

## Chapter 3

### Research Methodology

As far as the family health problem is concerned, it has been found that mother themselves have the behavioral problem in drinking alcohol so that they are not able to manage their children's and husband's behavior. Even though housewife VHVs have the leading role in their family, they act in this role imperfectly. The negative effects of alcohol drinking behavior related 44 diseases on health problems. Alcohol problems are indirectly 44 diseases in housewives and children, 42 diseases in husbands and 2 diseases in neighbors and communities. For this reasons, the health promotion in the rural communities needs the decrease of the health problems with alcohol drinking behavior modification in housewife VHVs because they lack internal motivation in alcohol drinking behavior modification.

This research of methodology created the tool of knowledge management on alcohol drinking behavior modification. It consists of 2 parts, learning emotion with attention and semantic factor modelling based on maternal instinct for alcohol drinking behavior modification. The pattern of attention can be found in health insurance salesman. Additionally, the view of attention can be created in knowledge representation with HAM (Human association memory) and ACT (Adaptive control of thought). Maternal instinct semantic factor are model by knowledge capture from the experts. First group is 6 VHVs experts on alcohol drinking behavior modification, north of Thailand. Second is the health insurance company experts. Third group is 18 VHV experts on alcohol drinking in Yu Wa community. The Attention framework can be help elicited implicit to explicit knowledge. The tool of knowledge management is useful for community health officers conducting to housewife VHVs.

Activity design with housewife VHVs alcohol modification model is proved the idea in the situated learning with Walk rally. Housewife VHVs will learn and practise in the authentic of community. The station will be designed by the situation of illness,

death cases and addiction ways. They are supported by sufficiency economy, humans, budgets, materials and places in community. The activities are implemented in order to improve the learning of VHV's. The effectiveness of invention is maternal instinct which can drive on alcohol drinking behavior modification. Additionally, housewife VHV's are followed 2 months after they participate the Walk rally activities. The detail of methodology is explained in the conceptual framework.

### **3.1 Conceptual Framework**

The model framework has been developed from the policy of Alma-Ata Declaration for Primary Health Care and Ottawa Charter for Health Promotion which aimed at the same achievement as "Health for All." Moreover, Thailand's Ministry of Public Health had also written the latest 10th National Health Development Plan of Thailand (2007-2011). To serve with its policy to solve the health problems, the Ministry of Public Health worked collaboratively with the Minister of Interior in setting the role of government in public health and establishing Community Health Care Center. As the Community Health Care Center needs help from the village health volunteers for successful operation.

The problem found in the developing rural community in Thailand is the villagers love participating in social activities, therefore, they have alcohol drinking behavior. However, it turned out that the health cost is still high in San Pa Tong, so solutions have to be considered. Therefore, the researcher is interested in creating model for the village health volunteers in encouraging the villagers to realize more about their health.

The conceptual framework is semantic factor modeling to stimulate maternal instinct in learning improvement for health volunteer network on alcohol drinking behavior modification. The maternal instinct driving is the key idea and the solutions are attention driving and semantic factors using. The benefits from this concept are learning improvement of housewife VHV's, the decrease of alcohol drinking behavior in housewife and the decrease of alcohol drinking behavior in husbands and children.

