

Chapter 2

Literature Review

2.1 Health Promotion

The new public health was active in the sanitary revolution in 1840. The health was developed continuously until “Health for All” was adopted by WHO (The World Health Organization) in 1981 (Kemmer and Close, 1995). WHO defines “health” as the inextricably interlinked physical, mental and social facets of health. However, Downie et al. (2000) disagreed with WHO and also proposed “health” is related to well-being as indicative of positive health. The main focus is on fitness as part of positive health. Moreover, health has to link to health promotion which emphasizes on better health (Downie et al., 2000).

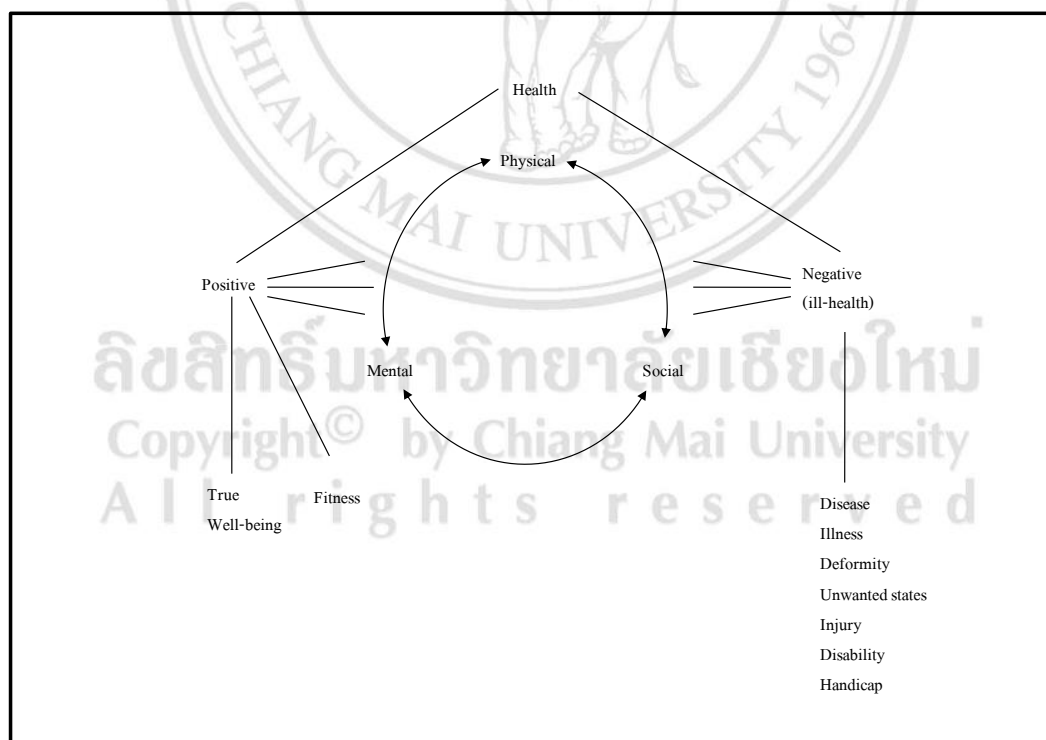


Figure 2.1 The model of health (Downie et al., 2000)

This model presents the elements of health and their interrelationships. Positive and negative health are interconnected to physical, mental and social element. These facets link between positive and negative which refer to the levels of positive health and ill-health. Each one particular facet is consistent with each facet, for example, physical illness might go together with a low level of physical well-being or fitness. The relationship between positive health is comprised with true well-being and fitness and ill-health. That can be replaced by 'positive health' for 'well-being' (Downie et al., 2000).

The World Health Organization (1998) directed a comprehensive health promotion as the process of increase control over the determination and improves the health of individual and public. The health promotion actions towards the change of social, environment and economic by skills and capabilities strengthen the people. The strategies for health promotion are advocated by the Ottawa Charter. It represents three basic strategies, to create the essential conditions for health indicators, to enable full health potential for all people and to connect the necessary health and different society (Healey and Zimmerman, 2010). Supportedly, Kreuter and Devore (1980) proposed health promotion is as “the process of advocating health in order to enhance the probability that personal (individual, family and community), private (professional and business) and public (federal, state and local government) support of positive health practices will become a societal norm (Edelman and Mandle, 2002).”

Moreover, the Ottawa Charter (World Health Organization, 1986) defined health promotion as:

1. being a process of increasing the personal capabilities to control various factors affecting health and to develop their better health.
2. being a process of providing more power to make decision and doing other activities that affect their health.
3. organizing the activities focusing on the change of society, environment and economy in order to decrease the impact on public health and personal health.

4. setting the system to utilise the resources of education, society, environment for benefits of better health and decrease diseases.

Health promotion is the activity which prevents diseases or promotes positive health. The vision is to pay less attention in prevention of diseases and illnesses while paying more attention in promotion of positive health. The positive health includes physical, mental and social (Kemmm and Close, 1995).

Table 2.1 The three components and fields of health (Kemmm and Close, 1995)

Components	Absense of disease	Absense of ill health	Presence of positive health (well-being)
Physical health	Long life No physical disease Low-risk of disease Low-risk lifestyle	No physical symptoms No physical disability	Fitness Health-promoting lifestyle
Mental health	No psychiatric disease	No mental distress No mental disability	Self-esteem Mental ability Resilience
Social health	No social/family breakdown	No social/family frictions	Role in society Social support Sense of belonging

Table 2.1 shows the three components of health; absence of disease, absence of ill health and presence of positive health. Each of them is identified as physical health, mental health and social health.

Additionally, McGinnis et al. (2002) also stated that health promotion is on the decisions of what to do in changing high-risk health behaviors and how to measure the effectiveness of these new initiatives. However, the misunderstanding of health promotion a potential strategies can reduce the incidence and complication of chronic

disease. Timmreck (2003) defined health promotion as the “science and art of helping people change their lifestyle to move toward a state of optimal health.” On the other hand, O’Donnell (1989) expanded the definition as optimal health: a balance of physical, emotional, social, spiritual and intellectual health. Importantly, the concern is fallen on the prevention of disease in health promotion as a discipline.

Laverack (2005) stated that most authorities on health promotion get more involvement on a structured effort to prevent disease and to promote good health than an attempt of fixing health promotion after they develop.

Anspaugh, Dignan and Anspaugh (2000) pointed out that health promotion programs depends on attention and emphasizes on individual responsibility for their health. Controversy, Easterling, Gallagher and Lodwick (2003) argued that a prevention strategy is acted as health promotion that needs the prevention effort to engage the community in.

Barton (2003) mentioned that the achievement of optimal health is the goal of health promotion. However, a health care system spending its resources on curative medicine serves that goal without the great concern. Even though the current system of health care services is not trained to prevent things that have never occurred, the system is educated to manage crisis intervention as a patient is seriously ill.

Mckenzie, Neiger and Smeltzer (2005) stated that health education is not as big concept as health promotion. Therefore, more concepts on health promotion are included which are important to good health along with the educational (Healey and Zimmerman, 2010).

The definition of health promotion is as the change of behavior in people, physical, emotional, mental, social, spiritual and intellectual aspects. Its goal is to raise the skills and capacities, strenthen the optimal health in individual, family and community. These seem to be the discipline of prevention and promotion for positive health of health care system.

The health promotion is the good concept for high-risk behavior change in the people. It leads to positive health and happiness for the individual, family and community. Although the negative health-life style of people (such as tobacco and alcohol drinking, etc.) is rather changed in behavior because of the habitual daily of life, theories of health are basically to approach the suitability of implementation. They are beneficial for public health improvement.

2.1.1 Educational Theory

To understand any theory , it is required a clear idea to explain the theory and it is necessary to comprehend the educational theory. Therefore, Schleiermacher (1996) stated that educational theory is a scientific theory and it shares the specific attributes of science in general. As a genuine human venture, science will always be as limited as the human perspective on the world. Nevertheless, science aspires to assert propositions that are universally true. However, as a result of the limitations of man contradictory propositions and interpretations of the world compete for intellectual hegemony, and for Schleiermacher, “ this competition assumes the form of a dialogue in which oppositions are to be transcended and which represents the general nature of human knowledge: Only by exposing and conciliating oppsitions is man capable of describing the world; in man’s eyes reality is comprehensive only within the frame of polar oppositions and its interrelation (Schleiermacher, 1996).”

2.1.2 Behaviorist Approach Learning

Behaviorism is both a psychological movement and a philosophy. The basic foundation of behaviorism is that the study of behavior should be a natural science, such as chemistry or physics, without any reference to hypothetical inner states of organisms. Other varieties, such as theoretical behaviorism, permit internal states, but do not require them to be mental or have any relation to subjective experience. Behaviorism takes a functional view of behavior.

Watson defined (1878-1959) the term "behaviorism". He believes that it is based on thoughts, intentions or other unscientific experiences. Theoretically, psychologists emphasize more on measurable behaviors. Importantly, learning is the process of acquiring a new behavior through conditioning. Similarly, Bandura (1969) defined that behaviorism focuses on observable and measurable human behavior. To define behavior, behaviorist learning theories aim at changes in behavior that are the results of stimulus-response associations constructed by the learner. Behavior is conducted by stimuli.

The other view of Skinner (1905), Behaviorism is a view that learners are considerably passive who interact with the environmental stimuli. The behavior of learners is formed through positive or negative reinforcement. However, there will be the probability that antecedent behavior will happen again when positive reinforcement and negative reinforcement increase. In contradiction, when the decrease of punishment occurs, the antecedent behavior will happen again. The application of a stimulus is shown through positive reinforcement and with holding of a stimulus processes through negative reinforcement. Consequently, learning is as a change in behavior of learners. (Woolfe et al., 2003)

Generally, Behaviorist Learning Theory is used in education for class management and in classroom instruction. According to Orey (Laureate, 2008), behaviorist learning theory lies on "operant conditioning" which derives from learning on (1) reinforcing desired behaviors and (2) punishing undesirable one. By reinforcing effort, we reinforce desired behaviors. Since behaviorist learning is led by stimuli (Strandridge, 2002), when we reinforce effort, the students will be more confident. Consequently, they will be more self-motivated to learn and get engaged.

2.1.3 Cognitive Theory

Cognitive theory originated learning theory from Skinnerian and Pavlovian. However, Bandura attempted to point out that people are able to understand others by

applying cognitive theory not behaviorism. This theory has varied definition based on scholars.

As the view of Bandura (1989), Cognitive theory is under a learning theory of psychology that has an attempt to explain human behavior. Understanding the thought processes is the main aspect of it. The assumption is that humans have logical beings that alters the choices matching with their sense. Information processing is used to describe the mental process when it compares the human mind to a computer. Bandura (1997) also mentioned that it is the theory of psychology which has an emphasis of internal state, for example, problem solving, motivation, thinking, attention and decision-making. Additionally, Piaget (1973) defined cognitive theory as explain the mechanisms and processes of infants, and then the children develop into individuals with reasons and critical thinking. He believed that the child plays an active role in the growth of intelligence and learns by doing. He regarded the child as a philosopher who perceives the world only because of his experiences. Therefore, most of Piaget's inspiration in cognitive and intellectual development came from observations of children.

