

# CHAPTER 1 INTRODUCTION

## 1.1 Background

Thasao is a sub-district in Kanchanaburi province on a borderline between Thailand and Burma and it is a tourist's province. It was governed by Sai Yok district. There are 11 villages which are 1) Chong Kaeb, 2) Wang Yai, 3) Ta Sao, 4) Pu Oong Ka, 5) Pu Pong, 6) Pu Muang, 7) Pu Mood, 8) Pu Toey, 9) Wang Kamen, 10) Nong Ta Muang, and 11) Puraj. The district connects to Sai Yok, Lum Sum, Chong sadao, Wang Kajae on north, south, east and west respectively.



**Figure 1.1** Location of Tasao district on Thailand and School of Pu Oong ka village

The population was 5,475 whereas the number of household was 1,357 in the year 2009. The culture of this community is influenced by Myanmar's. There has been immigration from Myanmar around 50%. In terms of religious belief, the percentage of Theravada Buddhist is 95%, with minorities of Muslim(4.5%) and Christian (0.7%). The major occupation is agriculture and tourism.

## 1.2 Theoretical Background

### 1.2.1 Learning space

Most of people in higher education identify the classrooms or laboratories as learning space. These "formal" spaces are usually controlled via parameters such as scheduling requirements, set hours of use, set number of seats, and predetermined learning activity patterns such as lectures or discussions. Though classrooms and laboratories come first to mind, auditoriums, performance rooms, computer labs, and studios are other examples of campus spaces that, under these parameters, can be defined as formal learning space. Malcolm Brown(2009), of Dartmouth, states in *Educating the Net Gen*, "Net Gen students, using a variety of digital devices, can turn almost any space outside the classroom into an informal learning space."<sup>1</sup> What, then, becomes the role of spaces such as faculty offices, hallways, plazas, courtyards, dormitories, and food service areas? Designers have traditionally studied courtyards, plazas, and hallways for usage and flow patterns. Learning space designers must now consider the instructional implications of these spaces. Although discussions about these spaces still need to be concerned with usage patterns, a more important issue is: What types of learning activities should be facilitated in these spaces, and what type of infrastructure is needed to support these activities?

There are three major trends in learning space design (Brown, 2006). These trends have been catalyzed by constructivism, digital technology, and a holistic view of learning.

- Design based learning principles, resulting in intentional support for social and active learning strategies.
- An emphasis on human-centered design.



- Increasing ownership of diverse devices that enrich learning.

This principle could be adapted to the community learning. Originally, the learning space paradigm is based on the constructivist learning. The focus is on learning rather than teaching. It allows us to re-evaluate classrooms and consider informal learning space as loci for learning.



**Figure 1.2** Learning space at University of Queensland and La Trobe University

Another approach of the community learning space is the problem-based learning. There should be a space where a community's members can join together to solve problems by applying Problem-based learning(PBL). PBL is a student-centered pedagogy in which students learn about a subject in the context of complex, multifaceted, and realistic problems. Working in groups, students identify what they already know, what they need to know, and how and where to access new information that may lead to the resolution of the problem. PBL was pioneered in the health science at McMaster University in the late 1960's and subsequently it has been adopted by other medical school program(Barrows, 1996) and also been adapted for undergraduate instruction (Boud and Feletti, 1997). The use of PBL, like other student-centered pedagogies, has been motivated by the recognition of the failures of traditional instruction (Wingspread, 1994; Boyer, 1998) and

the emergence of deeper understandings of how people learn. PBL actively engages students in constructing knowledge in their own mind by themselves, and thus addresses many deficits of traditional classroom where knowledge is expounded by an instructor.

Characteristics of PBL are as follows:

- Learning is driven by challenging, open-ended, ill-defined and ill-structured problems.
- Students generally work in collaborative groups.
- Teachers take on the role as “facilitators” of learning.



**Figure 1.3** A whiteboard wall room at Georgia Tech and PBL process of health service(White, 2011)

Figure 1.3 shows a whiteboard wall room. Students write on one or all of the four walls with white-boards, drawing pictures and arguing. There are six PBL rooms running at the same time – six kinds of interactions between team members, because every team is different. Each student perform on how well he/she moves, by the end of every four week cycle, from an initial lack of knowledge with a particular problem to being able to present a polished 10 minute presentation in which he/she explains and defend a problem

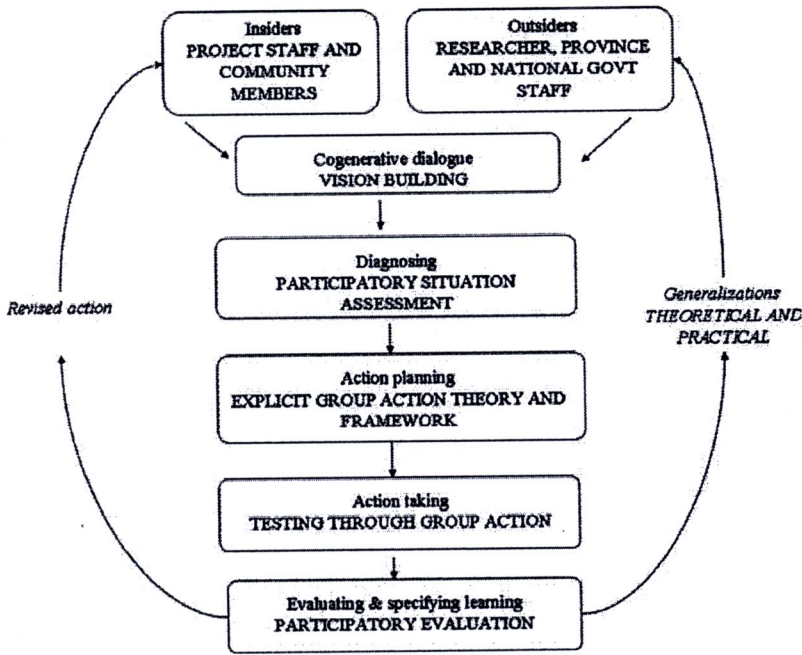
solution. Following hard questions from classmates, these students have to transform their original documents, from that feedback, into a technical report – which is another problem to solve.