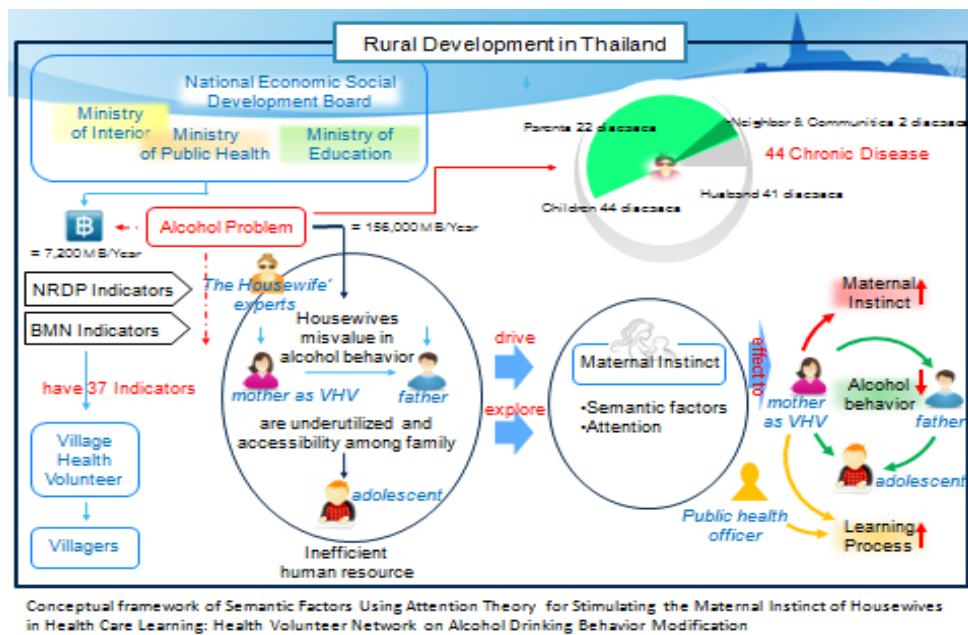


Figure 3.1 Conceptual framework of semantic factor modeling to stimulate maternal instinct in learning improvement: health volunteer network on alcohol drinking behavior modification

The problem, idea and solution of alcohol drinking behavior modification for housewife VHVs are proposed as the form of figure. There are three circles in the Figure 3.1. The first circle represents the quality of alcohol drinking behavior of mother as VHVs. The second circle represents the way of maternal instinct driving. The third circle shows the evaluation of alcohol drinking behavior. The implementation of conceptual framework can lead to the overall picture of all procedures and can help in designing research methodology systematically.

This procedure is the concept framework for alcohol drinking behavior of housewife VHVs. Obviously, the remarkable point is VHVs being as knowledge health worker to solve the public health problem, especially, the relating problems of children are dengue fever and avian fluensa, etc. However, VHVs have the behavior in drinking alcohol. Additionally, the mothers acting as VHVs lack of maternal instinct drive in alcohol drinking behavior among themselves. In summary, the solution can be

searched from this study in order to drive maternal instinct on alcohol drinking behavior modification.

### 3.2 Methodology Design

In order to prove that Effective Attention drawing can stimulate maternal instinct regarding the conceptual framework, the methodology could be designed as in the Table 3.1. This study is the qualitative research to study maternal instinct stimulated by effectively drawing attention in the area of San Pa Tong district, Chiang Mai.

The methodology design applies in alcohol drinking behavior modification for housewife VHVs. The 6 steps are proposed which indicate the tools and techniques used, including the methods in data analysis. The table also outlines the research methodology in answering the research hypothesis whether maternal instinct semantic factor model which focuses on attention drawing is able to solve the problem of alcohol drinking behavior modification in rural community or not.

**Table 3.1** Concept of design the effective attention drawing for maternal instinct stimulation on alcohol drinking behavior

Steps	Concepts/Theories	Tools and Techniques	Output
1. Analyze the knowledge workers of alcohol drinking behavior modification in the rural community.	-Role of theories for health promotion planning and evaluation cycle (Nutbeam & Harris, 2004) (1.problem definition, 2.solution generation, 3.resource mobilization, 4.implementation, 5.impact assessment,	- Case study - Open-ended questions - 5 W 1 H questions - Management structure	- The effect of VHVs' role on alcohol modification in rural areas, north Thailand

**Table 3.1** Concept of design the effective attention drawing for maternal instinct stimulation on alcohol drinking behavior(continued)