Actually, the theory of cognitive development emphasizes mental processes such as believing, perceiving, remembering and reasoning. "Reasoning is the essence of intelligence", and reasoning is what Piaget studied in order to discover "how we come to know" (Singer and Revenson, 1997). Piaget believed that cognitive development is to understand a new experience from a schema. Moreover, Piaget (1973) described how children think differently than adults do through his work. This does not mean that the children are thoughtless, or at a slower pace, but they have the different ways to think, comparing to adults. Piaget had three stages to describe development based on his theory as follow: 1) A schema is the basic building block of intelligent behavior, a form of organizing information when persons interpret the things they see, hears, smell and touches (Singer and Revenson, 1997). A schema can be a unit of knowledge, relating to one aspect of the world. Frequently, schemas are used to understand and to respond to situations. We store them and apply them when needed. 2) The four processes that enable the transition from one cognitive stage to another are assimilation,

accommodation, disequilibrium and equilibration.” Generally, educators view these processes as an explanation of cognitive learning processes (Piaget, 1973). 3) The four stages of cognitive development are identified as: sensory-motor (ages birth through two), preoperational (ages two through seven), concrete operations (ages seven through eleven), formal operations (ages eleven through sixteen).

On the process of schema, the four sub-stages were described as follows: 1) sensory-motor stage: ages birth through two (Piaget, 1973). The sensory-motor stage starts from birth until approximately two years old. Senses, reflexes and motor abilities develop rapidly at this stage. 2) Preoperational stage: ages two through seven. The children in the preoperational stage are not able to think logically. This stage may be the age of curiosity; preschoolers always have questions and investigate new things. It is during the preoperational stage that children think differently from adults. 3) Stage of concrete operations: ages seven through eleven. The stage of concrete operations begins when the child can perform mental operations. Piaget defines a mental operation as an interiorized action, which is an action performed in the mind. 4) Stage of formal operations: ages eleven through sixteen. The children in the concrete operational stage relate to the present, the here and now. Therefore, the children who can use formal operational thought can think about the future, and the abstract. Piaget’s final stage works with the beginning of adolescence, and starts abstract thought and deductive reasoning. The individuals are able to acquire the possible ways they can solve problems, and choose the solutions themselves from different points of view.

The other scholar is Woolfe et al. (2003), cognitive theory is a process with the focus of scientific inquiry. Individuals get involved in the learning process. Importantly, the learning is a process of linking schemas to new information. Consequently, New experience or learning ease to acquire when people can connect it with things they have already learned.

2.1.4 Humanistic Theory

There are two American psychologists, Abraham Maslow and Carl Rogers who attempted to seek the way for this new approach to improving the overall satisfaction of individuals and understanding personality.

Humanistic theory is based upon the idea of Carl (1989) that everyone has the potential to make a contribution to society and be a good and likeable person if their needs are fulfilled. Abraham Maslow and Carl Rogers led the humanistic theory movement and it was Maslow who developed the “pyramid of needs”. He also believed that fulfilling the needs as in the correct order would lead individuals to become self actualised, fully able persons. So only after the basic physiological needs such as food, shelter, warmth which are met can move individuals on to the next stages; the need to feel secure, to be loved and accepted, etc. (Rogers, 2004).

Later on, Maslow (1952) developed his theory not by studying mentally-ill patients, which is where much psychological knowledge is derived from up to that point, but by studying healthy, productive, creative individual's lives and careers. He concluded that there were common characteristics which were shared by successful individuals including self acceptance, openness and respect for other individuals (Gardner, 2005). Additionally, Humanistic theory is basically about the development of the individual. It was very popular in the 1970's but not today like Western nations where have generally moved slightly towards the political right and there is more emphasis on conforming and contributing to “ what is ”, a slightly more conservative society. However, humanistic theory does have a very strong focus on the individual and it is based on the belief that well-developed, successful individuals are best placed to make a positive contribution to society.

Humanistic theory suggested that the achievement of happiness is frequently dependent on achieving, or giving yourself the licence to investigate and track your own deepest interests and desires. There are a number of different ways to achieve your goals you may need to overcome obstacles such as fear or duty before fully develop and become self actualised. Whether you agree with humanistic theory or feel that it is

overly egocentric, that means there are those who think it is “free to be you and me, hug a tree crap” – there has to be some logic in the fact that in order to define what makes a healthy individual, its originators spent their time studying successful individuals who made great contributions to society (Woolfe et al., 2003).

2.2 Social Learning Theory

Social learning theory is the integration of cognitive and behavioral theories of learning blended with learning experiences that occur in reality. Fitzgerald (1991) mentioned that “Social Learning Theory” has changed the name as “Social Cognitive Theory”. It is able to change behavior. It links to health behavior. It has two important contributions as (1) informational and motivational role of reinforcement, and (2) Observation role of learning through modeling in imitating the other behavior. This model affects the perception of confidence in each individual as the ability to behave themselves specifically. However, the model must have similarity to the observer, like age, gender and the difficulties should be managed by determined effort not just care.

To provide the example of the possible occurrence behavior in particular situations determined by two variables (1) The reinforcement will be processed through behavior in question as a means of the subjectively-help probability (expectancy). (2) The value of reinforcers occurs to the subjects. Bandura (1997) also provided the diagram of self-efficacy concept, which has an emphasis on the influence of efficacy beliefs and outcome expectations on health behavior. As means of efficacy, it means self competence of an individual's perception to present the behavior required to influence outcome (Bandura and Walter, 1965; Bandura, 1997).

Social learning theory can be applied to individual's perception in order to change health behavior. If the reinforcement is enough, the expectation will occur to the target of behavior. However, inappropriate behavior of person might be shown from the positive reinforcement. It might derive from misunderstand in the people. Therefore, misunderstanding should be proved in the idea for health behavior change. The social learning is the environment for self-efficacy development for the people.

2.2.1 Stimulus Response Theory

Theories of stimulus response are presented in various behavior learning theories. For example, Operant condition theory, Pavlov's theory, Classical conditioning theory, Thordike's law of effect, and Bandura's social learning theory. These theories are viewed as S-R (Stimulus-Response) paradigm through the functional organisms.

Estes and Suppes (1959) and Syppes and Atkinson (1960) developed the basic stimulus-response theory. However, it is to be emphasized that the basic ideas or assumptions has not been modified. Also they provided six primitive concepts which are basically for this theory, and each can direct to psychological interpretation. The first one is the set S of stimuli, which is not empathy, but it can be either finite or infinite on all occasions. The second primitive concept is the set R of responses and the third primitive concept the set E of possible reinforcements. As in the case of the set of stimuli, we need not assume that either R or E is finite. The fourth primitive concept is that of a measure μ on the set of stimuli. In case the set S is finite, it often measures of S itself, is always finite, i.e., $\mu(S) < \infty$. The fifth primitive concept is the sample space X . Each element ∞ of the sample space shows a possibility of the experiment. That is, an infinite sequence of trials. In the present theory, each trial may be described by an ordered quintuple $\langle C, T, s, r, e \rangle$, where C acted as the conditioning function. T is the subset of stimuli showed in the organism on the given trial. As S is the sampled subset of T , r is the response made on the trial, and e is the reinforcement which usually occurs in that trial.

Stimulus affects the probability of responses in the events. The environment promotes the reinforcement of the human. If something is the power of drive for the positive reinforcement, the behavior can occur with initial thing. All the events, it can be applied to create the invention from the power of initial stimulation.

2.2.2 Social Cognitive Theory

Social cognitive theory (SCT) is applied in psychology, education, and communication, that the acquisition of individual's knowledge can be related to observing others as the context of social interactions as well as outside media influences experiences.

Bandura's (1986) other view is social cognitive theory contributes to a model of emergent interactive agency. Cognitive processes are emerged to brain activities that bring to determinative influence. Social cognitive theory refers to an individual's knowledge acquisition which directly relates to observing others within the social interactions, experiences and outside media influences. On the other hand, people cannot learn new behaviors solely by trying them and either succeeding or failing, but the humanize survive depends on the actions of others. In addition, Bandura (1989) presented that people learn from other people, by observation, imitation and modeling. "The theory has often been called a bridge between behaviorist and cognitive learning theories because it encompasses attention, memory and motivation."

The social-cognitive theory is a theory of learning based on observation. Social-cognitive theory is derived from several basic assumptions. The first assumption is observation which could lead to the learning. The new behaviors and knowledge could be obtained by observing a model. A model means as someone who shows behavior for the others. The second assumption views learning as an internal process, whether may or may not lead to a behavior. However, learning may not take place instantly. The third assumption focuses on goal-directed behavior. Social-cognitive theorists present that people have their own goals and direct their behavior later on. Therefore, they have the motivation in order to achieve those goals. Another assumption is that behavior becomes self-regulated. Social-cognitivists have the belief that people ultimately being regulated their own learning and behavior.

The final assumption is about reinforcement and punishment. Social-cognitivists believe that the indirect effects on learning and behavior derive from reinforcement and punishment.

Social Cognitive Theory consists of seven domains : 1) Reciprocal Determinism - this is the central concept of SCT. This refers to the dynamic and reciprocal interaction of person, environment and behavior, 2) Behavioral Capability - this refers to people's actual ability to behave through essential knowledge and skills. To have a success of performing behavior, a person has to know how to do it and what to do. Actually, people are able to learn from the situated learning consequences of their behavior affecting the environment in which they live, 3) Observational Learning - people must observe behavior of the others. They then imitate those actions, 4) Reinforcements - people will continue or discontinue their behavior based on the internal or external responses to the other behaviors, 5) Reinforcements - this can be self-initiated or in the environment and there might be positive or negative reinforcements, 6) Expectations- this connects to the anticipated consequences of a people's behavior. The expectations of outcomes can be health-related or not health-related. Mostly, expectations derive from schema, and 7) Self-efficacy which refers to the level of people's confidence in their abilities to succeed in performing a behavior. People's specific capabilities and other individual factors, and by environmental factors self-efficacy influenced people's specific capabilities and other individual factors, as well as by environmental factors (Bandura, 1989).

Significantly, many theories of behavior are applied in health promotion, but they cannot consider maintenance of behavior. However, they focus on initiating behavior. In fact, the true goals of behavioral theories applying in health education should emphasize both on maintenance of behavior and initiation of behavior. The goal of Social Cognitive Theory (SCT) is to explain how people manage their behavior through control and reinforcement in order to achieve goal-directed behavior.

2.2.3 Community-based approach

Community organizations have various kinds of structure. They work as nonprofit groups and operate with the volunteers of the community. In the developing countries, community based approach processes from bottom-up of the organization for

the effective operation in their communities. This part presents the example of community in order to view the context of community based approach.

