

CHAPTER 1 INTRODUCTION

1.1 Introduction

The construct of team-based learning (TBL) was originally coined during the 1970s, by Larry Michaelsen at the University of Oklahoma (Michaelsen, Knight & Fink, 2004). Michaelsen (2004) identified the utility of integrating group assignments in his smaller classes and therefore decided to apply the same strategy to his larger classes. Team-based learning (TBL) transforms how classroom time is used and the roles that students and teachers play in the learning process (McInerney & Fink, 2003). It also helps students change their attitude towards responsibilities, develop human relationships from working as a team, exchange ideas, and apply knowledge to real-life situations and/or to new problems (Paulson & Faust, 2000). As McInerney and Fink (2003) observed from their experiences with TBL, students become more motivated, develop understanding of content, and learn complex problem-solving. Most importantly, as the authors observed, TBL “promotes a learning-centered culture” (p. 3).

In 1999, the Thai government proclaimed the National Education Act (Office of Education Council, 2001) which emphasizes learner-centeredness as being at the heart of educational reform. A learner-centered approach is an approach that may yield productive teaching and learning (Office of the National Education Commission, 2002). The Act also proposes for the second decade of education reform (2009-2018) that the new generation of Higher Education (HE) students should acquire the capacity to work as a team. In this regard it states:

In organizing the learning process, provide substance and arrange activities in line with the students’ interests and aptitudes, bearing in mind individual differences. Provide training in thinking process, management, how to face various situations and application of knowledge for obviating and solving problems. Organize activities for students to draw from authentic experience; drill in practical work for complete mastery; enable students to think critically and acquire reading habit and continuous thirst for knowledge (Office of the National Education Commission 2003, Section 24, p. 11).

Instructors are responsible for role modification. In the process of learning, a teacher is a facilitator who creates a body of knowledge for students that is centered in innovative teaching and management participation (Thipakorn, 2007). Through this process, students learn new knowledge that is collaborative. Student-centered learning encourages students to develop knowledge and skills that improve ethics, social values, and self-knowledge.

Vasan, DeFouw, and Holland (2008) found that, compared to traditional lecture-based teaching, a TBL approach in teaching anatomy allowed instructors to create an active learning environment that helped to improve student performance. According to Waeyusoh (2008), the academic achievement of undergraduate students in Thailand taught by web-based instruction using TBL was significantly higher than that of those taught by traditional instruction. Thompson et al. (2007) identified five factors related to the successful implementation of TBL as follows: buy-in from faculty and students including their enthusiasm or resistance, interest, and willingness; expertise developed through training; resources such as a properly configured classroom, textbooks, personnel support, equipment, and supplies; time in order to develop materials and flexible class periods; and course characteristics such as small class size.

The study reported on in this dissertation focuses on perceptions. It is an important area of research because before training and education modules can be designed for TBL in universities in Thailand it is first necessary to know how the key users of TBL perceive it.

1.2 Problem Statement

The traditional approach to learning in Thai universities is characterized by a lack of student participation in learning, few opportunities for interpersonal relationships, and little requirement for students to seek knowledge by themselves (Polsaram, 2001). In Thailand, there has been a tradition of working individually and of following the leader (Jamornmarn, 1996). This tradition has meant that Thai students' ability to use team work and solve problems is very weak (Jongrungreang & Vinijkul, 2001; Thonglert, 2007). Implementing TBL in universities, therefore, presents challenges particularly given that little is known about the use of this approach in Thailand. In addition, as

Thompson et al. (2007) observed, little work has been done to identify the factors related to the implementation of TBL in general.

1.3 Purpose of the Study

The objectives of the study were as follows:

1. To identify Thai instructors' perceptions of the factors affecting TBL in universities.
2. To identify Thai students' perceptions of the factors affecting TBL in universities.
3. To compare the differences between Thai instructors' and students' perceptions of the factors affecting TBL in universities in Thailand.

1.4 Research Questions

The research questions guiding the study were as follows:

1. What are Thai instructors' perceptions of the factors affecting TBL in universities?
2. What are Thai students' perceptions of the factors affecting TBL in universities?
3. How do Thai instructors' perceptions differ from students' with regard to the factors affecting TBL in universities?

1.5 Scope of the Study

1. Population and Sample

1.1 The population in this study was made up of 391 instructors and 288 fourth year students from the faculties of Industrial Education at six universities in Bangkok metropolitan area. These universities were King Mongkut's University of Technology Thonburi, King Mongkut's Institute of Technology Ladkrabang, King Mongkut's University of Technology North Bangkok, Rajamangala University of Technology Thanyaburi, Rajamangala University of Technology Phra Nakorn, Rajamangala University of Technology Krungthep Thailand. The population included no students from King Mongkut's University of Technology North Bangkok and Rajamangala University of Technology Krungthep.