Steps	Concepts/Theories	Tools and Techniques	Output
	intermediate outcome assessment,6.outcome assessment)		
2. Analyze the pattern of dengue fever protection in housewife VHVs in San Pa Tong area.	- Maternal instinct	- Case study - Open-ended questions - 5 W 1 H questions - Social network	-Dengue fever protection in housewife VHVs in the study area.
3. Observe the work performance of health insurance salesman in selling health insurance to parent customers	- Behavior modification Theory	- Executive key informant - Counseling - Semantic factors	-Attention framework of health insurance salesman for decision- making of parents customers
4. Structure the semantic factors model on alcohol drinking behavior modification	-Attention Theory -Maternal instinct	- Case study - Open-ended questions - Social network -Semantic factors model on Attention -HAM (Human association memory) -ACT(Adaptive control of thought)	-Semantic model of housewife VHVs alcohol modification
5. Design the Activities based on Maternal Instinct Stimulating	-Situating learning Theory	- Situating learning - Walk Rally - 5Whys	-Activities in alcohol modification for housewife VHVs in rural area

**Table 3.1** Concept of design the effective attention drawing for maternal instinct stimulation on alcohol drinking behavior(continued)

Steps	Concepts/Theories	Tools and Techniques	Output
6. Validate the effectiveness of Maternal Instinct Stimulating Activities	-Attention learning	- AUDIT (Alcohol Use Disorder Identification Test) (Babor et al., 2001) -Maternal instinct trait	-The evaluation of learning improvement

This table proposes agenda consisting of step, concept/theories, tool, technique and output for semantic factor modeling to stimulate maternal instinct on alcohol drinking behavior modification for housewife VHVs. It emphasizes on qualitative data. It is processed as Qausi-Experimental Design and presented by frequency, percentage, correlation analysis. It benefits on being as a guideline and monitoring in proving the idea and answering research questions.

### 3.3 Sample Selection

The north of Thailand has the highest number of people with alcohol drinking behavior (HITAP, 2008). There are 8,486 villages which are responsible by 166,669 village health volunteers (Jeungsatiansap et al., 2007) and each of them has their duty for 15-20 households. Amphor San Pa Tong, Chiang Mai is the selected area of this study. This is the alcohol drinking society in the rural community which shows at the top five of illness from alcohol drinking effects (Suanprung, 2010). The Hospital Accreditation report of San Pa Tong (2010) revealed that the expenses of the in-patient and out-patient departments were in excess of 30 million Baht. The critical area of alcohol problem is Yuwa sub-district (Sanpatong Hospital, 2010). The sub-district has 15 villages which have 5,454 households. There are 273 who are responsible for taking care of all households in this district. This area has 221 housewife VHVs who have

faced the alcohol problems in the community. The sample selection of study is defined as 54 housewife VHVs living in Yuwa sub-district. They have husband and 11-24 year-old adolescents.

This study experimented with two groups for proving the activity of attention drawing in maternal instinct. It consisted of control group which had 54 pretest-housewife VHVs, had husband and 11-24 year-old adolescent and experimental group which was posttest-at the same group of sample in Yuwa sub-district. On the other hand, the experiment of real situation might encounter the limitations such as the participants, time and places. The number of participants might be limited, they might have the other works and could not associate with the experiment. The feasibility time for participation was important. They would be organized with the community schedule by community health officers. The availability of places might be limited too as they did the other works in the village as well. Therefore, the coordination with community was the factor of consideration.

To address the family problem within a rural area of Thailand, the populations were selected by Purposive Sampling and measured by Experimental Design with One group Pretest-Posttest design. The populations were 30 female village health volunteers who had husband with alcohol consumption record and had 11-24 year-old children in one particular village. This village needed to have the impact of alcohol drinking behavior in San Pa Tong district, Chiang Mai. The qualifications of the samples were as follows;

1. Ability to read, write and communicate in Thai
2. Cooperation
3. Female VHVs having husband with alcohol consumption record and had 11-24 year-old-children.

Therefore, the total populations were 30 female VHVs. However, there were just only 26 subjects who fully participated in this study. This number could be calculated as 86.67%. There were only 4 samples (13.33%) who could not fully participate because of village meetings

### 3.4 Process of Maternal Instinct Semantic Factor Discovery

Process of maternal instinct semantic factor discovery is the identification of process of maternal instinct semantic factors for alcohol drinking behavior modification to housewife VHVs. It is employed with 6 processes: (1) Analysis of history of alcohol drinking behavior modification in community in the past five years, (2) Analysis of work performance of housewife VHVs in efficient cases in, e.g., bird flu and dengue fever, (3) Observation on work performance of health insurance salesman in selling health insurance to parents customer, (4) Structuring the semantic factors model, (5) Maternal instinct stimulating activities design and (6) Validation of the effectiveness of maternal instinct stimulating activities. The benefit of these processes is to describe the procedure in detail in each step.