Watson (2005) pointed that the definition of the community differs in each context. As in the context of systems of care, it is defined to the surrounding of the youth and families with family and friends, to neighbors and others within the control of agencies. With this controlling, the agencies must provide services and support. The concept of community within a system of care covers the issues of locality, service and connection as well as a "social bond characterized by a sense of mutuality, care, connection, and identity, awareness and obligation to others".

Meanwhile, Wenger (2008) and Bass and Ramasamy (2008) defined that the community based approach acknowledges the community as a unit of identity. The community is both the target and the change. This community focuses on the belief that humans live in, are shaped by the environment where they live. Consequently, individuals cannot be separated from their environment. Members of a community have to have a sense of community belonging, and sharing with the other members. Moreover, a community can be considered as a geographical location and a quality of human interaction.

The characteristic of community based approach identified the uniqueness of community. It presents the connection of individual in the social. Social bond is the main factor which leads to the development of community. Therefore, the promotion is sense of community belonging and sharing in the member. It can take the achieved goal of the community.

2.2.4 Case study in Bangladesh: the power of housewives to knowledge management in communities

Maternal instinct was used to manage poverty problem in Bangladesh. The success of the Grameen (which means village) Bank (GB), originally developed for the poor in Jobra village in Bangladesh, whose founder, the winner of 2006 Noble Peace Prize, is an economic Professor Yunus Muhammad. He believes in the power of

maternal instinct that females grasp all opportunities to make their babies well-being. He also thinks that female is the gender affecting more on children and family's quality of life. Consequently, they are capable of solving maternal and children problem for security since females work as effective caregivers in caring their children with security. His purpose is to help the poor stepping out of poverty. Since the start of the first bank in Jobra, the model of GB has developed in many countries. Grameen Bank was successful with the high turnover so that it launched its stocks five million katar to the commercial banks.

In 2005, Grameen Bank released the loan to 5.1 million household. It had 1,400 branches around the country. It covered 51,000 villages. It is, perhaps, worth nothing that in his biography, *Banker to the Poor* (Muhammad and Jolis, 2006), one of interesting parts is about his deep admiration to his parents, though poor, having a significant influence on him, in particular, helping for the poor. His mother before she became ill with the mental illness, and later his father, who had to look after the family and her for more than thirty years, have been a constant source of inspiration. Perhaps, it can be related to Ruddick's firm belief that mothering can be anyone provided that he/she attends to the need of the children and dedicates a substantial part of his/her life to the children. The traits of thinking for 'other' has been deep rooted in Professor Yunus in making Grameen Bank successful. Hrdy has also hypothesized that if the 'trait of the goodness has been sown in the right environment, the gene will pick up and the trait will survive.

At that time, most banks in Bangladesh discriminated against women, it was highly unlikely that they would be able to borrow money from the bank. It was less than 1 per cent of all the borrowers in Bangladesh put together were women. Women were socially, culturally, and economically discriminated. In his opinion, they are the poorest of the poor. However, he believes that women are better borrowers, because of their maternal instinct. On the contrary, there is a higher chance for a man to spend on himself once he has extra money. He tends to spend on himself.

However, women are likely to put their family first. Women will spend their income in order to sustain or improve their children and household. Grameen bank gradually recruits young women, mostly graduates, to work in the bank. It can be seen as a bank generating income for the better life of the poor, but through the responsibility and the disciplines of the women, whose lives had been limited if not for the options that Grameen bank offers. Grameen bank helps women having the problem of poverty become strong economically, socially and culturally. Much as the conflicts between the husbands (males) and the wives (females) grew, eventually, the power belongs to the wives - as through them the loan is possible, on the condition that the husband has to allow his wife to sign the contract of the house under her name. The physical and verbal abuse, and job deprivation towards women have decreased. Choices have been created for women. The success of GB in the Jobra village can be, perhaps, attributed to women whose responsibilities deriving from maternal instinct. The more responsibilities they have, the more attention they pay for their loved children. Also, they will do as much as they can to ensure that their family will have better lives. Discipline combined with thought and vision so, the traits of the women will be there.

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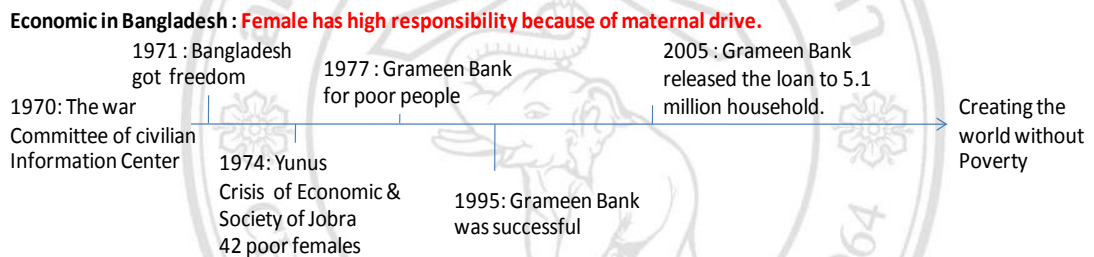
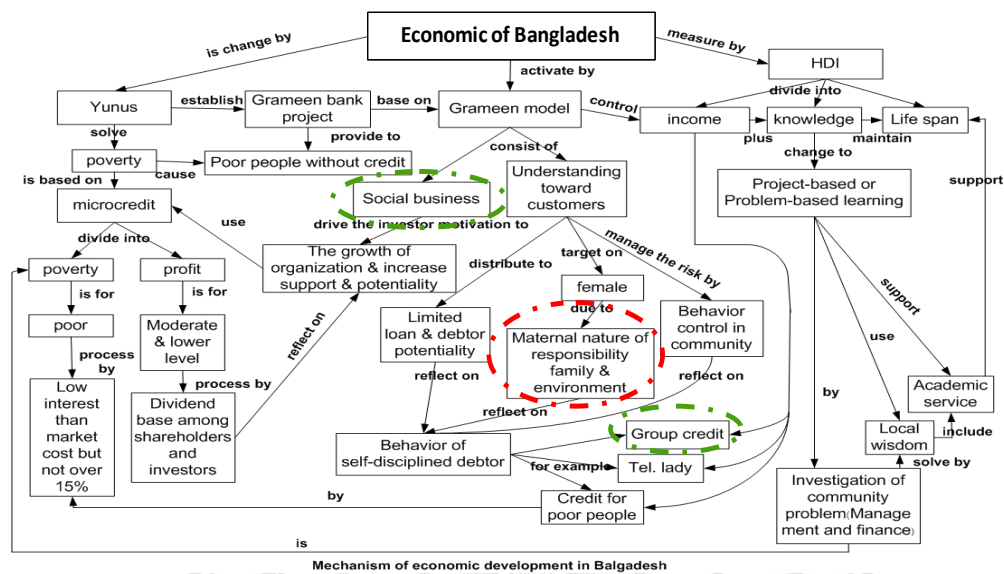


Figure 2.2 The power of maternal instinct for the poverty solution in Bangladesh

Figure 2.2 indicates maternal nature of responsibility on family and environment in microcredit. The social business manages the risk by behavior control in community. It is behavior of self-disciplined debtor in the lady group.

Grameen model differs from the other banks which offers authority to women asking for loan. It is the belief that women have potential to pay back. In Thailand, there is similar model as it. For example, village fund which shows that some community is not able to reach its goal because of inappropriate payment and materialism. So, the loan is not sufficient for the needs of loaners. It can be concluded that consuming the local resources for the highest benefit based on sufficiency economy is able to integrate into various village fund in the community such as woman fund or housewife fund, etc.

2.3 Addiction Behavior

Addiction behavior describes physical dependence on alcohol and other abusable substances. It leads to instinctive sense to someone who forced participating in a repetitive of behavior. It relieves a person with the responsibility of negative consequence in his/her behavior. Moreover, it simplifies life since it is able to provide the people with appealing, easing solution to daily living problems with responsibility. The alcohol drinking behavior is initiated from the cognition of alcohol consumers. Also, social norm drinking and social motive on alcohol consumption affect alcohol drinking behavior. Social norm drinking has descriptive norm (individual's perceived prevalence of alcohol consumption) and injunction norm (individual's perceived approved of drinking by their peer, social distal peers, social close peers). They are the key predictors on alcohol drinking behavior as well as, cognitive behavior therapy is significant for alcohol drinking behavior (Friedman et al., 2003).

Alcohol drinking behavior modification was studied by many researchers. Oei and Burrow (2000) expressed that alcohol modification researches usually have aimed in two cognitive constructions such as alcohol expectancy and drinking refusal self-efficacy in order to make understanding of alcohol usage and abuse. It is effective quantity of alcohol consumption. This behavior creates the complex result and displays on cognitive, behavioral, coping strategies, alcohol expectancies and motives of drinking. They could be designed the cognitive model of drinking. The result of the model probably reveals the positive feedback which increases the confidence and tension reduction. As the negative of effects are drinking motive and avoidant coping. Eberl et al. (2013) studied CBM (Cognitive bias modification). It was found that the intervention of CBM could change the maladaptively and neurocognitive processes in alcohol-dependent patients (alcohol addiction). They took the alcohol avoidance training course (refusal behavior). They were less relapsed at 1 year than the other patients. As the group of case study focuses on the treatment in adult with alcohol dependence. Mowbray et al. (2013) found that the key success of mechanism of alcohol modification was drinking goal setting and desired abstinence of person. They could understand the benefits and risks of alcohol drinking behavior because these two issues

are useful for the clinician to design the intervention and motivate in the alcohol-dependent patients (alcohol addiction). Therefore, we could pick up and apply the guideline of this alcohol modification such as the cognition and behavior of the drinkers. It led to understand the components as being goal setting together.

Dependence on alcohol is addiction behavior which affects the consequence of living problems and the reduction of responsibility in the person. Addiction behavior depends on the quantity of alcohol consumption. Over alcohol drinking behavior take the negative consequence, this behavior spread in the society. Even though cognitive model of drinking can change the maladaptively alcohol drinking behavior, the intervention designing should have the goal setting and desired abstinence of drinker in order to decrease alcohol drinking behavior.

2.3.1 Biological Construct

Biological construct is the process driven by psychological forces or genetic forces, which correlates to addictive behavior. The genetic or psychological forces are categorized into phenotype (gene-environment), and genotype (gene-gene). Then, these two forces associate with addictive behavior. Three [primary methods are presented as family studies, twin studies and adoption studies on addictive behavior (Friedman et al.,2003).

Biological construct is supported by two theories, which are the disease model and the abuse liability model. The disease model is the mean of addiction as a chronic, progressive, potentially-fatal disease characterized by a genetic predisposition, loss of control and persistence the harmful consequences. Moreover, it is the addiction to individual continues to present the addictive activities regardless of legal negative long-term, social and physical consequences. As the aspect of the abuse liability model, is a procedure in helping evaluate the abuse potential of various chemical compounds. It is a sign of growing physical and psychological dependence on substances and activities promoting chemical changes in brain, particularly increasing dopamine. Therefore, humans still work for low doses of alcohol (Kuregingkwaw, 2002).

