

CHAPTER 3

Research Methodology

This research employed the research and development model to develop the courses on science and art for happiness creation based on contemplative education for bachelor degree students Chiang Mai University

3.1 Population and Sample

3.1.1 Population: The population for this research is of the students studying in undergraduate study programs at every year class and faculty or institute affiliated with Chiang Mai University 2012 academic year.

3.1.2 Sample: The sample for this study was composed of 51 students studying in undergraduate study programs at every year class from the faculties of science, engineering, agriculture, and nursing at Chiang Mai University studying in the second semester of 2012 academic year and were enrolled in the course science and art of building up happiness.

3.2 Conduction of the research

The researcher had carried out this research based on TABA's 7 steps for curriculum development along the 3 research phases, the first step- started with the need assessment or surveying the needs of the society and the learners was in phase 1, also second and third steps- identifying the objectives of the curriculum to be developed after the assessment of the the learner's needs, -Selecting all contents of the curriculum basing on the identified objectives, respectively were in phase 1 For phase 2 relevant to step 4-7, the fourth step- organizing the contents to assure their continuity and linkage and suitable to the maturity, ability, and interest of the learners, the fifth step- analyzing all of the learning experiences and processes to

assure their relevancy to the objectives and contents of the curriculum, the sixth step- setting the learning experiences considering the nature of the contents to assure the learner's learning or experiences and the sequence of the contents, the seventh step- identifying the things to be evaluated and how to evaluate them. Decision had to be made on what to evaluate to check the achievement of the goals set in the curriculum. Besides how to evaluate, the evaluative instruments had to be identified as well. Finally in phase 3 the course has been implemented. Details for 3 phases are as follows:

3.2.1 Phase 1

This phase was for studying the contents of the problems, reviewing the related literatures related covering the scope of the research to study the feasibility of the curriculum development and obtain the approval of offering the course. The phase was also for setting up the principles and components of the curriculum and used the information for synthesizing the drafted course. There are two sub-phases as follows:

- 1) Sub-phase 1.1 for studying and reviewing literatures, engaging in the training sessions, and participating in the projects related to the courses to be developed. The details are:
 - 1.1) Besides studying problem and needs for curriculum development found that learners both fundamental level and higher educations stressed from learning due to contents and others factors. When considered in education for higher level, most of curriculum arrowed to knowledge and skills of academic and professional points. Life skills, especially skill for happiness creation had not been focused both curriculum level and learning activities level, as well.
 - 1.2) Searching on and studying the courses offered in the faculties or institutes affiliated with Chiang Mai University. Particular focus was on the general education course and the courses in other categories whose contents were concerned with happiness, life quality, contemplative education, and human life

and learning. Two courses were found. These are 050106: Humanistic Arts which is a general education course of the Faculty of Humanities and courses 510100: Wellness which is the course in the core-course category of Faculty of Associated Medical Sciences. The course has the course title related to happiness but when its course description and instructional process were analyzed and observed, it was found that the course did not really focus on happiness or happiness development but it generally deals with life quality. The course description covers “ This is a course for involving the wellness and health status in physical, emotional, social, intellectual and spiritual wellness including principle of good health in holistic both knowledge and merit, following by diet, nutrition, exercise, fitness, wellness and health status laboratory monitoring, stress management and ethic.” The course is taught through 30 lecture hours and 30 practice hours.

In regard to contemplative education, there has not been the application of the principle to develop a direct course or study program in any faculty. However, its concepts have been used in organizing the instructional process by integrating with others principles in education and medicine faculties. At the Faculty of Education, besides inserting the concepts and guideline of contemplative education in the instruction on the existing courses, many projects on contemplative education were carried out under the financial support of Thai Health Promotion Foundation such as the project on contemplative education and teacher personality, workshops to enhance understanding on organizing activities to develop contemplative education, website project, and wire broadcasting of contemplative education beginning in 2009.