**Step 1** Analysis of knowledge workers of alcohol drinking behavior modification in the rural community in the past five years

This section identifies knowledge workers of alcohol drinking behavior modification in the rural community. The concept is health promotion on alcohol drinking behavior decreasing. This study focuses on six areas in Chiang Mai, Lumphun, Lumpang, Nan and Payao.

The method of data collection consisted of:

1. The director of the Center for Alcohol Studies (CAS), Thailand recommends the experts who succeeded in alcohol modification in rural community. VHV experts of 6 cases who have alcohol drinking behavior modification in 6 rural areas, Thailand
2. In-depth interview was conducted among experts by using the semi-structured open-ended questions. The questions were based on the components of maternal instinct on alcohol drinking behavior modification. They identified the key informations of the subjects on alcohol drinking behavior modification systems.



3. The record was decoded and coded from tape and video recorder in order to write the concept map. Then, the map would be arranged, edited and validated by the experts again.
4. The systems of alcohol modification in rural communities are represented by concept map.

The tools consisted of:

**Tool 1:** Guideline questions for interviewing VHV experts of alcohol drinking behavior modification of northern Thailand

The researcher ask these following questions, spending at least 45 minutes to an hour in order to cope with all guidelines.

**Table 3.2** Guideline questions for interviewing VHV experts of alcohol drinking behavior modification of northern Thailand

<ul style="list-style-type: none"> <li>- What is the personality of VHVs in your village? ( in order to adjust the alcohol drinking behavior in the community )</li> <li>- How is that personality important to VHVs, so that they can adjust the alcohol drinking behavior? How do you observe?</li> <li>- Why the personality of VHVs affected to adjusting alcohol drinking behavior? How do you observe?</li> <li>- What are the methods used in adjusting alcohol drinking behavior? Where do you learn from? Where can you find the document? / Where can you seek for persons?</li> <li>- What are the particular techniques to motivate that personality to succeed in adjusting the behavior in each method?</li> <li>- What are the obstacles and limitations of particular personality to demotivate the adjustment of alcohol drinking behavior in the community? Can you give any suggestions or any limitation?</li> </ul>
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**Step 2** Analyze the pattern of dengue fever protection in housewife VHVs in San Pa Tong area. This section investigated the pattern of efficient work of housewife VHVs in the study area on dengue fever protection. The concept is maternal instinct trait on VHVs. Investigating the cases' benefits for retrieving the main key factors leading to the achievement.

The method of data collection consisted of:

1. The public health officer of Family Practice and Community selected two experts who succeeded in dengue fever in rural community.
2. In-depth interview was conducted among experts by using the semi-structured open-ended questions which was based on dengue fever.
3. The record was decoded and coded from tape and video recorder in order to write the concept map. Then, the map would be arranged, edited and validated by the experts again.
4. The guidelines of the protection of dengue fever in rural communities were presented along with the factors of the dengue fever protection.

The tools consisted of:

**Tool 2:** Guideline questions for interviewing VHVs experts of dengue fever protection

All six questions need the answers. Therefore, the researcher is able to comply and analyze them.

**Table 3.3** Guideline questions for interviewing  
VHVs experts of dengue fever protection

- Who are the helpers about the dengue fever protection in the village?
- What is the step of dengue fever protection?
- How do you do this?
- Why are you doing this?
- When does the work start and finish? How long do you do?
- Where is this work done?

**Step 3** Observe the work performance of health insurance salesman in selling health insurance to parents customer

The case study of health insurance salesman can lead to seeking of structure for behavior modification because this case has the concise and systematic pattern. The applied theory is behavior modification. In this case, the data are obtained from senior personnel manager who had high experiences in a health insurance. She had the quality of female, had responsibility for the children and family. Finally, the pattern of selling health insurance to parents customer comes out.

