

**EVALUATION OF A THEORETICAL STRUCTURED
ACADEMIC CONTROVERSY MODEL TO SEE ITS
IMPACT ON THE PROBLEM-SOLVING SKILLS OF
UNDERGRADUATES UNDERTAKING
A THAI LITERATURE COURSE**

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the requirements of Nottingham Trent University
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Abstract

This research was necessary as Thai B.Ed. students are not meeting the educational standards to progress onto their chosen careers. The Structured Academic Controversy Model (SACM) is based on the concept of collaborative learning, that is, learning by sharing and working together in small groups. The research aimed to evaluate the SACM and its impact on Thai B.Ed. students' problem-solving skills in the context of a Thai literature course.

Research participants were 72 Thai undergraduates undertaking the B.Ed. programme (Thai major) at Capital City University (pseudonym) in Bangkok, Thailand. These students were matched by gender, religious affiliation (Buddhist and Muslim students) and domicile. Then, they were randomly divided into two groups: experimental and control. The experimental group was taught 14 lessons designed following the SACM. The control group was taught 14 lessons following conventional teaching methods. Prior to the experiment in the quantitative phase, the two groups were tested via a problem-solving skills test and questionnaire. They were tested again after 14 weeks. In preparation for the qualitative phase, eight students within each of the two groups were randomly selected to share opinions within focus group discussions after addressing the questionnaire in the aforementioned quantitative phase. Quantitative and qualitative data were then compared and contrasted as an integral part of the interpretation phase of the research findings.

The findings showed that the SACM supported the B.Ed. students' problem-solving skills, that is, the process of analysing a problem and selecting and evaluating an appropriate solution. However, the SACM was limited when attempts were made to promote the appreciation of Thai literature and the application of its themes and ideas in everyday life situations. Some of the limitations of the research were that the number of research participants was overly small in comparison with the size of the target population. They were also not strictly representative of Thai B.Ed. students in general. Hence, it was difficult to make a case for the generalisation of research results to other contexts. The study could be further considered regarding SACM activities and class size, the reading of Thai literature and the improvement of teacher-student relationship.

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Abbreviations

B.A.	Bachelor of Arts
B.Ed.	Bachelor of Education
CREC	College Research Ethics Committee
EQA	Educational Quality Assurance
IOC	Item-Objective Congruence
NTU	Nottingham Trent University
OHEC	Office of the Higher Education Commission
ONESQA	Office of National Education Standards and Quality Assurance
PGCE	Post-Graduate Certificate in Education
PhD	Doctor of Philosophy
SACM	Structured Academic Controversy Model
SPSS	Statistical Package for the Social Sciences
TCAS	Thai University Central Admissions System
TCT	Teachers' Council of Thailand
TQF	Thai Qualifications Framework
TQF03	Thai Qualifications Framework 03 (a course specification)
UK	The United Kingdom

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction

Over the past two decades, higher education in Thailand has experienced profound changes in order to take account of the requirements of the Thai Qualifications Framework (TQF) and the Educational Quality Assurance System. The Office of the Higher Education Commission (2016) informs us that a competency-based curriculum has now been adopted in Bachelor degree programmes. Thai undergraduate students are expected to be able to apply knowledge and skills in their studies and future careers. However, the Office of the Higher Education Commission (2016) has found that such students were not able to improve their learning ability, critical thinking and problem-solving skills in order to meet the new standards (Pitiyanuwat et al., 2018; Sinlarat, 2015a). A current major requirement within a Bachelor of Education degree (B.Ed.) at Capital City university, a pseudonym representing an unnamed university in a major city in Thailand, is now the acquisition of problem-solving skills. According to the Educational Quality Assurance Agency, Faculty of Education, Capital City University (2016), newly enrolled B.Ed. students were unfamiliar with problem solving activities. They were not able to complete group assignments regarding group negotiation and creative conflict resolution. Moreover, the students were often absent from B.Ed. classes. These drawbacks can be considered in relation to the culturally strong traditional studying techniques and the educational system of Capital City University.