In the Faculty of Medicine, the student quality development section has set up the project on student development led by Assoc. Prof. Dr. Udom Chaithong and the team. Some personnel of nursing section of Maharaj Nakorn Chiang Mai Hospital, have utilized contemplative education principle in a personnel development project called “Fulfilling Life and Work” led by Kanuengnit Chailangkarn, a level 8 registered nurse, head of psychiatric in-patient Unit 2. She was trained on spiritual development using knowledge management and knowledge sharing supported by Sodsri-Saritwong Foundation. This project started in 2010. (Chailangkarn, Kanuengnit, 2010)

In searching and studying the related literature reviews on the projects carried out in other places, it was found that the contemplative education study program was developed for nursing students of Srimahasarakham Nursing College led by Lecturer Narumon Anekwit in 2009, as a part of the doctor of education program, Khon Kaen University. The courses are concerned with contemplative education and its guidelines and techniques aiming at facilitating the students to realize the humanistic values of themselves to understand and realize humanistic values of others leading to their capacity of performing nursing tasks on integrative basis (Anekwit, Narumon, 2009).

Moreover, it was found that contemplative education was used to develop the students and educational personnel through the training organized by various agencies, institutes and foundations such as Sodsri-Saritwong Foundation, Kwanmuang Institute for Contemplative Learning, Arsom Silp Institute of the Art, and Contemplative Education Center at Mahidol University. Concerning happiness development, particularly the happiness beyond the worldly or sex-driven happiness, at the present there

have been a lot of enthusiasm in participating in the program aiming at such happiness. This is particularly the case in the ones on life quality development, meditation practice both at calming down and intelligence acquiring levels. The concerned organizations have organized such activities to promote contemplative education. Chiang Mai University, as an educational institution, has continuously carried out such activities in collaboration with Pimokmuk Institute founded by Professor Dr. Chamlong Disayavanich.

1.3) Studying the Thai Qualifications Framework for Higher Education (TQF: HEEd) to be used as the framework and guideline for developing the course to fit the Ministry of Education's policies.

1.4) Study-touring and participating in the projects as well as sharing ideas with the knowledgeable persons and academics concerning contemplative education and happiness development as follows:

1.4.1) Organizing a study-tour to Arsom Silp Institute of the Art which is a higher education institution providing education basing on contemplative education framework in July, 2009.

1.4.2) Taking part in the seminar on techniques of using contemplative education in the instruction under the Project to Promote Morality and Ethics for Thai University Graduate Development via Thai Idea Graduate Network joined by higher education institutions in 17 northern provinces during September 13-14, 2010.

1.4.3) Participating in the 3rd annual academic conference on contemplative education on "Happiness and Fundamental Changes of Humans' organized by Mahidol University Contemplative Education Center, during December 1-3, 2010.

1.4.4) Participating the workshop on "Techniques of organizing

instruction basing on contemplative education” under the project to promote morality and ethics to develop Thai graduate via the Ideal Graduate Network during from Friday July 29 to Sunday July 31, 2011, at Uttaradit Rajabhat University

1.4.5) Taking part in the Project on life quality development via meditation practice at Pimokmuk Institute, Suthep Sub-district, Muang District, Chiang Mai, for 2 times each of which took 8 days and 7 nights during October 17-24, 2010, and October 23-30, 2011.

1.4.6) Engaging in the dialogue on happiness and contemplative education with the consciousness revolutionists, academics, knowledgeable person on Buddhism, and educators who had experience on curriculum development, e.g. Phramaha Sa-nga Theerasongwaro (Phra Khru Theera Suttapot) – Director of the Academic Bureau, Phramaha Dr. Saneh Dhammawaro, a faculty member of the doctoral program on Buddhist studies, Mahachulalongkornrajavidyalaya University, Chiang Mai Campus, Professor Dr. Chumlong Disayawanich, a retired faculty member of Department of Psychiatry, Faculty of Medicine, Chiang Mai University, presently the Director of Pimokmuk Institute, Dr. Parithat Sinlapakit, a senior psychiatrist, Deputy Director of Medical Division, Uthaiwan Kanjanakomol, a freelance academic, former dentistry faculty member, Chiang Mai University, and Asst.Prof.Dr.Chumpol Poolpatarachewin, a consciousness revolutionist and special lecture of the contemplative education study program, Mahidol University