Genetic and psychological correlate with addictive behavior. The change of chemical in the brain occurs in the person who depends on the substance. The studies found that the family, the twin and the adoption of the individual influence alcohol drinking behavior. Therefore, the part of the initial finding on alcohol drinking behavior can protect in the genetic and psychological of children from addictive behavior. The behavior of parents has an effect on the growing of dependence cases.

2.3.2 Psychological Construct

Psychological construction of addictive behavior brings to understand mind and behavior of the dependency and addiction. If a person lack of danger awareness from addiction, the addict may be more alcohol and drugs. Although many people have died from alcohol drinking behavior, they have social norm on drugs and alcohol in daily lives.

Corrigan et al. (1999) defined psychological Construct of Addictive Behavior as the three components of a person's psychological system which are described as 1) Ego (the conscious, realistically-directed, self-responsible), 2) Retained feeling residues of the infantile self and 3) Conscience which is derived from the moral values of parents (Berkowitz, 1964).

The moral of the parents is the structure of children's psychology'. The belief of parents can embed in the cognitive of children. The cognition transfers to their feeling and behavior. If the alcohol drinking behavior appears in the parents, the children learn through the stage of psychology. It derives from the model by observation and imitation. Therefore, the lift of the moral in parents is the important which avoid depending on substance from the children.

2.3.3 Sociology Construct

The culture and social class have an influence on the family coping patterns. Generally, paternalism has a characteristic of role as health care providers not only the

families but also the family with sick members, including to make decision on health care in many countries (Carey, 2001). As a result of it, an example of the family coping strategy is “gaining of information and knowledge”,but these families are not satisfied with it. However, social class variations still exist for family coping, for example, wealthy and educated families usually require more need to control and manage their own health care. “Poor families may also feel less confident in their ability to control their own destiny, and in these cases may use controlling the meaning of the problem by passive appraisal.” Therefore, they apply more the family coping strategies of “gaining information and knowledge”.

Easley and Epstein (1991) found that adult children of alcoholic parents who applied passive appraisal of the problem have an attempt to avoid blaming themselves. Likely, they have poorer adult functioning. Some research revealed that binge drinking by the member with alcohol dependency has more stress for the family than having steady drinking habits. Drugs addicts normally isolate themselves from others but, they may conspire in a group of drugs themselves or have impaired social skills. Those who are addicted to drugs often have relationships with other people as a specific way; they would need a lot of help from others, have most dependency. In families with addiction, other members will want to be helped and be responsible for the activities of addicts. If some members being spouses of addicts are responsible for the activities that the addicts do, this will result in the absence of addicts’s responsibilities. The relationship of the two parties in the proceeding shall be spared while other parties leave responsibilities, so this relationship is called “codependency” or “coreliance”. The condition is caused by fear, anger, despair and helplessness while the others need to control the behavior and problems of those who are addicted.

Codependent persons are someone who have codependent behavior. Most of the people who are responsible for caring for addicts or spouses need to be strong to support while the addicts are unconscious. It is said codependent acts like this because of compensation and hidden potential of their own incompetence. Moreover, they have their own belief that being responsible for what happened indicates honesty and loyalty.

Enabling behaviors such as mistake acceptance instead of drug addiction and protect them from the result of addiction is the reaction which serves the addiction not in the causes of addiction. These behaviors derive from the natural instinct of the family being together, are the compensation process of family duty deficiency and avoid broken homes (Friedman et al., 2003).

2.4 Maternal Instinct

Only a few of scholars conducted the study on maternal instinct and the researchers have usually been such as feminists, psychologists and anthropologists, etc. This part will elicit each of scholars who work on maternal instinct.

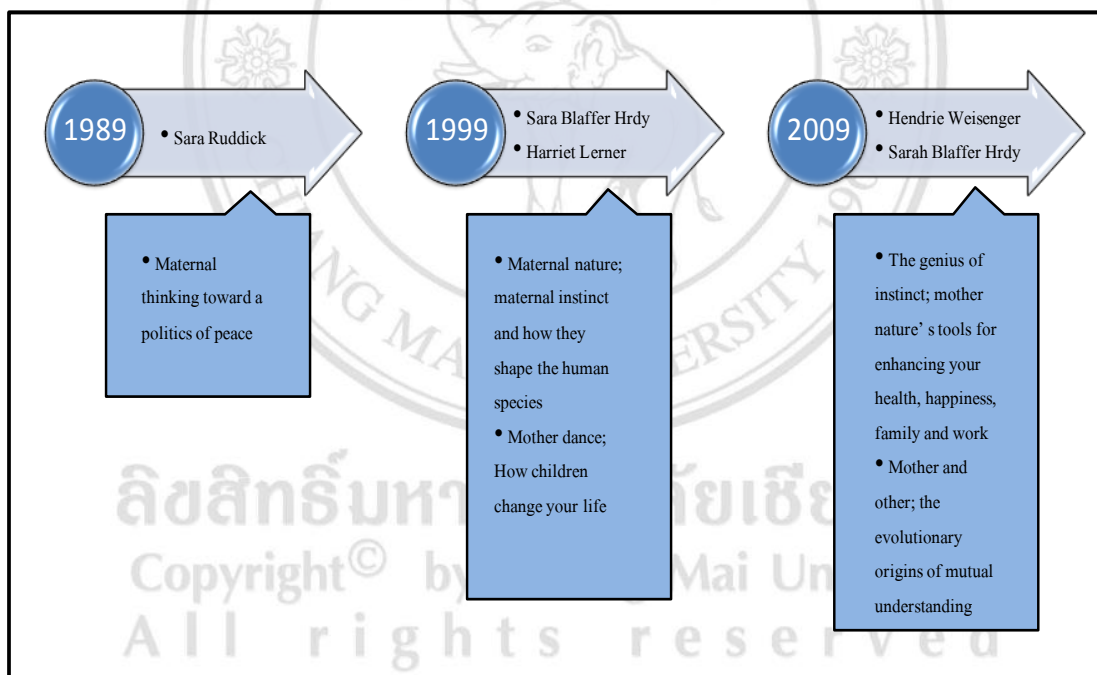


Figure 2.3 Histerotical Maternal Instinct Studies

Ruddick (1989) is the feminist philosopher. She studied primarily from female infants growing to the girls. Then, they will be developed to be womanly or maternal. A woman learns something about a woman from their environment with fears,

expectation, desires and ways about the mother work. When the woman has pregnancy, the level of estrogen hormone is higher. It increases oxytocin receptors in her brain. As a result, she will have the maternal behavior from them (Ruddick, 1989; Weisenger, 2009).

Moreover, the other studies conducted by Ruddick (1999) found that when the mothers have children, they will have more maternal thinking. Automatically, they have three duties as protecting, nurturing and training, particularly in their children. The drive of maternal instinct is from attention love which is cognitive capacity (Ruddick, 1989; Hrdy, 1999, 2009).

Hrdy (2009) mentioned about mothering. Mother and allomother are the key persons who act as supporters of reducing child mortality. The mother learns about maternal work, including allomother work together. Allomother is one of the families' members such as grandmothers, grandfathers and cousins. They help children to create well-being of grandchildren. Most importantly, grandmothers have to behave in three conditions. The first condition is they have freedom to take care of children. Secondly, they obtain the help from kins, so they will have the motivation. Third, they have some methods of helping to take care of children from younger kins. Additionally, Weinsenger (2009) emphasized the physiology of human. He conducted the study on the mechanism of maternal instinct. The maternal instinct is found more in females than males. Because of uterus which produces the oxytocin hormone, it directly relates to development of maternal instinct.

Maternal instinct is the internal motivation in the mammal. Similarly, thirsty and hungry are the basic needs in order to respond to the needs of body. When the women are pregnant, the oxytocin is reacted and increasing. It stimulates maternal instinct to protect their baby. Their maternal is gradually developed and cumulative the knowledge in the mothers. It knits with attention love by nurturing, protecting and training. Maternal instinct can be transferred from generation to generation. Their characteristics accord with agreeableness personality such as sympathy, altruism, brotherhood, caretaking, protection, cooperation, harmony and sacrifice. The quality of maternal

instinct leads to the peace of society. For this reason, maternal instinct is the effectiveness alternative. It should be selected to the driver of model creation for alcohol drinking behavior modification in rural community.

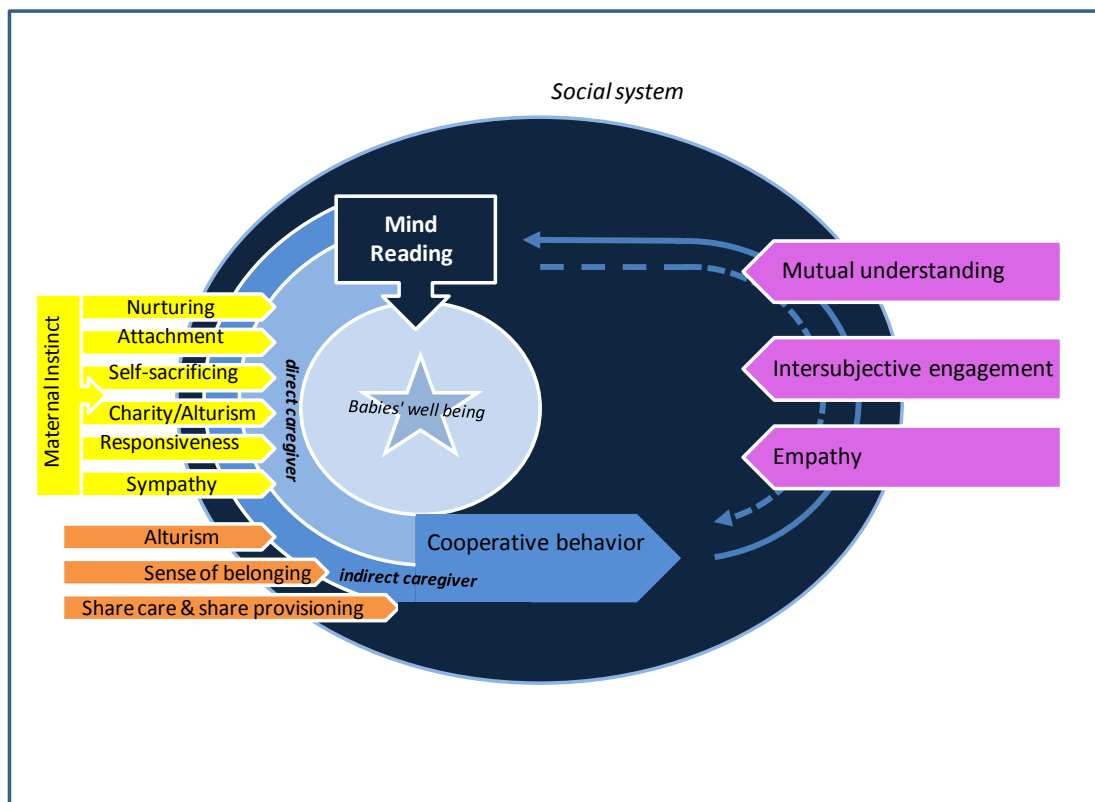


Figure 2.4 Maternal Instinct Characteristic

This figure identifies the characteristic of maternal instinct. Their functions work to the target group of children. Their mutual understanding of caretakers helps share care and share provision in community.