The method of data collection consisted of:

1. The executive of health insurance provides the information of working pattern.
2. The researcher creates semi-structured interview with the pattern of ACT-R, testing the model and conducting the interview.
3. Analyzing and presenting knowledge representation are conducted, classifying the knowledge with HAM and ACT-R
4. The model of semantic factors is derived from alcohol drinking behavior modification. It is consisted of cognition, feeling and action tendency.

The tools consisted of:

**Tool 3:** Guideline questions for interviewing health insurance salesmen Health insurance salesmen are interviewed based on the pattern of ACT-R.

**Table 3.4** Guideline questions for interviewing health insurance salesmen

- |  |
|--|
| <ul style="list-style-type: none"><li>- How many groups of customers are interested in health insurance? What are they?</li><li>- What are the factors leading to do health insurance?</li><li>- Which technique do you apply in selling insurance?</li><li>- What are the qualifications of salesmen to engage in the training?</li></ul> |
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**Step 4** Structure the semantic factors model on alcohol drinking behavior modification

The semantic factors are used to build the model motivating the maternal instinct within housewife VHVs. It is able to draw attention of alcohol drinking behavior. The concept is Attention Theory and Maternal Instinct concept. The benefit of the semantic factor is housewife alcohol modification model innovation.

The method of data collection consisted of:

1. The leader of village health volunteer selects 18 interviewees on alcohol drinking behavior modification expert in San Pa Tong district.
2. In-depth interview was conducted among experts by using the semi-structured open-ended questions which were gathered from health insurance working pattern.
3. The record was decoded and coded from tape and video recorder in order to write the concept map. Then, the map would be arranged, edited and validated by the experts again.

4. The data were analyzed and presented knowledge representation in alcohol drinking behavior modification. They were guidelines of alcohol modification in rural community.

The tools consisted of:

**Tool 4:** Guideline questions for interviewing housewife VHVs expert on alcohol drinking behavior modification

The interviewer follows the step of interview with the following guidelines.

**Table 3.5** Guideline questions for interviewing housewife VHVs expert on alcohol drinking behavior modification

Interview Step	Interview Guideline
1. General talking to build relationship, self-introduction and telling objectives	-How do you come here? What are the objectives to come here today? -I am...(name)...to interview you about how to help villagers to stop drinking successfully. -Spend 30-40 minutes, do you have time?
2. Problem Investigation	- Is there anybody who drinks? How much does he/she drink each they? - After drinking, does he/she get any effects such as sickness, income expenses, family, children, wife, etc? How does it affect? - Which impact leads to stop drinking alcohol?
3. Thinking/Solution	- What steps or processes do you use to stop drinking alcohol successfully?
4. Alternate Solution	- Which method or situation is effective in stopping drinking alcohol behavior?

**Table 3.5** Guideline questions for interviewing housewife  
VHVs expert on alcohol drinking behavior modification(continued)

Interview Step	Interview Guideline
5. Conclusion	<p>- The main effect on A behavior is.....?.....</p> <p>- .....?.....is the important situation causing A to stop drinking</p> <p>- You apply.....?(method)</p> <p>The steps are 1.....?</p> <p>2.....?</p> <p>3.....?</p> <p>4.....?</p> <p>5.....?</p> <p>- Do you want to add more information?</p>

**Step 5** Design the Activities based on Maternal Instinct Stimulating

The design of activities is based on dynamic groups as Walk Rally Activities. The components are the characteristics of maternal instinct related with the methods of model. The model is described in the six stations. Importantly, the stakeholders are the resources of communities such as health officers, teachers, monks and alcohol sellers.

The method of data collection consisted of:

1. The model creation analyzed the components of alcohol drinking behavior modification pattern from the authentic situation and human resources in rural community.
2. The researcher surveyed the authentic situation in rural community matching with maternal instinct semantic model. They were created by the movies on the topic of maternal instinct stimulation.
3. The activity designing are to design activities of the maternal instinct semantic factors model. It consisted of cognition of the alcohol drinking

behavior modification model, the chosen movies on maternal instinct stimulation and calibrated with 3 VHVs who had maternal instinct trait and ability of alcohol modification. They performed the activities at the stations for maternal instinct stimulation.