2) Sub-phase 1.2 for the course curriculum synthesizing by integrating all the knowledge acquired through the literature review, trainings, and

participation in all the programs and activities related the curriculum development of the course as in sub-phase 1.1

3.2.2 Phase 2

Course curriculum development and curriculum quality assessment period: It was aimed at improving the curriculum drafted in 1.2 sub-phase to revised and improved by checking the curriculum components with TQF 3 - Course Specification as required by the Office for National Education Standards and Quality Assessment and TQF 3 required by Chiang Mai University Office of Educational Quality Development which comes up in 6 sections. Afterward, the researcher submitted the drafted curriculum to the experts on curriculum and instruction and on the course content on happiness and contemplative education to assess the instruments' quality (as detailed in the section on research instrument assessment). In this second phase, the researcher spent time for developing the curriculum content, constructing instructional media for the instruction on the curriculum content, and design the curriculum by utilizing the KC-MOODLE template which is the Learning Management System (LMS) of CMU Online and created a Facebook which is a closed group for the students to communicated and share the information between the teacher and students and among the students. This is because facebook is the online social network enjoyed popularity among students and people in general. Besides, the researcher had coordinated with the concerned training sources and individuals or resource persons for out of the classroom practice which took 30 hours. The details of instructional media development for delivering the course contents are as follows:

1) The Creation of VDO clips:

- 1.1) The researcher had interviewed the various concerned individuals on perspectives on happiness in various dimensions or contexts. These informants included Phramaha Sa-nga Theerasangwaro, a Polish tourist man, Dr. Parithat Sinlapakit, Khun Kanuengnit Chailangkarn, Khun Thanadej Manee, the research

assistants - two 4th year nursing students, and a researcher and a student from Mae Jo University.

1.2) A VDO clip introducing to an out of classroom practice site which was Wat Pha Lat.

- 2) Describing and introducing the course with the instructional media developed in form of streaming video for 2 times.
- 3) Searching for and screening YouTube VDO scripts whose contents were related to the content of the courses – life and education, contemplative education, and happiness before viewing them and checking if their contents are relevant to the course contents. After screening, there were 25 scripts that were considered relevant (as shown in KC-MOODLE and Facebook)
- 4) Searching and screening the files of letters, picture and/or sound whose contents were relevant to the content of the course which were about life and education, contemplative education, and happiness. After the screening there were 11 files of letters, pictures, and/or sound (as shown in KC-MOODLE and Facebook).
- 5) The researcher designed teaching and learning for this course for e-learning via LMS : KC-MOODLE in CMU Online and some part in Facebook. Researcher had posted all the clips, files, and learning media in KC-MOODLE. Besides, for the convenience of accessing them by the teacher and learners as some media were of large file, the researcher posted them in the facebook of the group and /or posted in 3BB Cloud Box, and personal YouTube then linked to the group facebook called CMU Happy Learners S.2/2012 via https://www.facebook.com/groups/432834956773999/?bookmark_t=group.
- 6) Contracting the sites for practicing which were relevant to the content on practice of this course including the safety, suitability, and feasibility in other contexts such as time for the travelling, expenses, for example. There were 4 practice sites to which the researcher chose to survey. These were Pimokmuk Institute, Wat Pha Lat (Sakathmi), Muang District, Tham Pha Plong Priests Camp Site, Chiangdao District, and

International Meditation Center, Maha Chulalongkorn Ratchawitthayalai, Chiang Mai Campus, San Sai District, Chiang Mai. Basing on many reasons as mentioned, the researcher had chosen Wat Pha Lat (Sakathmi) as the practice site.

- 7) The researcher took all curriculum documents, medias and learning and teaching plan prepared on KC-MOODLE to the experts for testing and validation.
- 8) Edited all things the experts suggested before the course curriculum has been implemented.

3.2.3 Phase 3

The phase for implementing the curriculum and curriculum assessment. This phase was to implement the curriculum that had been checked of its quality with the sample composed of Chiang Mai University undergraduate students- mean bachelor degree students, and conducted the curriculum assessment at the end of the instruction.