Knowledge (experiences) getting from training can be transferred from generation to generation. If the content of training is good, the villagers' quality of life among children will be good. If the environment cannot support to drive maternal instinct in working, children will have poor quality of life. Therefore, it affects the children development among the new generation in the future. The conclusion is to create the environment of the alcohol drinking modification. Therefore, the maternal

instinct can drive and enhance the good quality of life among children. However, the model of alcohol modification in community should be created for driving intrinsic among housewives to work functionally.

The mechanism goal of maternal instinct is children's well-being. Maternal or womanly is developed by the feeling of women. They learn something about themselves (Ruddick, 1989) until the women are pregnant. Therefore, the maternal behavior is stimulated because of the increase of estrogen hormone (Weisenger, 2009). Maternal behavior grows with maternal thinking and follow three tasks such as protecting, nurturing and training, particularly on children (Hrdy, 2009). In addition, parents and alloparents support maternal works (Ruddick, 1989; Hrdy, 2009).

2.5 Attention Learning Emotion

Attention is the cognitive capacity (Neisser, 1967; Trabasso et al., 1968; Norman, 1969; Wilhelm and Engle, 2005). It relates to the emotional of learning in the human. The people learn what dimension to attend to, and then people learn what the correspondence is from the features of that dimension. The capacity of cognition is the virtue of love in attention love of mothers. Attention love knit maternal instinct and act the task for the target goal.

The other meaning of attention was clarified that you need to pay more attention. Anything that disturbs your attention will turn to be a negative effect on observational learning (Neisser, 1967). Norman (1969) had the definition that Attention is defined as the cognitive and behavioral process of selective concentration on one aspect of the environment. Additionally, it refers to allocate processing resources.

The ideas underlying attention theories of discrimination learning were shown by Lashley and Krechevsky during the 1930's. Lashley (1938) expressed that Attention concepts have had a long and checkered career in psychology and it is known as a systematic concept for reconstructing mind. As the behavior, the attention describes a person's response. Moreover, it is one of the first mentalistic concepts to be rejected in the behaviorist revolution. It is as part of the homunculus, or inner-demon. As the view

of behavior; it can explain a person's response to complex stimulation by appealing to the operations of this inner homunculus (Trabasso et al., 1968).

2.5.1 Semantic factors model

Semantic map can help transfer meaningful learning. It is the knowledge construction with the high level of meaningful learning. It becomes more accepted and valued tool for knowledge integration, knowledge construction and assessment of knowledge. Importantly, it is suitable for learning improvement with model creation.

Semantic is known as a major branch of linguistics devoted to the study of meaning in language. In linguistics, the emphasis on the study of the semantic properties (features of characteristics) of natural languages. Basic to the study of semantics is the idea of the semantic relationship (for example, sense or "meaning" relations such as synonymy and antonymy). Words and their meanings are related to one another in a variety of ways. These relationships have words to describe them that often end in the bound morpheme-nym.

Semantic processing speed is the main key of semantic factors theory. It is used to measure highly overlearned responses from long-term memory store. This can be achieved by comparing performance on a simple discriminative task that involves a long-term memory component with performance on a task requiring virtually-identical sensory discrimination (and response demand) but does not require access to long-term memory (Strenberg, 2009).

2.6 Knowledge Management Techniques

Many scholars defined Knowledge Management in various meanings. Gamble and Blackwell (2001) stated that Knowledge Management is not linked only to technology, but also today's age of technology driven communication and information production. It is also only the tool in supporting knowledge management.

However, remembering that technology should be easy to use knowledge sharing infrastructure in organizations. Additionally, KM architecture, web-based applications, groupware, determining tools, mobile devices, worldwide access, high performance, user friendliness, a standardized structure, and easily administered controlling system are essential keys in sustaining knowledge infrastructure (Benbya, 2008).

2.6.1 Icebreaking (walk rally)

Icebreaking is as a tool for changing the behavior pattern in each event. The situation monitoring can be applied to design of activities to break the ice of people. The situation awareness can lead emotion of individual cognition. Additionally, the information can be shared with the others for learning together.

Rinne and Toropainen (1998) stated that an ice breaking activity is an effective tool starting a training session or running team-building. Because of interactive and fun sessions, this activity can be run before the main proceedings. As a result of it, people are able to know each other and serve the purposes of the event.

In case of well-designed and well-facilitated ice breaking activity, it can really be helpful to start the other serious session. Being a facilitator, the icebreaking activity should be simple, specified objectives, appropriate and comfortable for the participants.

An ice breaking is an activity, game, or event that is designed for welcoming and warming up participants in meeting, training class, team building session or other events.

Three main types of ice breakers are as follows: 1) Ice breaking is for fun. The participants themselves learn something about each other. Whenever they introduce themselves and start the conversation, they will enjoy and find value in the activity.

2) Ice breaking presents the topic of the training session or meeting. It also creates laughter and conversation with the concise and clear purposes of the topic. 3) Ice breaking is an activity created for the purposes.

2.6.2 Situated Learning

As situated learning, many scholars defined it as various meanings. The ideas of John Dewey in Progressivism appeared that, experience is important for learning and learning will occur when learners do by themselves. Experience of the learners is physical. Society can be formed by the interaction of participation among individuals with the physical world.

The other scholar is Roschelle, she mentioned that the experience can be shared (Roschelle, 1995). Key concepts in the curriculum and instruction have emphasis on individual development. It is the belief that the study is life and people must have lifelong learning. The emphasis is on learner-centered or focus of experience. Obviously, opportunities need to be provided for learners to learn according to their interests and their needs. However, the process of learning to solve problems (problem solving) should be taught and practised (learning by doing).

The idea of Vygotsky in Vygotsky's sociocultural theory presented differently from Dewey. While Dewey focused on experiences, Vygotsky emphasized on cultural development. Intellectual development needs to know and understand social conditions which individuals participate in that society. However, Vygotsky has the same view as Roschelle (1995) that learning can be measured from the ability in solving problems as the change of experience period.

Additionally, Vygotsky also describes experience Period=Zone of Proximal Development as the figure below;

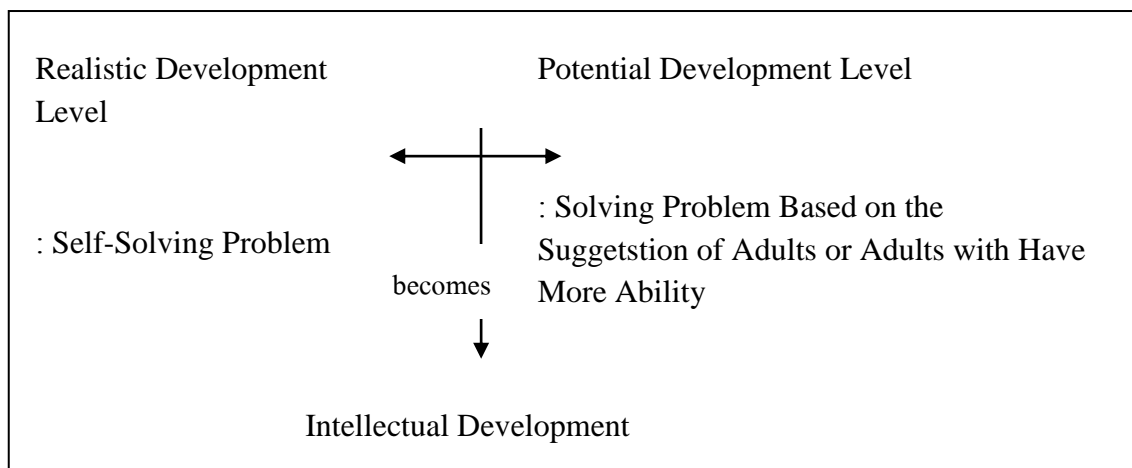


Figure 2.5 The Intellectual Development in Vygotsky's sociocultural theory

Phrombuasri (2002) explains Elements of Situated learning as follow;

- 1) Context of the actual conditions and events in real conditions: the tool enables students to integrate ideas and practices.
- 2) Reflection: Through circumstances at issue by the suggestions, problem of intellectualization, hypothesis formation, reasoning and testing.
- 3) Participation: as learning group, members have the opportunity to work together to solve common reflection in order to correct the incorrect concept to help. Importantly, the teachers are facilitators and advisor to have learning between learners and between learners and instructors.
- 4) Coaching and supportive care: a focus on coaching and transferring knowledge, exchanging data and ideas between learners and instructors. Coaching needs to be substantial, what we need to improve. Moreover, it should have to share responsibilities between the learners and the instructors to provide some continuity. Additionally, the learners are recognized for their capabilities.

- 5) Continually clear Reaction: learners obtain acquisition of knowledge, they can show the teachers and the learners themselves to understanding orally, or learn what they have learned.

It can be concluded that situated learning consists of learners and teachers focusing on the learner-centered. Learners need to do with themselves and practice. The learners construct knowledge by interacting in society. They learn with a real context, and they learn a variety of learning resources. The teachers select scenarios for learners. Moreover, the teachers are as facilitators, and advisors in helping, supporting and being models.

The other view of Young (1993), he stated the Situated Learning. Teaching Design bases on the concept of Situated learning is defined as (1) Selecting situations or circumstances that result in the learners to construct knowledge scenario should be substantial, complex with various problems. Importantly, the teachers provide the learners with a situation. (2) Being as facilitators and: Teachers need to plan the learners to find out what the context of it about and provide time for them to find information. (3) Supporting teachers to have the ability to motivate learners to achieve learning: by finding resources, assessing the progress of students, interaction with learners (The students learn by the students themselves), encouraging students to analyze various changes of environment, and to show action leading to learning. (4) Setting roles, nature and assessment situated learning: technology may help allow students to see the situation from the media and suggest solutions or set the situation as a problem, then learners solve it (Young, 1993).

Many researches are done on Situated Learning. Griffin (1995) stated that the skills of the students based on the comparison of mapping skills as the concept of situated learning has been found that students learned with the basis of situated learning had the better skills in reading than traditional teaching. Plernta Prombuasri (2002) conducted the research on the second year Nursing students, it showed that the nursing students who were taught situated learning had the higher scores in the attitude in nursing, particularly in the interaction with others.

2.6.3 Health Education

Health education is a process of assisting in decisions-making on matters having effects on individual, community health. It is defined as the blend of ecological and educational supports for action and conditions of living conducive to wellness. It is able to change voluntary behaviors of people and its task is to adjust behavior and to develop health status. It has numerous key elements of the process. Three components are included as health promotion, exploit the teaching and learning, learners maintain voluntary control over the decision to induce alterations in their actions, and health promotion also emphasizes the behavioral modification as well as improve health status.

