learning strategies. This process was derived from a comprehensive review and synthesis of motivational literature that classifies the major motivational concepts and theories into four categories depending on whether their primary area of influence is on gaining learner attention, establishing the relevance of the instruction to learner goals and learning styles, building confidence with regard to realistic expectations and personal responsibility for outcomes and making the instruction satisfying by managing learners' intrinsic and extrinsic outcomes. This process is called the ARCS model

based on its acronym (attention, relevance, confidence and satisfaction) (Keller & Suzuki, 2004).

According to ARCS, we can find that the last one level “satisfaction” is important and the key of motivating learners to participating learning activities. Though there are not so many studies regarding to this topic, the researcher can still observe some related literatures indirect to explain satisfying learners’ needs encourage them participating training courses in the future.

Motivational Theories for Adult Learning

Adults in WBT learning are special and needed to be paid more attention to due to their learning characteristics can not be so simplified like young students in school. Thus, this section included several motivational theories for adult learning to convey the importance of adults' learning motivations on WBT.

A Force Field Analysis

Miller (1967) engaged in adult education field for years and announced "Force Field Analysis Theory". This theory explains the relation between participating learning activities and social stratum, and individuals are willing to join learning activities because they have learning needs themselves. And the needs of individuals come from the power of their life along with social status they are. Individual's need and power of social status can influence the willing of participating learning activities.

Moreover, based on hierarchy of human needs theory, Miller indicated that most people who are in lower social status are more interested in learning activities regarding to job training courses that can improve their life; on the other hand, those in higher social status and don't need to work very hard to satisfy lower level of needs, they are always seeking for learning activities to gain self-actualizations. This theory implicate that learners take learning courses to meet their needs, however, people from all kinds of social statuses have their own need to motivate them to participate in learning, but their goals are different, so they choose different kinds of learning courses to improve their job abilities and improve their lives, or look for their self-actualizations. Motivation is very important urging adults to participate learning activity.

Expectancy-Valence Paradigm

This theory was mentioned by Rubenson (1977) who had adjusted Vroom's "Expectancy Theory" and developed the one that appropriate for adult learning, see also figure 2.6. Expectancy-Valence Theory has emerged as a model for understanding and predicting in the behavior in the process of adopting innovations. Models of expectancy-value have been largely applied to industrial and occupational settings (Vroom, 1964; Mitchell, 1977; Wozney, Vekatesh& Abrami, 2006). Building on Shepperd (1993) model of productivity within groups, we aim to apply expectancy-value theory to construct a model of the diverse issues involved in a teacher's decision to integrate computer technologies in their teaching. We believe that such a model may offer a more parsimonious as well as predictive model of teacher use and integration of technology for instruction (Wozney, Vekatesh & Abrami, 2006).

According to this theory, there are two kinds of expectancies: individuals expect the reward after finishing the courses and individuals expect they can participate in the activities successfully; these expectancies are positive to individuals. And the other factor is valence that affecting willing of participation, the effect can be neither positive nor negative just depends on how much individuals expect the learning courses. This theory provides an idea that more positive expectancy individual got to the activity, the valence is higher; it means they will be devoted to the learning activities due to expecting the result of the activities. The figure below can explain the expectancy-valence theory clearly about how these few factors interact and how they influence the expectancy finally.