During this implement, the researcher had planned to follow the curriculum contents designed through the learning process as detailed in the research instruments used in this research which included the courses on science and art of building up happiness. The researcher had utilized the principles and concepts of contemplative education and its guidelines or techniques in organizing the instructional process for the learners for every teaching period. All contents of the courses were studied by the researcher to facilitate the learners study and learn by themselves through e-learning before assigning them to engage in the learning activities outside and on online system mainly via the facebook. All these learning activities were based on the 5 contemplative education techniques, namely, 1) Deep Listening, 2) Contemplation, 3) Meditation, 4) Dialogue, and 5) Learning Reflection. Moreover, the researcher also used the by research in the processes of learning development and improvement to assure the quality of the instruction and its effectiveness. The classroom action research was conducted in each periods ,regarding the standard

procedures of the classroom action research, based on the suggestions made by Kittiporn Punyapinyophol (2006) which guided the researcher to do the following procedures:

- 1) Plan: The researcher had to prepared the plans including the instructional ones to be implemented later on
- 2) Act: Implement the plan
- 3) Observe: Observe the results of the implementation and collect the information through observation during and after implementation
- 4) Reflect: Reflect on the practice and use the results of the implementation and the reflection to base the planning in the next cycle of operation as shown in Chart 3.1 below.

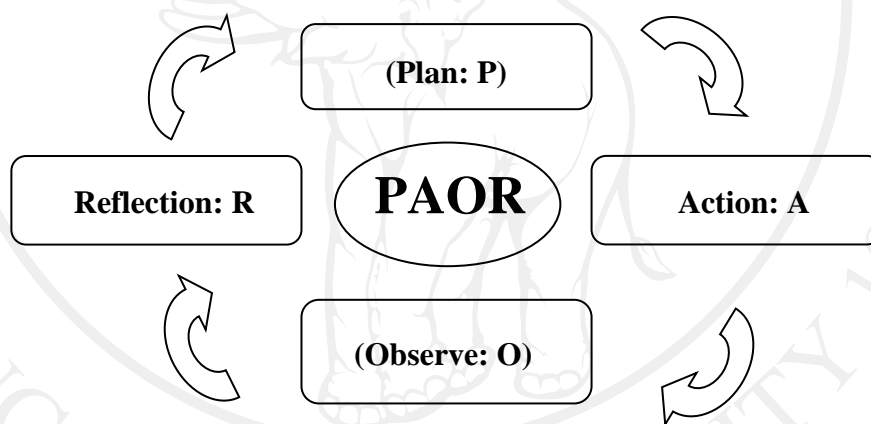


Figure 3.1 PAOR : Action Research Cycle

The researcher had used PAOR cycle together with 5 contemplative techniques for 8 learning activities in classroom and used some techniques for online learning – deep listening, contemplation, and learning reflection. PAOR cycle was used in every learning period, chart 3.2 (next page) shown sample of 3 PAOR cycles used in 3 classroom learning periods that is the first cycle in learning period 1, second cycle in learning period 3, and the third cycle in learning period 5, respectively.