Moreover, Health education develops health knowledge, skills, attitude, environment conditions through the application of theory/model (health belief model). It is also operated by two theories; Behavioral Theory and Social Learning Theory which are applied to create the health belief model. That is the model which stimulates behavior change. Additionally, it assists individual empowerment and social and then, it promotes health in community, political actions and quality of life.

2.6.4 Counseling technique

Counselling is one of the helping approaches to focus on the emotional and intellectual experience, feeling and solution of clients. Actually, many scholars define the counseling technique as various meanings.

Pongsopa and Pongsopa (2013) referred Counseling is the key factor of counseling service. Therefore, the first understanding is in the definition. This understanding can help the people working on counseling work rightly and achieving their goals. Normally, counselors' work is not limited to only the definition of counselors, but also sense and attitude of the counselors. The counselors themselves have the vision of human value. With this vision, they will have the sense of counselors and seek for the appropriate suggestion. As a result, the counselors have the belief in the goals and process of counseling service with the different opinions. These opinions lead

to the difference in defining. Summarizingly, the definition of counseling is not exactly unity, but it varies on the view, thought and experiences.

The well-known scholars defined various meanings of “counseling” and these definitions have acquired from view, philosophy of expert counselors as well as the length of time in obtaining experiences. Good C.V. (1945), wrote education dictionary, defines “counseling” as assisting individual for aspect of personal problems, education problems, and career problems. All the fact of the problems will be discussed, and analyzed. Then, the solution will be found. Due to the fact information, clients Moreover, counselors have to interview individually for the information of school sources and society , so that clients are able to make decision by themselves.

Moreover, Carl R. Rogers (1951), a well-known counselor in United States, states the definition as the relationship between counselors and clients. The counseling will be effective if they concern more on self centers of personality characteristics clearly. This can help clients understand themselves to the proper ways than follow the new gaining experiences. Additionally, Wrenn (1951) mentions that the counseling is the dynamic relationship and has the purposes between two persons, which the process will be varied for counseling. It is also the cooperation between counselors and clients. Its benefit is to stimulate clients having self clarification and self determination.

The definition which belongs to Brammer&Shostrom (1952) state that counseling is the relationship between two persons; one is practised and help the other to change themselves or their environment. Additionally, some scholars emphasize the meaning of counseling as the relationship process. Gustard (1953) define clearly that counseling is as the process of learning new things normally in each individual as in social. Most importantly, the counselors must have careers in psychology field since they can explore the solution in helping clients. To do this can offer the chance to learn and understand how to see the world clearly. As a result of it, clients will be happier and become the valuable people in the society.

Pepinsky and Pepinsky (1954) stated the counseling as follows; (1) Diagnose and treatment in abnormal adjustment of clients. (2) Relationship creating. This needs to

occur when having face-to-face counseling between counselors and clients. Supportingly, Tyler (1969) gave the definition which many people usually refer to. Counseling is the process of helping clients. Then, they are able to use their abilities and qualifications they have to manage their own lives, such as making decisions by themselves, and knowing how to solve their emotional conflicts. In addition, Patterson (1973) said that counseling is the process on relation between two persons or more and the counselors apply the knowledge from psychology and personality theories to help clients to have good mind.

English and English (1963) and Steffler (1968) defined counseling as the relationship which counselors help clients understand themselves and can solve their own problems with efficacy. Moreover, they have to adjust themselves better. The service needs to cover education, career and personal society issues. Sometimes, it might associate with the other people. Importantly, counselors need to be able to help clients see their situation at that time with the clear pictures. Therefore, both parties can seek for the efficient solutions.

Presently, the definition of it can be seen as helping clients select and answer their own questions that what they need to do for their lives. However, creating interaction between counselors and clients, which reflects to the different meaning of counseling. Some counselors focus on the close relationship between counselors and clients. At the same time, the other counselors might pay more on the process clients starting change.

The good relationship in counseling leads to the effective solution for the clients. They need understanding and appropriate solution for their problems by themselves. The counselors have the duty to help in order to discuss and analyze on the factual information. It is rather difficult to understand the thought of the person. Therefore, the point of the problem clearly takes the effectiveness determination. In this study, counseling can be used in alcohol drinking behavior modification. Moreover, the process of counseling helps the health workers understand and advise the solution for

their village' members. Counseling is an alternative to the decrease of alcohol drinking behavior.

2.6.5 Life Skill development

Life skills are behaviors used to manage personal affairs. They are human skills which are acquired by teaching or direct experience for managing problems and questions humans face in their daily lives. However, the concept of Yongyut (1996) changed the concept of WHO to suit Thailand by adding one pair, is a Self-Esteem and Social Responsibility. A total pair is 12 elements with 6 pairs (Ministry of Public Health, Department of Mental Health, 1998). WHO (1994) defined the life skills as the ability of individuals to act or deal with the demand, and challenges of everyday life successfully. Then, they can adapt themselves and have desirable behavior.

Moreover, WHO (1994) expressed that there are twelve core life skills as follows:

- 1) Decision Making means the ability to classify problems, causes of problems for an alternative, analysis of the pros and cons of each alternative, evaluate alternatives and decide the appropriate solutions.
- 2) Problem Solving means being able to solve problems, which cause stress both physically and mentally. It is also a process that requires knowledge to consider, observe phenomena and the structure of the problems, including the need for cognitive to achieve the desired destinations.
- 3) Creative Thinking refers to the ability to think widely without any attachment to the frame. It supports decision-making and problem solving. Moreover, it is the ability to adapt to the experience of everyday life properly.
- 4) Critical Thinking conveys as the ability to digest the information, problems and situations around them serving the direct purposes. Moreover, it is also a way to think scientifically and efficiently before deciding whether to believe it or not, before deciding what to do or not do. Critical thinking is

essential to the decision. If a person has the ability to think critically, it is an idea that has been refined as well. When facing a situation on decision to believe or not believe, to do or not do anything, it can be brought into reasonable conclusions correctly.

- 5) Effective Communication refers to the ability to use speech and body language showing their own wills. It must be appropriate to the culture and circumstances. Moreover, it is the ability to comment on the desire to deny the request to alert help.
- 6) Interpersonal Relationship means the ability to interact with others appropriately, which will lead to coexistence in society peacefully. It can help individuals interact with each other and is able to maintain a good relationship, which is essential to living together in society peacefully. This also includes maintaining good relationships with family members being an important source of social support .
- 7) Self Awareness is the ability to search and understand the fine points of their own weaknesses: what they desire and undesirable. The people have to understand the differences of the other party, whether in terms of the religion, color, sex, age, education, local health and so can fall under many pressures in life.
- 8) Empathy is the ability to understand the feelings and sympathies that are different from us. Although we are not familiar, this will help us understand and accept the differences of others, cause of social relationships, such as differences of race, culture, especially persons with mental disabilities or a person who is not accepted by society.
- 9) Coping with Emotion refers to the ability to control emotions. Knowing how to understand the emotions of others. They know how to handle emotions, emotional literacy that affects their behavior including alternative ways to handle emotions appropriately. The adolescents who are aware of the emotional state, art and emotion to control behavior appropriately and to help them adapt and succeed in that aim.

- 10) Coping with Stress is the ability to know the causes of stress, learn how to control the level of stress, know how to relax, and avoid causing and deviant behavior in a desirable way.
- 11) Self Esteem means to feel that they have value, such as kindness to friends and acquaintances, discover the proud capabilities (social, sports, music, art, etc.) in their main aim without focusing on the appearance or talent, sex appeal, etc.
- 12) Social Responsibility means to feel that they are part of the sustenance of society, have closely associated with self-esteem. If we are proud of it, they also have an incentive to do good to others and society.

Department of Mental Health (1997) mentioned that the life skills are the ability of the social thinking efforts to increase interaction with others and their environment to be successful. It can be resolved in a crisis causing behavioral problems as well as the ability to promote health and communities.

2.6.6 Knowledge representation

2.6.6.1 Constant Comparison

Constant comparison is the method to compare the data of the events. It can be categorized into the relation of 6 phenomena in order to find the new relationship in the study. They consists of who, what, where, why and how in the questions. It shows in the Table 2.2.

Table 2.2 The data collection of 6 parts relationship of phenomena.

Type of data / The type of events	What (Behavior)	What and How (Activities)	Why (Meaning)	Who (Participation)	How (Relationship)	Where (Environment)
1.....						
2.....						
3.....						

Glaser and Strauss (1967) mentioned, the conclusion has 4 steps: incidents, properties, expand the comparable and create the conclusion.

- 1) Incidents: It is a data collection by notetaking in the field and categories in the code in order to compare the events and conclusion.
- 2) Properties: The data is related and grouped as in the similar incidents. Then, the framework is briefly designed for the conclusion.
- 3) Expand the comparable: The milestones are identified to sharpen until the data is derived the saturation.
- 4) Create the conclusion: The results of this step are the temporary assumption for verifying and confirming the conclusion. They report the findings in the study.

Mills (1959) mentioned about the qualitative researchers. The incidents are different and incompatible in the groups, sometimes is meaningful. They are beneficial and can predict the key points for the assumption answers.

Holsti (1969) proposed about content analysis, it consists of three features, systematic messages, physical conditions and the theoretical framework. The content analysis is categorized into 6 items for description, 1) Source/Sender, 2) Encoding Process, 3) Message, 4) Channel of Transmission, 5) Detector and 6) Decoding Process. However, the step of content analysis related to the study of Juntawanich, which mentions five principles of content analysis for the qualitative researchers. 1) Using the

theory and creating a framework for analysis 2) Data verifying 3) Notetaking and indexing 4) Memo taking and data reduction 5) Drawing and verifying conclusion

1) Using the theory and creating a framework for analysis

This step has three phases: before data collection, during data collection and the conclusion creation. They can be formed in the theoretical framework from the relation of phenomena. The framework leads the direction of study and unique concept by the researcher. The characteristics of the theoretical framework are creation and conclusion with generative theory or substantive theory. They are the substantiality and directly related to research problems, for examples, community analysis, social network and structural-functional theory. They explained the behavior and dynamic of persons and communities' relationship.

2) Data verifying

The data verifying induces the reliability, completeness and quality of data. The reliability can be described ethnography which life history and structural social. It views physical environment, society and culture in every particular. Besides, triangulation is the method for data verifying. It might be methodological triangulation which is changed by the individual, time and places. However, data triangulation is not the truth. The completeness and quality of data hold the research questions. It is derived from the questionnaires and interviews from the opinion and descriptive data.

3) Notetaking and indexing

Indexing or coding is classified three types, 1) descriptive index, 2) Interpretive index and 3) explanatory index. It starts with the words writing from the theoretical framework. Then, the words are related and coded for the definition of the index. They are the account of index for the field study.

4) Memo taking and data reduction

Memo taking is the step of the relation finding from the account of index. The researcher can write the statement and expanded the index in addition of the data. The data can be reduced to the research questions directly.

5) Drawing and verifying conclusion

The step acquires the quality of data. They show the relationship, the theoretical framework, the unique of analysis. The final task is the proving of the conclusion.