The tools consisted of:

**Tool 5:** Agenda of Walk Rally Activities

The schedule needs for run in chronological order. So, the participant will understand the activity step by step.

**Table 3.6** Agenda of Walk Rally Activities

<b>Time (min)</b>	<b>Numbers of participants</b>	<b>Number s of class</b>	<b>Contents</b>
15-30	30		-Registration of participants -Evaluate before joining Walk Rally
15-30	30	1	-The importance of the maternal instinct -The videotape "Life for Children" and "Mother's Day"
45-50	30	1	- Case study of illness caused by alcohol drinking behavior" by the Chief, Building Inpatient Department of Medicine.
45-50	10/group	3	- Case study "families who lost loved ones drinking behavior" by village health volunteer of Nong Sariam village.
45-50	10/group	3	- Case study "the example of family drinking behavior modification by the member in family "
45-50	10/group	3	- Case study in the liquor shop and society's recognition.

**Table 3.6** Agenda of Walk Rally Activities(continued)

<b>Time (min)</b>	<b>Numbers of participants</b>	<b>Number s of class</b>	<b>Contents</b>
45-50	1/1 children	1	- Practise "to convey to learn about behavior modification binge to children and youth in school "
45-50	27	1	- Sermons on "grace fable about a mother and pleiades" by the abbot of Tonpuang temple
15-30	26		- Evaluate the participation Walk Rally

**Step 6** Validate the effectiveness of Maternal Instinct Stimulating Activities

The validation the effectiveness of Maternal Instinct Stimulating Activities was applied to validate whether Maternal Instinct semantic factor model on alcohol drinking behavior was practical or not in the authentic situation. The theory was Attention Learning based on maternal instinct in each of stations; cognitions, activities, characteristics and others. The benefit of it was to prove whether the model is practical or not.

The method of data collection consisted of:

1. The activities were validated by five experts in each of the activities, matching the context of model and the real situation, sample test in the workshop and improvement for the practical model.
2. Sampling test among housewife VHVs 30 cases in San Pa Tong district. The sampling group needed to have husband with alcohol drinking behavior and 11-24-year-old children. Housewife VHVs were tested with pre-post test.
3. The model of alcohol drinking behavior was implemented and evaluated with the open-ended questions on the blank papers and AUDIT (Alcohol Use Disorder Identification Test)



The tools consisted of:

**Tool 6.1:** Attention Drawing Concept Blank Sheet

This blank sheet is to survey whether the samples have the maternal instinct elicitation or not.

**Table 3.7** Attention Drawing Concept Blank Sheet

List	Cognition
1	Finance
2	Health
3	Family
4	Children
5	Society's Recognition
6	Environment

**Tool 6.2:** AUDIT (The Alcohol Use Disorders Identification Test: Interview Version)

Read questions as written. Record answers carefully. Begin the AUDIT by saying “Now I am going to ask you some questions about your alcoholic beverages during this past year.” Explain what is meant by “Alcohol beverages” by using local examples of beer, wine, vodka, etc. Code answers in terms of “standard drinks.” Place the correct answer number in the box at the right.

**Table 3.8** AUDIT (The Alcohol Use Disorders Identification Test: Interview Version)

(Babor et al., 2001)

1. How often do you have a drink containing alcohol? (0) Never [Skip to Qs 9-10] (1) Monthly or less (2) 2 to 4 times a month (3) 2 to 3 times a week (4) 4 or more times a week
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**Table 3.8** AUDIT (The Alcohol Use Disorders Identification Test: Interview Version)  
(Babor et al., 2001) (continued)

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
3. How often do you have six or more drinks on one occasion?
4. How often during the last year have you have found that you were not able to stop drinking once you had started?
5. How often during the last year have you failed to do what was normally expected from you because of drinking?
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session? (0) Never (1) Less than monthly (2) monthly (3) weekly (4) Daily or almost daily
7. How often during the last year have you had feeling of guilt or remorse after drinking?
8. How often during the last year have you been unable to remember what happened the night before you had been drinking?
9. Have you or someone else been injured as a result of your drinking?
10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?