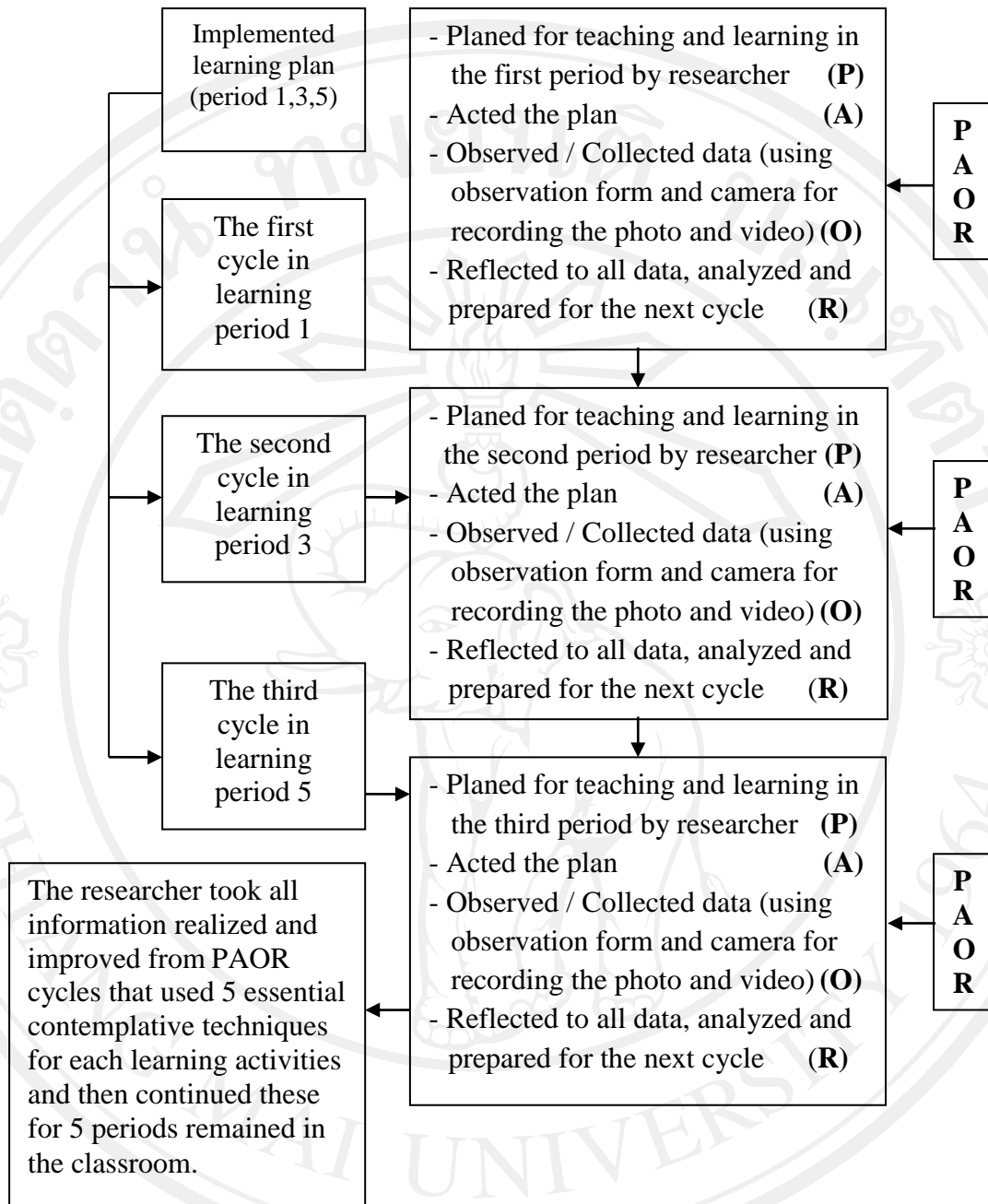


Figure 3.2 Samples of 3 PAOR Cycles

3.3 The Research Instrument

The instruments used in this research are:

3.3.1. The Science and Art for Happiness Creation Course Based on Contemplative Education for Bachelor Degree Students Chiang Mai University

This course developed by the researcher was allowed to teach in the 2nd semester of 2012 academic year. It was a general education course which could be taken by the students in any study program offered by the faculties and institutes affiliated with Chiang Mai University. It could also be taken as an elective course. The courses requires 30 classroom hours and learning from the learning camp or other selected learning resources for another 30 hours. The learners also had to engage in the self study via e-learning and other media. All these instruments were prescribed in the curriculum documents basing on the Thai Quality Framework for Higher Education (TQF.3) taken care of by Office of Educational Quality Development, Chiang Mai University. The document included the course title, course code, number of credit units, and details in the 6 sections as follows:

- 1) Section 1: General Information – composed of the course type, which study program required it, the responsible faculty members, semester/year offered, classroom site, and number of hours per week the instructors would provide for the students' individual counseling and guidance.
- 2) Section 2: Description and operation – composed of course description, course objectives, and the course contents.
- 3) Section 3: The development of the students' learning to achieve all the 5 dimensions of objectives, namely, morality and ethics, knowledge and intellectual skills, interpersonal relationship skills, responsibility, and information and communication analyzing and using skills.
- 4) Section 4: Instruction and Evaluation Plans composing details on learning activities in each of the topic and week, the media used, and evaluation plans on each of the learning domains.