According to the 1997 Act of Capital City University, the educational system of Capital City University has been administered through the Academic Marketplace policy. This system was comparable to *'open admission which offered educational opportunity for the masses'* (the Office of the President, Capital City University, 2015b, p. 13). In other words, this means that those individuals who graduated from an upper secondary school

could therefore apply for a place on a Bachelor degree programme without sitting an entrance exam. Additionally, the educational system was well known for its characteristics of having the lowest tuition fees (approximately £30.96 for total credits in an academic semester) and minimal requirements of classroom attendance (Admissions and Records Office, Capital City University, 2014). On account of this educational system, there was a considerable variety of undergraduate student participants, as might be expected, with different ages, religious affiliations (i.e. Buddhist and Muslim students), from different regions of Thailand (mostly southern and north-eastern), and part-time and full-time workers (the Office of the President, Capital City University, 2015a). Those students were looked upon as individual learners.

Tanchaisak and Wattanapanit (2016) argued that most students learned life skills and an academic subject as individual learners and that they had to live and learn by themselves rather than receiving any help from others. As a necessity, these students need to be more self-managed (Yamsaeng, 2015). However, the aforementioned individual characteristics were probably inadequate to address the University's learning outcomes in terms of TQF. In addition, problem-solving skills were a requirement of the B.Ed. programme's learning outcomes based on TQF and the educational standards of Teachers' Council of Thailand (TCT). According to the Educational Quality Assurance Agency, Faculty of Education, Capital City University (2016), the B.Ed. students were confused and silent when given opportunities to discuss conflict resolution in a group assignment. The students preferred to complete an individual task rather than a group task. This was very relevant with respect to students classed as individual learners (Supa-apichatwong, 2013).

For the purpose of addressing the University's learning outcomes, an advisory system was provided for academic guidance to all students. All lecturers were academic advisors during each semester (the Office of the President, Capital City University,

2015b). However, the advisory system seemed ineffective in improving the B.Ed. students' problem-solving skills (Moonsadang, 2014; Tanchaisak and Wattanapanit, 2016). The Educational Quality Assurance Agency, Faculty of Education, Capital City University (2016) showed that although there was an advisory system, B.Ed. students still relied on routine approaches, namely traditional learning methods as individual learners. Hence, there was unlikely to be an improvement in problem-solving skills, a lack of which would not address the B.Ed. programme's learning outcomes.

In Thai education in 2008, Thai literature was only part of a compulsory subject in the Thai Basic Education Curriculum. Thai students became aware of literature at the elementary level and became more familiar with it at the upper secondary level (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2009). This is still the current situation in basic education. Meanwhile, Thai literature as a compulsory or optional subject could be found on the Bachelor programme (Thai major) offered by the Faculties of Arts and Education (the Office of the Higher Education Commission, 2016). Although Thai literature could be accessed or studied over an extensive educational period, there was no innovation in teaching it, as the teaching style involved, at best, lecture, translation and analysis (Nagavajara, 2010; Thongaht, 2013).

In the B.Ed. programme (Thai major) of Capital City University, those teaching methods were employed in literature classes. They were also applied to achieve the programme's learning outcomes (the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016). Nonetheless, the teaching methods were not able to support learning about Thai literature. Nagavajara (2010) showed that most teachers would like their students to investigate literature's components in more depth rather than understand the coherence of the literature. For example, students were taught to paraphrase or translate poems and categorise a kind of aesthetic language without any

question about a relationship between the aesthetic language and an author's objective or main idea (Changkhwanyaun, 2017). Therefore, B.Ed. students often looked bored in a literature class because they did not see the whole picture of the literature (Delaram et al., 2017; Devayasuvan, 2011; Rahman et al., 2016). In addition, they lacked opportunities to share different ideas in order to improve academic achievement, critical thinking and problem-solving skills (Supanvanit, 2014).

Ezeokoli (2016) claimed that teaching literature should be developed by educational innovation. New teaching ideas and procedures could develop students' learning in a literature class. The Structured Academic Controversy Model (SACM) was created by Estes and Mintz (2016). The SACM was based on collaborative learning, which was learning by sharing, working together and helping each other in small groups. Students also discussed and debated learning topics to enhance their knowledge and skills. This could arguably lead to improving academic achievement, thinking, conflict resolution and problem-solving skills (Johnson and Johnson, 2014; Johnson, 2015).