**Tool 6.3:** Open-ended questions based on Attention Drawing

The items have to be answered all in each aspect. Thus, there will be enough data to analyze and synthesize.

**Table 3.9** Open-ended questions based on Attention Drawing

Aspects	Questionnaire
Cognition	- What are additional knowledges do you gain from this activity?
Feeling	How do you feel after doing this activity? - Towards yourself - Towards family member - Towards your community
Action tendency	- What will you do after doing this activity?

**Step 7** Varification of the Maternal Instinct Semantic Factor Model

**Tool 7.1:** Validation of Maternal Instinct Semantic Factor Model

This tool is used to check whether the stations being consistent with the relationship or not.

**Table 3.10** Validation of Maternal Instinct Semantic Factor Model

The situation of authentic situation	Relationship			Recommendation
	Maternal Instinct Stimulation	Attention Drawing on Semantic Factors	Alcohol Modification Learning	
1. Hospital				
2. IPD				
3. Sample Cases				
4. Liquor Shop				
5. School				
6. Temple				

**Tool 7.2:** Verification of Maternal Instinct Semantic Factor Model

This tool helps verify the elements of model and the stations by check list and also needs recommendation from the health officer expert.

**Table 3.11** Verification of Maternal Instinct Semantic Factor Model

The elements of Model	The station						Recommendation
	1	2	3	4	5	6	
Maternal Instinct Stimulation							
1 Sympathy							
2 Altruism							
3 Brotherhood							
4 Caretaking							
5 Protection							
6 Cooperation							
7 Harmony							
8 Self-sacrifice							
Attention Drawing on Semantic Factors							
1 Cognition							
2 Feeling							
3 Action Tendency							
Alcohol Modification Learning							
1 Finance							
2 Health							
3 Family							
4 Children							
5 Society's Recognition							
6 Environment							

## Validity

Each of the processes was used to examine the validation. Validation is the analyzing of knowledge base by the experts. This process consisted of accuracy and completeness of knowledge base by code reading, testing and using the created model. When the model found the components of knowledge logically incorrect, it was verified through attention in each of the target groups. They were matched by the cognitions. Then the model was changed and recommended by the knowledgeable experts. The experts should confirm and take consideration before the implementation was processed.

(1) The accuracy of knowledge base approached the cognitive process with weights. It focused on high solution or method on alcohol drinking behavior modification. The data provided the measure of frequency. The knowledge base is validated and then, the alternate decision was selected for decision choice. Result is represented by the table which the rows are method and columns are number of experts.

(2) The completeness of knowledge base could be validated by the cognition and action tendency. The experts examined the set of cognition and action tendency to determine if the list was completed. Result is represented by the two tables. The first table shows the rows as cognition and column as method. The other table, the rows as action tendency and columns as the methods.

Qualitative data analysis was made by content analysis of text and quantitative data analysis using SPSS. Validate process is beneficial for proving the usability of alcohol modification model whether practical or effective or not. The new activities designing of this model is from semantic factors housewife VHVs. The activities mentioned here were the alternative of maternal instinct driving from semantic factor model developed in order to modify the alcohol drinking behavior in rural community. Finally, the outcome is maternal instinct semantic factor model which is practical and effective model for alcohol drinking behavior modification in the authentic situation.

**Table 3.12** Timeframe of alcohol drinking behavior modification for housewife VHVs designing

Process	2012												2013			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
1. Analyze the knowledge workers of alcohol drinking behavior modification in the rural community in the past five years.	←————→															
2. Analyze the pattern of dengue fever protection in housewife VHVs in San Pa Tong area.						←————→										
3. Observe the work performance of health insurance salesman in selling health insurance to parents customer							←————→									
4. Structure the semantic factors model on alcohol drinking behavior modification									←————→							
5. Design the Activities based on Maternal Instinct Stimulating											←————→					

**Table 3.12** Timeframe of alcohol drinking behavior modification  
for housewife VHVs designing(continued)

Process	2012												2013					
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
6. Validate the effectiveness of Maternal Instinct Stimulating Activities																		



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