- 5) Section 5: Learning Resources including textbooks, related websites, documents and other forms of information, and Learning Management System: LMS which is KC – MOODLE CMU Online system.
- 6) Section 6: Evaluation and Revision Process of the Course composing the strategies for assessing the effectiveness of the course by students, strategies for evaluation, mechanism for instructional improvement, processes for reviewing the course achievement of the students, and the operation to review and improve the course effectiveness.

3.3.2 The Students' Happiness Indicators

This instrument developed by the researcher via literature review related to happiness as defined by this research which was the Likert Scale with 7 levels on 25 evaluative items composing 19 positive and 6 negative ones. The 7 evaluative levels are as follows:

- 1) Level 1 is referred to having situation, impact, feeling, or agreement with such item at none level
- 2) Level 2 is referred to having situation, impact, feeling, or agreement with such item at the least level
- 3) Level 3 is referred to having situation, impact, feeling, or agreement with such item at little level
- 4) Level 4 is referred to having situation, impact, feeling, or agreement with such item at medium level
- 5) Level 5 is referred to having situation, impact, feeling, or agreement with such item at rather much level
- 6) Level 6 is referred to having situation, impact, feeling, or agreement with such item at much level
- 7) Level 7 is referred to having situation, impact, feeling, or agreement with such item at rather the most level

Evaluative Score Interpretation

This evaluative form had not obtained the norm and was not developed through a normative model resulting the lack of norm to interpret the score. In this

research, the researcher used total score and itemized score of the sample to compare between the pre and post of the curriculum implementation.

3.3.3 The Students' Satisfaction Questionnaire

This questionnaire composing of 5 level likert scale which was modified by the researcher from that used for studying satisfaction of one's self-learning developed by Skulphan, Sombat, et al. (2005), basing on the framework on job satisfaction used by Herzberg (1964) composing 40 items of questions covering 6 aspects as follows:

- 1) Achievement 8 items
- 2) Recognition 5 items
- 3) Responsibility 7 items
- 4) Work Itself 9 items
- 5) Opportunity 5 items
- 6) Interpersonal Relation 6 items

Five evaluative scales from the least satisfaction to the most satisfaction basing on the scoring criterion as follows:

Score 5 is referred to	Most Satisfaction
Score 4 is referred to	Much Satisfaction
Score 3 is referred to	Medium Satisfaction
Score 2 is referred to	Little Satisfaction
Score 1 is referred to	Least Satisfaction

Interpretation of Questionnaire Scores

Mean score between 4.50 - 5.00 is referred to having satisfaction with the learning at the highest level

Mean score between 3.50 - 4.49 is referred to having satisfaction with the learning at high level

Mean score between 2.50 – 3.49 is referred to having satisfaction with the learning at medium level

Mean score between 1.50 – 2.49 is referred to having satisfaction with the learning at low level

Mean score between 1.00 – 1.49 is referred to having satisfaction with the learning at the least level

3.3.4 The Students' Learning Evaluation Form

This form used for evaluation the students' learning at the end of the instruction was of open-ended questions with paper and pencil and through the CMU Online (KC-MOODLE or directly via e-mail to the researcher. The form included questions for the learners to respond on their opinion and feeling at the end of the instruction. The form contained 2 questions, namely, 1) What do you feel after the instruction both on theoretical and practical parts was finished? 2) What are the problems and obstacles you have encountered in this course? What are your recommendations for the instruction in this course? (Please freely answer and collected the answers through each of the 4 groups anonymously and the answers coming out would not make any difference on your scores as your responses would be submitted after the final exam.)