For the problem-based learning process, there are many steps starting from understanding current situations, identifying problems, setting priorities, analyzing options, integrating solutions, planning, implementing, and evaluating the outcomes. The process is similar to Plan-Do- Check-Act(PDCA) that is widely used in business area. Figure 1.3 shows the process of health services that covers the problem-based learning process.

### 1.2.2 Participatory design

Participatory design is an approach to the assessment, design, and development of technological and organizational systems that places a premium on the active involvement of workplace practitioners in design and decision-making process. Byrne and Sahay used the participatory design to help the community health problem (2007). It is a case study in African on community-based health information systems.





**Figure 1.4** Participatory action research model used in case studies

From Figure 1.4, the diagram shows the participatory action research model presenting the process from both insiders and outsiders, using the dialogue to build a vision and diagnosing the participation with the participatory situation assessment before making the action plan and test. The final stage is the evaluation and feedback to revise action and create the theory and practice.

In this study, the participatory design is used as a tool to conduct the research and it was used in conjunction with the focus group method.

### 1.3 Problem Statement

Thasao community has been facing social problems from its economics basis, since income from the agriculture career is not enough. The agriculture product cannot reach the standard and market place. Thus, many people change their careers to do tourist service such as waiters and hotel service. Nevertheless, Myanmar borderline has an increasing number of drug addiction as a major problem.

Since the majorities of the community are teenagers, they are easily involved with many social problems including the problem of vehicle accident they create. Thai government has not looked after this problem much, since it is an outreach area. In addition, the telecommunication infrastructure is another problem in the district, so prepaid cards are most used and become wasteful. Moreover, there is a problem in terms of healthcare and education. Since many teenagers do not continue their study, they enter the labor market rather than blue collar work. For the healthcare problem, the community health center has a communication problem for the minority groups which are the disease carriers of Elephantiasis and Malaria.

People in this district seem to not understand their problem well. Leaders in their community are required to explain and solve problems. In order to survive in this difficult time of economic situation, people in this community must work hard and they do not have time to take care of their community and family problems. They do not communicate each other much. As a result, these people do not know how to solve problems together.

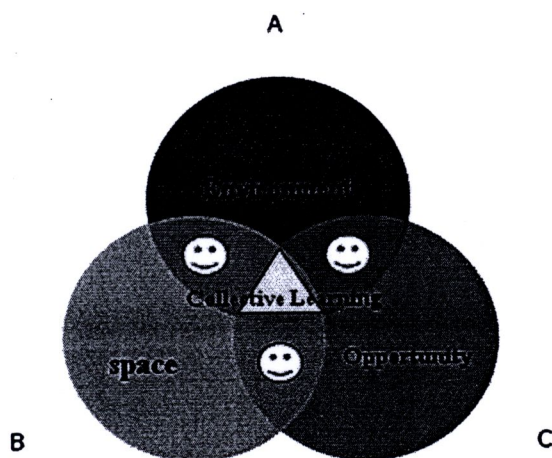
## 1.4 Objectives

The aim of this research is to understand the learning space which is the place for Ta Sao community members to meet each other. The main goal of the learning space is to gather people to solve the community problems in Ta Sao.

- To develop a learning space at Ta Sao community by using the participatory design process.
- To understand the learning space that fits to the context of Ta Sao community.

## 1.5 Conceptual Framework

The collective learning is the convergence of appropriated environment, space and opportunity (see Fig. 1.5).



**Figure 1.5** Collective learning space

This diagram explains three keys components. First, the environment is an atmosphere that supports people's conversation. For example, the Starbuck coffee shop company decorates its stores to drive people's conversation. Second, the opportunity depends on the occasion such as the time of sharing. Third, the space is a room for community to access both physical and virtual area. The convergence of three components creates a



collective learning. The collective learning means the community builds up the knowledge used to solve the particular problem together. It is similar to the concept of problem based learning. Meanwhile, problem solving in real-world contexts involves multiple ways of knowing and learning.

## **1.6 Research questions**

The experience of Tha Sao community has become a challenge for a researcher to use a new design paradigm – participatory design in the research. This research is intended to design a learning space by community members which are users in this research. Learning space design will be used as a platform for learning process in the community, therefore, the research questions are as follows:

1. Which type of a learning space fits to Baan-Pu-Ong-Ka community? There are several types of learning space around the world such as virtual learning space, library, conference and meeting room. Learning space should fit to collective learning space like environment and opportunity.
2. What is the meaning of the learning space for Baan-Pu-Ka community? Some of the meaning refers to the problem solving area, knowledge collaboration area and others. The meaning should be defined by the community.

## **1.7 Limitation**

The study focuses on examining the stakeholders such as youth and health center officers at Baan-Pu-Ka village only not the whole Ta Sao district. The topic of discussion will not cover the political or religious issue. The context will be narrowed down to the problem of youth.

## 1.8 Contribution

This research could benefit to the community as follows:

- Learning space in the context of rural area will benefit to youth and other stakeholders.
- The study could be applied to other districts all around the country. It could be a case study of how to tackle social problems.