2.6.6.2 The knowledge model with knowledge management

The artificial intelligence emphasizing on designing computer representations that capture information and can be applied for solving complex problems, is known as knowledge-representation. The conventional procedural code seems not to be the best formalism to use to solve complex problem as the justification for knowledge representation. The benefit of the knowledge representation is to make complex software easily used to define and maintain than procedural code. Moreover, it can be applied in expert systems. For example, it will be more practical if talking to experts as the businesslike rules.

The knowledge management model basically acquires knowledge engineering methodology. Purposively, the knowledge model is a tool in helping to clarify the structure of a knowledge-intensive information-processing task. As being part of the analysis process, this model needs to be developed because of the similar structure of traditional analysis models in software engineering. The reasoning task is a task presented as a hierarchical decomposition of functions or processes. In addition, the data and knowledge types that are operated can be described through a schema similar to a data model or object model.

Three parts, each capturing a related group of knowledge structures are related to this model: 1) Domain knowledge being as domain specific knowledge and information types in an application. For example, the medical diagnosis would have definitions to relevant diseases, symptoms and tests, including relationships between these types. A domain knowledge description is being compared to a data model or object model in software engineering. 2) Inference knowledge is as the basic inference steps to implement in the domain knowledge. Inferences are as the building blocks of the reasoning machine and represent software engineering terms as in the lowest level

of functional decomposition. A sample of inferences in a medical diagnosis application was linked to symptoms with a possible diseases. The verification will be done based on inference identifying tests to confirm a certain disease. 3) Task knowledge shows the goals of an application and a subtask decomposition and ultimate inferences as well as a description of the dynamic behavior of task. For example, a simple medical diagnosis application could be diagnosed as its top-level task. Then, it is defined through the hypothesize and inferences verification. Task knowledge is like the higher levels of functional decomposition in software engineering. In contrast, it includes the control over the involving functions.

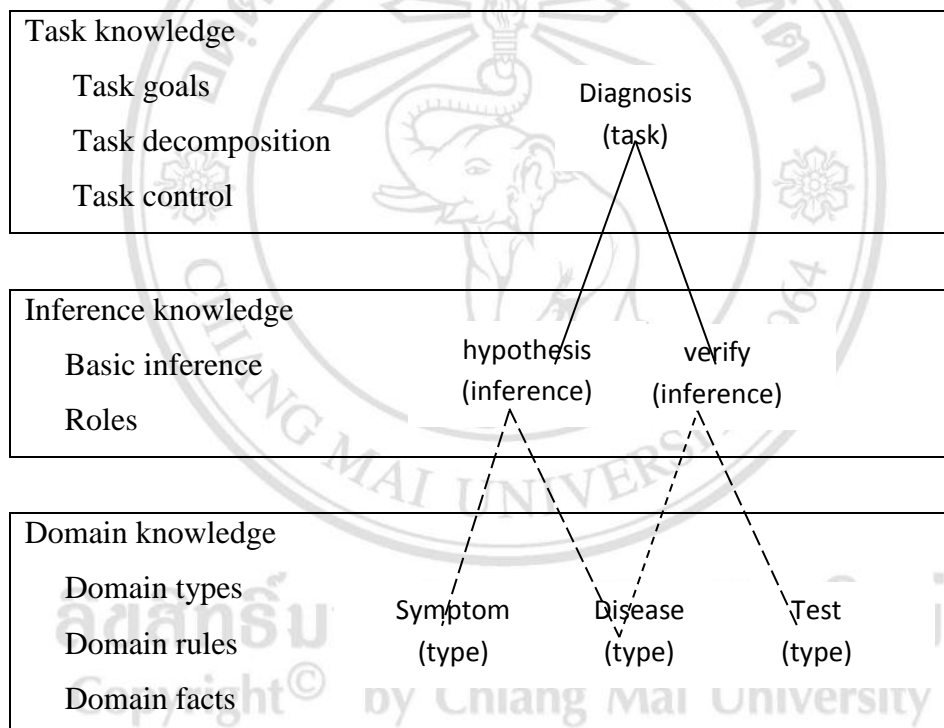


Figure 2.6 Presents the overview of knowledge categories in the knowledge model. On the right, knowledge elements in a medical diagnosis domain are the examples (Schreiber, et al., 2000).

Above figure gives a brief overview of the three knowledge categories, as well as some sample knowledge elements in each category. Three categories are followed as:

1) Domain knowledge

The domain knowledge describes the main static information and knowledge objects in an application domain. A domain-knowledge description has two types: one or more domain schemas and one or more knowledge bases. 1) A domain schema is known as information through a number of type definitions and a schematic of the domain-specific knowledge. 2) A knowledge base comprises of the samples of the specified types in a domain schema. It contains knowledge such as rules.

2) Inference knowledge

The inference knowledge describes the usage of static structures for a reasoning process. The main part of the inference knowledge are the knowledge roles, the inference and transfer functions. The inference knowledge in the knowledge model present as in the functional decomposition with lowest level and this is called as inference in knowledge modelling. An inference uses knowledge in some knowledge to lead to the new information from its dynamic input.

3) Task knowledge

Task knowledge is as the knowledge category to describe the goal and the strategies for realizing goals. It is described in a hierarchical fasion: small tasks can be separated into smaller tasks. The tasks are linked to inferences and transfer functions at the lowest level of task decomposition.

The expert systems with tasks, inferences and domains are derived from the artificial intelligence of this study. Additionally, the knowledge structure creation becomes the knowledge model for learning organizations. As a result, the knowledge categories are used in building blocks for exploring and representing the reasons.

2.6.6.3 Systems thinking

The systems thinking appeared in the fifth discipline: the art and practice of the learning organization (Senge, 1990), strategies and tools for building a learning organization (Senge et al., 1995), the dance of change: the challenges to sustaining momentum in learning organizations (Senge et al., 1999) and schools that learn (Senge et al., 2012)

Various professors defined the definitions of systems thinking , the systems thinking is the tools, method and the process principle for the modeling. To have changes in the organizations, it needs to strict with the certain common principle as in the behavior of all systems. The systems thinking is one way to show the elements of story by the pictures. They are displayed in the circle loop comprised the cause and effects in the system dynamics. Peter Senge's work also applied the systems theory into his work. The Fifth Discipline provides a good basic usage of such theory and the way which it can be implemented with other theoretical devices for completing organizational questions and issues. Systemic thinking is the conceptual cornerstone ('The Fifth Discipline') which the discipline integrates the others, and put the theory into practice. The uniqueness of systems theory's ability is to comprehend and address the whole. Moreover, it can examine the interrelationship between the providing parts. Therefore, the incentive and the means are showed as the disciplines (Senge et al., 1995).

Peter Senge stated that "real learning gets to the heart of what it is to be human." Humans are able to re-create themselves. Then, this can be applied to both individuals and organizations. Thus, a learning organization it is not enough for surviving, "survival learning" or "adaptive learning" play an important role and necessary. However, a learning organization or "adaptive learning" must be integrated by generative learning that supports our capacity to create' (Senge, 1990).

The mastery of certain basic disciplines or component technologies is the dimension that distinguishes learning from more traditional organizations . The five disciplines that Peter Senge identifies can convert to innovate learning organizations.

These disciplines are personal mastery, mental models, building shared vision, team learning and systems thinking. The systems thinking are one of the component technologies or disciplines. A discipline is viewed by Peter Senge with a series of principles and practices, integrate and master into our lives. The five disciplines can be approached at one of three levels: 1) Practices: what you do. 2) Principles: guiding ideas and insights. 3) Essences: the state of being with high levels of mastery in the discipline (Senge 1990). A vital dimension is provided in each discipline. Importantly, each has the necessity to the others if organizations learn about these.

This study aims to create the semantic factors on alcohol drinking behavior modification. The presentation of the systemic thinking leads to the overview of the knowledge which is elicited from the experts. The modeling is also created to communicate with language interrelationship in the knowledge workers. It is useful and easy to understand. The project manager can be used it to conduct the systems for learning organizations. Therefore, the systems thinking is selected to apply in the tools in the process of this study. The current situations of alcohol drinking behavior modification are clearly present.



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2.7 Conceptual Framework (Come up with proposition)

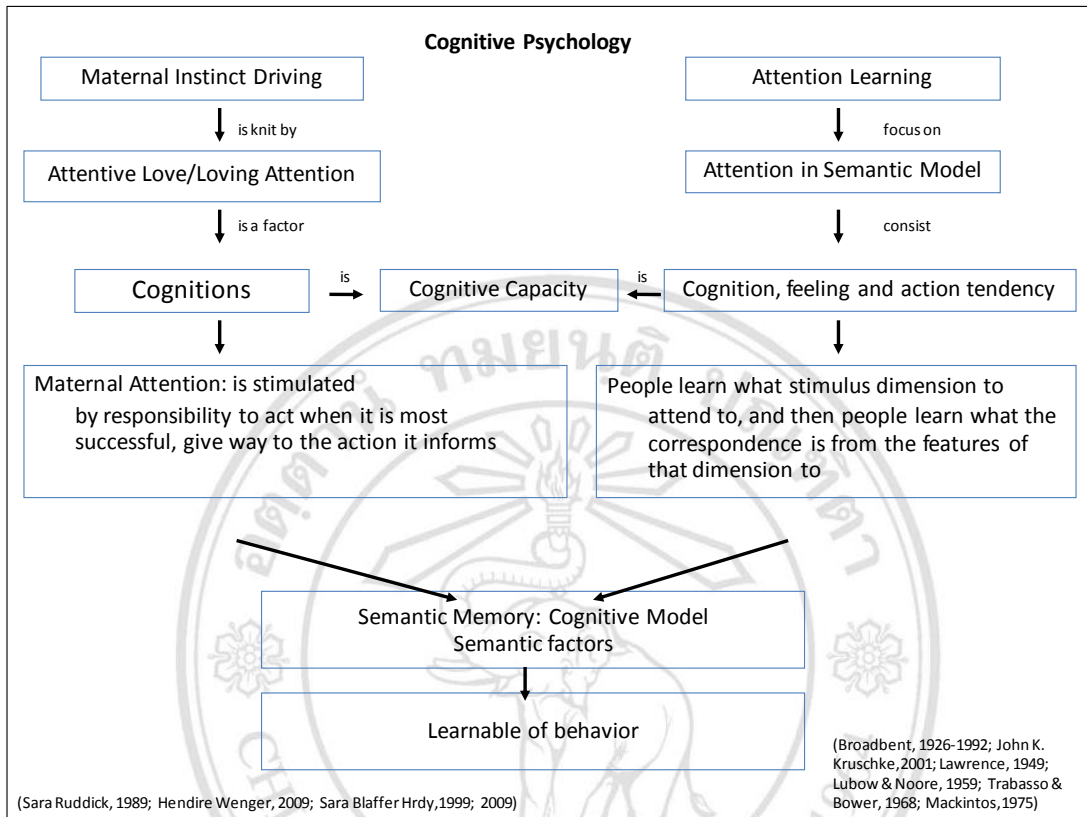


Figure 2.7 Conceptual Framework of Cognitive Capacity with Attention Drawing

2.7.1 Maternal Instinct Driving

The maternal drive or instinct refers to the tendency for the female performing the maternal behavior of feeding, sheltering, nesting and protecting their offspring. As this instinct is the basis of this study and it is essential to study in-depth under this topic.