However, the SACM was a new departure in teaching for Thai students. This teaching model was based on conceptual American teaching methods and was very different to Thai learning practices, namely, the preferred culturally influenced approaches to understanding and learning (Prangpatanpon, 2015). Gunawan (2016) stated that Thai students were traditionally taught to obey and respect adults, especially their parents and teachers. If students argued with an elder, they would be looked upon as aggressive no matter whether they were correct or incorrect. Additionally, if they disagreed with an older teacher or a class associate, a silent answer was likely to be their first choice (Crocco, 2018). These behaviours can also be seen in B.Ed. students (Thai major) at Capital City University.

According to the Educational Quality Assurance Agency, Department of Curriculum and Instruction, Capital City University (2017), the culturally passive studying technique of those students can be seen in Thai literature classrooms. The B.Ed. students were not confident to share their opinions with teachers and classmates. A smiling answer was also often used, but it did not clearly show their thoughts and feelings (Sandmaung and Khang, 2013). On account of these limiting behaviours, students ought to improve their training methods in terms of assertiveness learning activities e.g. group discussion (Sinlarat, 2015a).

These student behaviours seemed to be in adverse contrast with SACM activities, which focused on discussion and debate, because students would keep any ideas to themselves rather than give opinions (Johnson, 2015; Slavin, 2014). In spite of this, students were given support to enhance their higher thinking and problem-solving skills which in turn would improve the quality of their Thai education. According to the Office of the Higher Education Commission (2019a), group work, discussion and debate were suggested for B.Ed. courses. These methods were important with regard to Thai literature, could improve understanding of the literature itself and enable the application of literature ideas to everyday life situations. Hence, the SACM was adopted to teach the B.Ed. students within this research.

Additionally, studies have been conducted of academic controversy strategy (Bruen et al., 2016), academic controversy technique (Farzaneh and Nejadansari, 2014; Jacob, 2010; Santicola, 2013), academic controversy method (Komara and Sriyanto, 2018; Lo and Adams, 2018), and academic controversy teaching model (Avery et al., 2014) in relation to the fields of social studies, politics and teaching English as a foreign language. However, there has been very little research into the effectiveness of the SACM with respect to the teaching of Thai literature – implying a gap in current

knowledge. This research, therefore, intended to fill this gap by evaluating the SACM and its impact on Thai B.Ed. students' problem-solving skills.

1.1 Research aim and objectives

The aim of this research is to evaluate the theoretical SACM and its impact on Thai B.Ed. students' problem-solving skills when taking a Thai literature course. To clarify the research aim, it can be divided into the following specific research objectives as shown:

- 1) To identify Thai B.Ed. students' problem-solving skills with regard to opportunities and challenges to improve the skills required for solving problems in everyday life situations
- 2) To apply the SACM to learning about Thai literature, especially within a B.Ed. course
- 3) To investigate SACM and its impact on B.Ed. students' problem-solving skills when studying Thai literature. The research concentrates on the assessment of SACM within Thai educational and cultural contexts regarding Thai undergraduate students, contents of Thai literature, and communication in the Thai language.

1.2 Research questions

The research consisted of the following research questions:

- 1) Why do Thai students (B.Ed., Thai major) find it difficult to develop the required problem-solving skills?
- 2) What are the effects of the SACM on the problem-solving skills of B.Ed. students studying Thai literature?

1.3 Personal background of the researcher and research motivation

After graduating in B.Ed. (secondary education and Thai major) and M.Ed. (teaching the Thai language) programmes at Chulalongkorn University in Bangkok, Thailand, the researcher had been a Thai language teacher for two years in Vajiravudh College, which is a private boarding school in Bangkok. In his teaching experience, students frequently asked why they read Thai literature. A greater emphasis could be given to the reading of Thai literature rather than the mere achievement of learning outcomes. Since 2011, the researcher has been a lecturer in the field of the Thai language at the Faculty of Education, Capital City University in Bangkok, Thailand. Although the researcher had the responsibility to teach B.Ed. students (Thai major) and supervise pre-service teachers, the aforementioned question of reading Thai literature was still found within Thai literature classrooms. On account of this question, it led the researcher to consider the research problem with respect to learning about Thai literature.

Additionally, from the researcher's position as a Buddhist Thai male lecturer, student participation in Thai literature courses was seen with regard to group preference depending on religious affiliations (Buddhist and Muslim students) from different regional areas of Thailand. B.Ed. students preferred to do individual assignments rather than group tasks. Although they were confused when reading and interpreting Thai literature, they were not confident to discuss this with a lecturer. In my opinion, these behaviours were not conducive to the skills required to solve a problem by following the requirements of the TQF and the preparation for their field experience in the final year of study (the Office of the Higher Education Commission, 2019a; Teachers' Council of Thailand, 2018).