3.4 Instruments Quality Verification

The researcher had verified the research instruments the details of which are as follows:

3.4.1 The Science and Art for Happiness Creation Course Based on Contemplative Education for Bachelor Degree Students Chiang Mai University

This course was checked on quality by 5 experts including the teachers 2 of whom were with expertise on curriculum and instruction and educational psychology, a consciousness revolutionist or the one who had knowledge and experiences on contemplative education, and 2 teachers from the monk college

who taught in the doctoral degree program on Buddhism. The researcher had the experts to verify the structure of curriculum of the course and its contents as well as its other components basing on TQF3 and verify the plans for using the course curriculum or instruction via CMU Online. The latter was done beginning with the researcher given out username and password for each of the experts to login to the system to see the design and plans of the learning activities systematically posted by the researcher onto the KC – MOODLE. After every expert had provided his/her remarks and recommendations, the researcher had modified the research instruments along the recommendation before using them in the research process.

3.4.2 The Students' Happiness Indicators

The researcher had the indicators verified on its quality by the same group of the 4 experts. The process included the researcher obtained the content validity of the experts' comments and yielded the value of 0.82. After that, the researcher obtained the reliability through the responses of 20 Chiang Mai University undergraduate students using Conbach Alpha and obtained the 0.86 reliability.

3.4.3 The Students' Satisfaction Questionnaire

The content validity was checked by 3 experts and obtained the content validity of .88 with .96 confidential indicators. For this study the researcher obtained the reliability through the responses of 20 Chiang Mai University undergraduate students using Conback Alpha and obtained .94 reliability.

3.4.4 The Students' Learning Evaluation Form

The researcher had the quality checked by the same group of the 4 experts all of whom agreed with each question and suggested some modification and recommended that they had to be asked at the end of the semester to allow the learners to have information on every aspect of the learning process and measurement and evaluation with the clear note at the end of the questions that

the answers would not have any impact on the students. After the researcher had modified the course along the experts' recommendation, he posted it in KC-MOODLE after the end of the 15th period which was the last instruction.

3.5 Data Collection

In this research, the researcher had collected the data and information by himself through the process as follows:

3.5.1 Collected the data before using the course curriculum and instruction through the following steps:

- 1) Having the sample fill up their personal information in the form including gender, age, class year, the present grade point average (GPA) and reason for taking this course.
- 2) Having the sample respond to the questions in the form to evaluate happiness before the first instructional period.

3.5.2 Collecting information during the use of the course curriculum and carrying out the instruction

- 1) Having the students sign their name in attending the classroom instruction and report themselves with name and student code every time they learn from via the on-lined Facebook
- 2) Observing the students' classroom participation via the observation form, taking picture and video of the classroom activities to be used for the re-verification. Some pictures and clips were posted in the group's facebook. The results were recorded as the results of learning through contemplative education and saved in the files to be posted in the group's facebook as well.

3.5.3 Collecting the data and information after the end of the last curriculum usage and instruction and administering the final exam as follows:

- 1) Having the samples respond in the happiness indicator by themselves
- 2) Having the samples respond in the satisfaction questionnaire by themselves
- 3) Having the samples write up their responses to the 2 open-ended questions on evaluating the classroom theoretical learning and online and on practical learning out of the classroom and collected through each of the groups on anonymous basis and submitted via KC MOODLE or directly via e-mail of the researcher - sombat.sk@cmu.ac.th

3.6 Data and Information Analysis

The researcher had analyzed the data and information as follows:

3.6.1 Information from the personal information form including gender, age, class year, present grade point average (GPA) and reason for taking this course before the the researcher analyzing it in terms of frequency, percentage, mean, and standard deviation.

3.6.2 Information gained via the form to evaluate the happiness of the sample before and after the curriculum implementation before the researcher would analyze it by comparing the means using dependent t-test.

3.6.3 Date collected through the questionnaire asking learning satisfaction of the learners was analyzed in terms of means and standard deviation and compared them with the criteria on the score interpretation to evaluate the level of satisfaction each level of which was with the satisfaction score percentage.

3.6.4 Date from the Students' Learning Evaluation Form to evaluate the student's learning at the end of the instructional provision which was qualitative data obtained from the responses to 2 open-ended questions from which the researcher analyzed by classifying the content of the answers and described with some quoted answer.