Yunus and Jolis (2007) revealed that women are the key driver to care their families in many developing countries. The study also found that women and mothers acted as the primary caregivers. Moreover, they performed work with effectiveness on health promotion for social action. It can be processed under 5 methods; 1) empowerment support , 2) initial individual action 3) motivation for action, 4)

empowerment program, and 5) institutionalization and replication (Kar et al., 1999). Besides, the study of Kawachi et al. (1999) proposed that the experience of women has an influence on the potential of morbidity and mortality in health promotion because health and well-being relied on participation, learning and action meeting with government community health workers, self-help group in organizations and experiences associated with space and time of women. It could be concluded that the power of decision-making is on women (Nair et al., 2012). As a result, it has effects on strengthening the sense of belonging among people to a particular community, decreasing barriers to health services, quality of caring, provisioning safe places for social interaction, empowering on community's health. In contrast, housewives and working mothers who take the responsibilities in health care may be in the poor family because they were less educated, lacked employment and had financial problems (Rostad et al., 2006). The mothers employed more bargaining power with their children on the better nutrition in rural community as well as social and marital factors influencing urban women's health. The social factor included resources and access of social network, and social power. On the other hand, the marital factors are as polygenic and illness. To summarize, the women had the power and potential. In case of having the opportunity, they had to manage the honesty and overcome problems.

2.7.2 Maternal Instinct drives semantic factors in Maternal Instinct

The knowledge effectiveness can be created in an internal motivation on semantic factors. Maternal instinct can be drive in the maternal thinking of mothers and Maternal instinct semantic factor model is the knowledge representation to transfer the knowledge for users.

Hrdy (2011) presented the key to success of Maternal Instinct as in the concept of it. This concept had the success because it is derived from the theory of social learning by Bandura (Iamsupasit,1998). This theory started from the antecedent influenced cognition and feeling. Then, it motivated behavior and then linked to the consequences. The example of the antecedent is all five sensory perceptions of babies

were aroused when they were born. Moreover, these perceptions also drive Maternal Instinct among males, and females in order to percept the previous experiences and direct experiences. In addition, all actions were able to stimulate the feeling of caring, nurturing and protection. Eight elements which are proximity, frequency, duration, close relation, harmony, intensity, rhythm as well as a situation (Hrdy,2011). As the data in the past, it was found that the instinct of the mother could motivate and succeed in working for women and children because Maternal Instinct could drive force as well as protect childhood for surviving. As a result, an effective solution is the Attention of Maternal Instinct (Ruddick, 1989; Muhammad and Allen, 2006; Weisinger, 2009; Hrdy, 2011).

2.7.3 Attention Learning on Behavior Modification

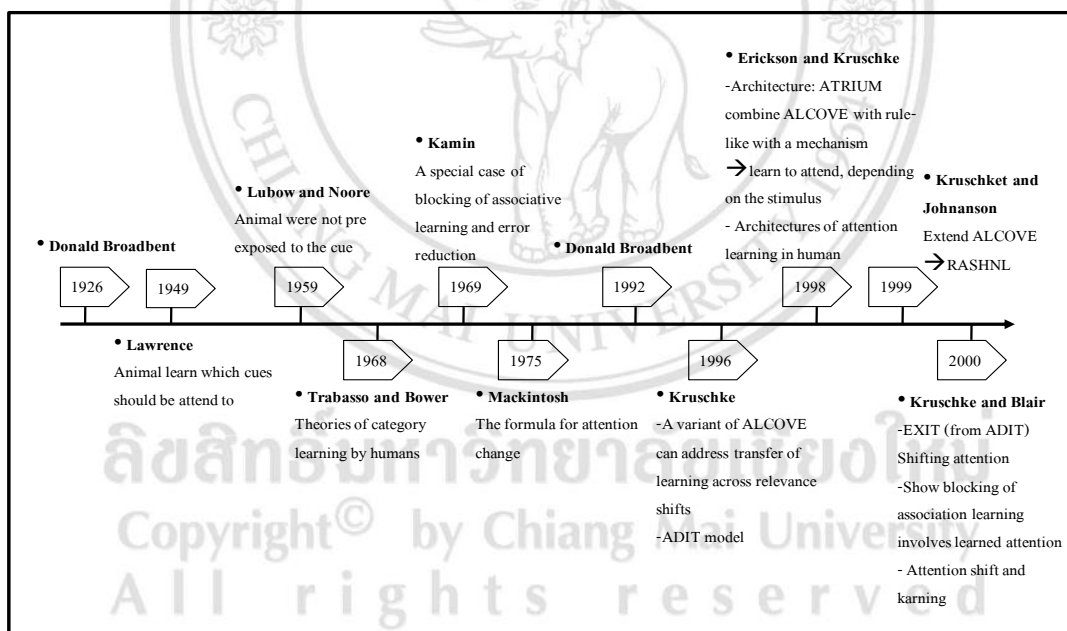


Figure 2.8 Historical Attention Learning on Behavior Modification

This case, Attention is conveyed as an automatic processing. It includes Cognition, Feeling and Action Tendency (Eagly and Chaiken cited in Gilbert et al., 1998) for nurturing their children with alcohol drinking behavior learning.

As maternal instinct driving, attention drives the cognitive capacity. It is namely attentive love or loving attention. The tasks are going on all the time and everyday opportunity as cumulative results. They are individual knowledge and they conceal in maternal thinking. These actions may refer to the pain, desire and project along with children's well-being goal. This opportunity would link between mothers and children and it is also the discipline of loving and attachment. Maternal attention would be motivated by the responsibility to perform actions. It brought to the maternal work training and could transfer to the patients and others since the cognitive of mother was an empathy capacity which was derived from the experiences of mothers (Ruddick, 1989). Likewise, Strenberg (2009) studied on the characteristic of attention which become automatic processes. The process are as: (1) concealing from consciousness, (2) being unintentional, and (3) few attentional resources consumption. They performed in three roles. Additionally, the other research study belonging to Beebe et al. (2010), they revealed the results of attention learning studying from chronic sleep restrictions in adolescents and grade five students (Liu et al., 2012). Moreover, they showed the attention to the comprehension test and learning efficiency. In conclusion, the attention was applied in the several studies but it has never shown on alcohol drinking behavior modification. In this study, the interest is to maintain the attention in maternal instinct and create the explicit knowledge of health workers' learning.

2.7.4 Semantics Factors Pattern of Attention; Stimulate Maternal Instinct

Attention is an implicit knowledge (Nilmanat, 2011) which is difficult to explain. Therefore, Semantic Factors Model creation is possible to show Maternal Instinct stimulation, knowledge management from successful cases on alcohol drinking behavior modification as well as relation of cause and effect. The other example is in Dual model. They implemented semantic integration for the data description construction (Moner et al., 2006). This is compatible with the study of Roger et al. (2006) who created Clinical e-Science Framework (CLEF) based on semantic network for ontology of clinical knowledge organization. Additionally, Virtual Communities of Practice model (VCoPs) in a health sectors model that (Alali and Salim, 2011) could be

represented success of practitioner experts' interaction through information and communication technologies.

The behavior could be learned by the sensation of human. They are verbal and non-verbal through as well as an effect on the brain's memory. The brain increases an ability to record memory easily by similar words because of the semantic. The semantic is defined as the study in the various fields such as psychology, linguistics, cognitive science and artificial intelligence (Pirro, 2009) for example, psychology; the semantic structure of category explores in the patients such as schizophrenia, dementia and alzheimer patients etc. For schizophrenia people, the research conducted by Sumiyoshi et al. (2001), they stated that the deficit of semantic structure is found in common. The testing of the maternal instinct was changed; therefore, it was in contrast with the truth. It worked with the basis of the left posterior fusiform gyrus. In addition, Devlin and Gonnerman's computational account applied it for predicting the semantic memory models (Merck et al., 2013). Moreover, as the cognitive science, the semantic information could be applied in the work of alcohol consumption. It could be created by the conceptual antecedent of drinking behavior relating to the cognitive model of substance abuse such as negative feedback and cognition of alcohol use (Austin and Smith, 2008). Nevertheless, the similar semantic metric combining feature may be designed the model based on the concept of words, ontology structure and evaluated the metric. Therefore, the effects of words could be predicted and shared the similarity of words. It usually occurs as giving in the context, which is similar to and related to words (Pirro, 2009) in order to create the actual activities for solutions. Moreover, Austin and Steele (2001) designed activities by transferring of idea, information and opinion. They developed the concept to design the team member activities. It also led to the map in designing framework by phase and activity model. It could be analyzed and captured from the various teams to design. Additionally, the conceptual design phase includes design disciplines, graphic design employed with symbols, as well as material resource. The concept could be asked for the personal, social and technological patent. Then, the data were gathered by problem solving and activity theory framework (Tan and Melles, 2010). In this study, the semantic factors model will

be applied to demonstrate the design of activities based on maternal instinct by attention in order to adjust alcohol drinking behavior in rural communities.

Table 2.3 The critical review of problems and solutions for alcohol drinking behavior modification

Critical Review	Concepts/Theories/ Tools and Techniques		Reasons
	Old	Recent	
1.Problems	1.1 Addiction Behavior	-Social Learning Theory	-Can explain better on the relation of alcohol drinking behavior causing the imitation of behavior wrongly of families and community
2.Solutions	2.1 External Motivation	-Internal Motivation - Maternal instinct	-Be intrinsic Motivation derived from the sexual drive inside individual, which is the instinct for surviving. This motivation is more powerful than external motivation as the level of unconsciousness.
	2.2 Behavior Modification	- Attention Theory	-Can link Maternal Instinct Concept on Attention love being as Automatic reaction
	2.3 Negative Reinforcement	- Semantic Factor	-Apply in creating Effective Model as the level of Cognition which influences on Learning Emotion . As a result, Maternal Instinct can be driven housewife' VHV's.

Table 2.3 The critical review of problems and solutions for alcohol drinking behavior modification(continued)

Critical Review	Concepts/Theories/ Tools and Techniques		Reasons
	Old	Recent	
2.4 Alcohol Education	-Situational Learning Theory	-Situational Learning Theory	-Can make the learners see clearly, link experiences, and environment around themselves. Moreover, it can apply the resource in the community with the highest benefit.
2.5 Training the Trainer	-Walk Rally	-Walk Rally	-“ Walk Rally ” can activate learners to being active in learning, offer chances to the learners to show their characteristic of Maternal Instinct. Then, it will motivate knowledge sharing and further their knowledge based on prior experience.

Table 2.3 proposes the critical review on the problems and solutions. It compares between the previous and the current concepts, theories, tools and techniques. The critical review explained their reasons of the comparable for basis of methodology design in Chapter 3.