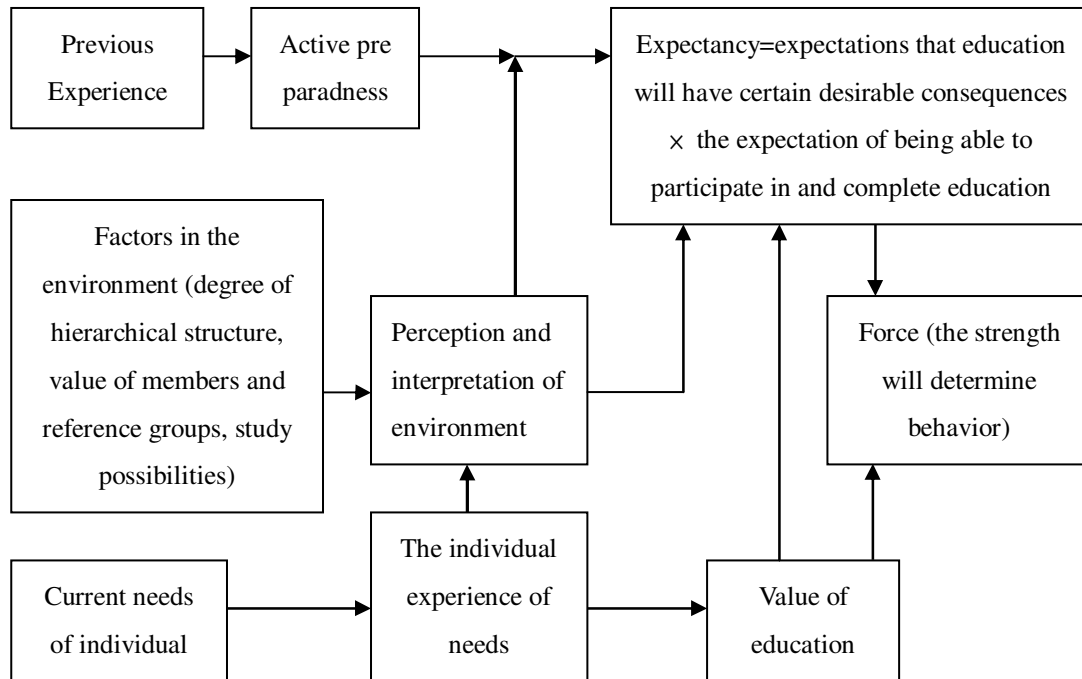


Figure 2.6. Rubenson's Expectancy-Valence Paradigm

Sources: Cross, 1981: 118.

Congruence Model

Build on Maslow's hierarchy of human needs theory, Boshier (1973, 1977) developed congruence model and pointed out adult learners' motivations can be divided into two types: growth-motivation and deficiency-motivation. Growth-motivation participants join learning activities to look for higher level of needs to gain self-actualization, their learning activities are expressing rather than coping; but deficiency-motivation participants take learning courses to makeup unbalanced living situations, their participation is homeostatic.

Boshier (1973, 1977) posited that both participation and dropout stem from an interaction of both internal psychological variables (either growth-motivated or deficiency-motivated) and external environmental variables. He suggests that a growth- motivated person is inner directed, autonomous, open to new experiences,

can be spontaneous and creative, and is active in creating the future. Deficiency-motivated people are often directed by social and environmental pressures. They are more afraid of the environment and often determine their future by being more reactive to the environment Boshier (1973, 1977) believes that enrolling for deficiency reasons is associated with intra-self incongruence, self/other incongruence, and unhappiness with the educational environment. Therefore, participation and dropout can be viewed as a function of the magnitude of the discrepancy among/between the participant's self-concept, a match between student and other students, instructor, educational processes, and the environment, including job responsibilities, home responsibilities, and so forth. Social, psychological, and environmental variables are posited as mediating the participation/dropout behaviour with Boshier's past research suggesting that dropout is associated with a student's feelings of incongruence but that this incongruence is projected onto the educational environment (Gibson & Graff, 1992). This paragraph interprets Boshier's theory well and in detail, this theory explains two types of learning motivations, and also explains the dropout situation.

Chain-of-Response Model

Cross (1982) addresses a model and tried to interpret factors that affecting learning activities, the process of learning is a chain of response; all the events are dependent on each other. There are seven factors: Self-evaluation, attitudes about education, importance of goals and expectations that participation will meet goals, life transition, opportunities and barriers, information, and participation. How these seven factors interact is illustrated by the figure below. Individual's motivation causes and the process will be developed step by step; besides, Cross (1982) pointed that individual's attitude about education comes from individual's personal experience,

and then significance others' attitudes and experience. Attitudes about education affect self-evaluation and make adults' learning feature that could be positive or negative.