1.2 The sample in this study was selected by random selection and comprised 270 out of 391 instructors and 288 out of 381 fourth year students from faculties of

Industrial Education in six universities in the Bangkok metropolitan area. These universities were King Mongkut's University of Technology Thonburi, King Mongkut's Institute of Technology Ladkrabang, King Mongkut's University of Technology North Bangkok, Rajamangala University of Technology Thanyaburi, Rajamangala University of Technology Phra Nakorn, Rajamangala University of Technology Krungthep Thailand. The sample included no students from King Mongkut's University of Technology North Bangkok and Rajamangala University of Technology Krungthep because a change in the teaching program across the country had taken place. The change meant that the students were required to take a four year course that included one year of teacher training. This newly launched curriculum in Industrial Education resulted in several universities suspending the offering of this program for some time.

2. TBL consists of three parts as follows:

2.1 Pre-classroom consists of one factor, namely:

- Instructional Design

2.2 In-classroom consists of six factors, namely:

- Authentic Assessment
- Accountability
- Active Learning
- Responsibility
- The Value of Team
- Facilitation

2.3 Post-classroom consists of two factors, namely:

- Problem Solving
- Knowledge Construction

3. Thai instructors' and students' perceptions of the factors affecting TBL in universities in Thailand which were analyzed by factor analysis using Varimax method and then confirmed by structural equation modeling with LISREL™.

1.6 Limitations

1. The study's context was limited to universities in the metropolitan area of Bangkok in Thailand. The questionnaire was predetermined and the respondents were limited in number. If students and instructors had been given open-ended questions, it is possible that they may have identified a different set of factors as important.

2. The results of the questionnaire were obtained from students in faculties of Industrial Education, but the responses might have been different had students in other faculties been surveyed.

1.7 Definitions of Key Terms

a. Team-Based Learning or TBL refers to the theory developed by Larry Michaelsen which consists of the steps of teaching and learning TBL. These are: pre-classroom; in-classroom; and post-classroom.

b. Pre-classroom refers to the initial steps of teaching and learning TBL which includes instructional design.

c. Instructional Design refers to the ability of instructors to act as both designers and managers of the whole process; to divide the contents of instruction into units consisting of two-four lessons; to provide students with guidance and information on how to form a team; and to explain the benefits of TBL.

d. In-classroom refers to the second stage or during classroom learning which includes authentic assessment; accountability; active learning; responsibility; the value of team; and facilitation.

e. Authentic Assessment refers to the ability of instructors to use the individual readiness assurance test (I-RAT) from their assignment to check students' knowledge and the group readiness assurance test (G-RAT) which involves the same questions as those used for the individual readiness assurance test (I-RAT) to check the consensus of the group's knowledge; and to check the results from the individual readiness assurance test (I-RAT)* and group readiness assurance test (G-RAT) when they have finished their assignment to compare the scores of each team.

f. Accountability refers to the ability of students to devote time and effort to include all team members when working together; to take responsibility for initiating and seeking the content of the subject; to share responsibilities within a team; and to prepare themselves before group work.

g. Active Learning refers to the ability of the students to build morale and encourage each other during discussions; to participate in thinking, discussing, and making decisions; and to support one another in thinking positively during their team discussions.

h. Responsibility refers to the ability of instructors to gather information about the personalities of students and the errors they make; to allocate students with both potential and weaknesses to each team; and to allow students to share responsibilities within a team; to participate in team meetings outside of class; and to be punctual for class attendance.

i. The Value of Team refers to the ability of students to learn about the effectiveness and efficiency of TBL; to appreciate the value of 'team' by experiencing success from collaboration; and to learn together in accordance with democratic values.

j. Facilitation refers to the ability of students to observe the progress of team behaviors such as greater participation during discussion; to express their view by giving guidance on the points which are confusing for students; and to help solve problems faced by other team members.

k. Post-classroom refers to the third stage or the post classroom stage which includes problem solving and knowledge construction.

l. Problem Solving refers to the ability of students to apply knowledge to solve problems in new and different situations in daily life by devoting time and effort while working together in teams.

m. Knowledge Construction refers to the ability of the students to cultivate sustainable learning; to seek knowledge by themselves to make a decision; to learn together in accordance with democratic values; to check the accuracy and verification of bodies of knowledge from TBL; to brainstorm opinions from various people to solve difficult and challenging problems; and to initiate synergy through TBL.

n. Thai universities refers to King Mongkut's University of Technology Thonburi, King Mongkut's Institute of Technology Ladkrabang, King Mongkut's University of Technology North Bangkok, Rajamangala University of Technology Thanyaburi,

Rajamangala University of Technology Phra Nakorn, and Rajamangala University of Technology Krungthep Thailand.

o. Thai instructors refers to instructors from the faculties of Industrial Education in King Mongkut's University of Technology Thonburi, King Mongkut's Institute of Technology Ladkrabang, King Mongkut's University of Technology North Bangkok, Rajamangala University of Technology Thanyaburi, Rajamangala University of Technology Phra Nakorn, and Rajamangala University of Technology Krungthep Thailand.

p. Thai students refers to fourth year students from the faculties of Industrial Education in King Mongkut's University of Technology Thonburi, King Mongkut's Institute of Technology Ladkrabang, Rajamangala University of Technology Thanyaburi, Rajamangala University of Technology Phra Nakorn Thailand. Thai students included no students from King Mongkut's University of Technology North Bangkok and Rajamangala University of Technology Krungthep.