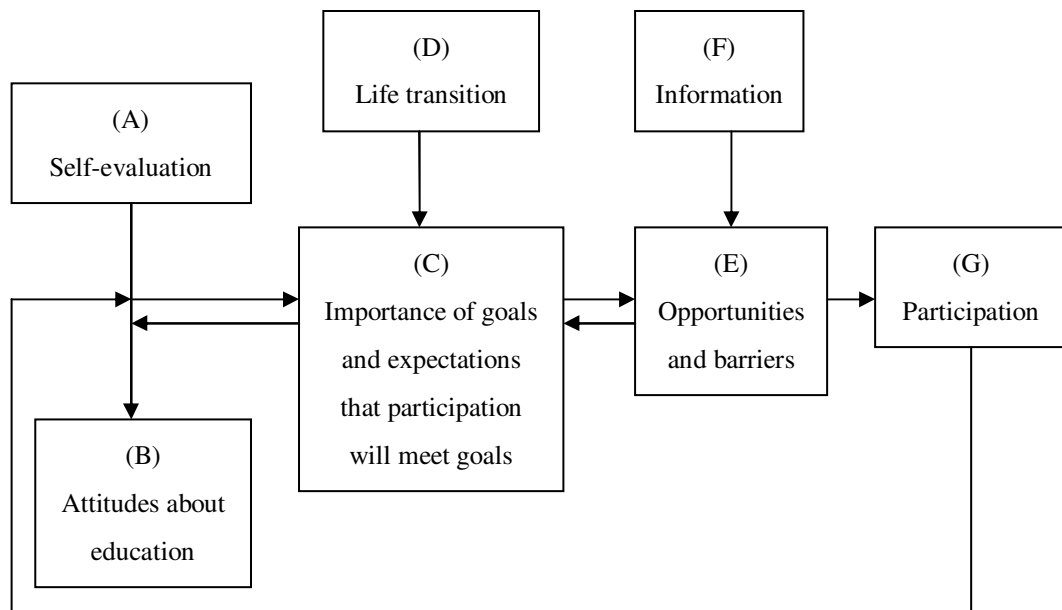


Figure2.7. Chain-of-Response Model.

Sources: Cross, 1982: 124.

From the four adult learning motivation theories, learning motivations and participation are not existing without being affected by other factors, learning motivation is interlaced by individual's need, the expectancy and attitudes about education and so on; individual participate in learning activities to strike a balance or seek for self-actualization.

Relevance Study

There are many researches related to WBT, this study explored and analyzed these results regarding to instructional design viewpoint and adult learning viewpoint; and what have been concluded are described in the following parts.

Instructional Design Viewpoint

Barron (2000) mentioned design considerations for WBT:

- Conduct a thorough media analysis.
- Dynamic information that must be updated constantly.
- Widely-dispersed audiences.
- Content that does not rely heavily on audio or video.
- Courses that would benefit from communication with the instructor.
- Place course objective first and foremost.
- Analyze the platforms of the target audience.
- Make the interaction meaningful.
- Consider visual guidelines.
- Use high contrast between background and foreground.
- Limit the size graphic files.
- Limit the number of graphics on each page.
- Limit the width of graphics to less than 472 pixels.
- Different among the hyperlinks.
- Use descriptive words for links.
- Include fixed links to provide a structure to the WBT.
- Provide information for links that involve large file transfers.
- Limit the length of web pages.
- Minimize of audio, video, plus-ins.

Besides, Lee and Chamers (2001) mentioned important considerations of using WBT in corporations, and these considerations are described as follows:

- Cost effectiveness.
- Course consistency and delivery.
- The bandwidth limitation.
- Learners' technical skills.
- Security.
- Changing role of trainer and training department.
- Impact of digital relationship.

From the above, the researcher concludes several considerations of instructional design on WBT:

- Trainers or instructors well understand knowledge and skills of instructional design.
- Good communication between training department and IT department.
- Complete and clear course analysis to figure out course objectives.
- Understand learners' computeracy, learning characteristics, and the level of background knowledge.
- Provide learners assistance.
- Well-design content presentation and clear interface.
- Well interaction and feedback system.
- Well and complete evaluation.

Adult Learning Viewpoint

In Driscoll (2002) viewpoint, she brought up guidelines for facilitating programs for adults:

- Relevant and problem-centered programs are best for adults.

- Structure learner's experience.
- Provide meaningful feedback that improves performance.
- Use effective assessments that test what has been taught.
- Provide adequate practice that leads to mastery.
- Actively engage the learner to increase learning.
- Use multimedia elements in meaningful ways.
- Create a safe and respectful environment.
- Encourage exploration, action, and reflection.
- Nature self-directed learning.

Also Driscoll quoted from Hara and Kling (2000) two things would frustrate learners in their book: technical problems and inadequate feedback. For technical problems, Hara and Kling though selling point of WBT is learning anywhere and anytime, it means employees learning by themselves after business hour, but in many cases, learners always feel frustrated by hardware and software problems; however, learners also feel upset when they cannot get quick response, they don't know how the perform in that class either. Even instructors contact with learners by e-mail, these learners still feel frustrated if the response is very brief and short without details.

What they mentioned about frustrating adult learners are:

- Technical problems.
- Inadequate feedback.
- Overwhelming e-mail and threaded discussions.
- Lack of navigation skills and meta-cognitive skills.
- Ambiguous instructions.
- Domination by one group of learner.
- Physical fatigue.

From the sections above, we can tell that adult learners view feedback and

effective courses very much, what they need are very reflection, interaction and encourage learning environment. Andragogy is totally different from pedagogy, though some learning theories are the same, their learning characteristics are divers. Some articles described adults' learning characteristics, like Knowles (1984) thought that andragogical model should be built upon at least four assumptions that are differ from pedagogical model, and later he added the fifth assumption, the assumptions are:

- Self-concept: As a person matures his self concept moves from one of being a dependent personality toward one of being a self-directed human being.
- Experience: As a person matures he accumulates a growing reservoir of experience that becomes an increasing resource for learning.
- Readiness to learn. As a person matures his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles.
- Orientation to learning. As a person matures his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem centredness.
- Motivation to learn: As a person matures the motivation to learn is internal (Knowles 1984:12 &Smith, 2002).

What Knowles (1984) reminded us about andragogical model should be based on the five assumptions helps us clarify the characteristics more and according to these assumptions, we may identify adults' learning characteristics are: they learn based on self-concept, personal experience, readiness, clear orientation and motivation to learning. It explained the truth that when adults implement learning activities, they want clear learning goal, they need feedbacks, they need clear directions and instructions, and they learn new things based on their experience; they

may choose the courses they are interested in, what they need them badly and the courses suiting themselves most. In a way, adults learn positively and autonomously because they can choose whatever they like and they want, but this situation is happening in general adult learning activities only, most employees in companies usually assigned to take training courses, it means they learn without autonomy.

After all, the main reason that causes whether adults are willing to learn or accept training sessions is based on their “need” psychologically. Monette (1977) defined need as four categories: bio-psychological needs; want, interest or desire needs; normative needs; and other kinds of needs. According to Monette’s theory, we can find out that most learners in companies are required to accept certain kind of programs, and that is so called normative needs- they need to improve and increase their professional knowledge and skills to keep better working performance.

Summary

Adults are very special in learning process, especially when they face to WBT that is a system lacking of direct interaction with people, and needs computer skills to operate it. Finding out their learning characteristics, what encourage them, or what frustrate them are important because we got to determine all these factors to develop well-designed WBT program to bring out the best learning performance.

When it comes to bringing out the best learning performance, instructional design is the basement and so important that can’t be ignored. Only do we emphasize on instructional design and practice every detailed part of it, we can just carry out WBT to the better result.