Moreover, although the researcher had taught the B.Ed. students for five years before studying at PhD level in the UK, their academic and cultural backgrounds were unfamiliar to him, as were their difficulties in everyday life as rural students in Bangkok.

These characteristics could have an effect on their study on the B.Ed. programme (Thai major) (Sinlarat, 2015a; Tanchaisak and Wattanapanit, 2016). On account of the drawbacks with regard to learning about Thai literature in addition to the B.Ed. students' lack of problem-solving skills, this led to my inspiration and motivation to undertake this research in order to develop student academic achievement and to better prepare B.Ed. students for future careers as schoolteachers.

1.4 Scope of the study

For this research, research participants were 72 Thai students who studied on the B.Ed. programme (Thai major) in the second year at Capital City University in Bangkok, Thailand. In order to investigate the SACM and its impact on Thai B.Ed. students' problem-solving skills, the students were divided into two groups, namely Experimental and Control. Prior to the intervention, these two student groups were tested using a problem-solving skills test and a questionnaire. They were tested again after 14 weeks. Eight students within each of the two focus groups were randomly selected to share opinions within focus group discussions after answering the questionnaire. The duration of the experiment was between 4th July and 4th October 2017. The two student groups accessed identical content based on six classic Thai literary texts.

1.5 Definition of key terms

Key terms within this research are demonstrated by the following brief definitions:

The Structured Academic Controversy Model (SACM): This term is defined as an American teaching approach that was created by Estes and Mintz (2016). The SACM consists of seven components which are based on the concept of collaborative learning with regard to discussion and debate activities within small student groups.

Conventional instruction: This term refers to traditional teaching methods which are generally applied in a Thai literature classroom. The methods comprise lecture, using

question-answer, explaining old vocabulary and idioms, paraphrasing and/or translating poems, interpretation, analysis and group assignments (Changkhwanyaun, 2017; Devayasuwan, 2011; Thongaht, 2013).

Problem-solving skills: This term can be defined as skills required to solve problems encountered in everyday life situations. Problem-solving skills are applied in this research by following the problem-solving concept created by Robertson (2017). The concept consists of four components with regard to indicating a problem, analysing a problem, creating solutions and selecting an appropriate solution and evaluating it.

B.Ed. students: This term is defined as 72 Thai undergraduates who studied in a second year B.Ed. programme (Thai major) in the first academic semester in 2017 of Capital City University in Bangkok, Thailand.

1.6 Organisation of the study

This research consists of seven chapters. The current introductory chapter offers an overview of the research by considering its background and associated problems, including reasons for undertaking the research.

Chapter Two provides the research context in association with the higher education system of Thailand. Within the chapter, the historical and administrative background of Thai higher education is explained in relation to studies in the B.Ed. programme. Moreover, gaining a teacher licence and the motivation to be a schoolteacher are considered in relation to opportunities and challenges. The vagueness of the term ‘innovation’ is also discussed with regard to its different interpretation within Thai education.

Chapter Three presents a review of literature with regard to research participants, Thai students’ problem-solving skills and learning about Thai literature. The concept of

SACM is also considered in relation to teaching Thai literature. Finally, the conceptual framework and research gaps are demonstrated in connection with the research area.

Chapter Four describes the research methodology. Initially, research paradigms and research design are explained as guidelines to undertake the research. Research participants, sample size and research sampling are also described with regard to the research area at Capital City University in Bangkok, Thailand. Moreover, the methodology adopted is considered with respect to research instruments, pilot study, data collection and data analysis procedure. Finally, research ethics and the validity and reliability of research data are also presented.

Chapter Five concentrates on data analysis. Quantitative research data, namely scores resulting from the problem-solving skills test and the attitude questionnaire were calculated by means of statistical analysis. Moreover, the internal consistency of the questionnaire is assessed to show the extent of present its reliability. For qualitative data resulting from focus group discussion, themes and subthemes are illustrated by way of a comparison table in order to indicate student opinions. Quotations are also given as evidence to support themes.

Chapter Six provides a discussion of research findings. Quantitative and qualitative research data are compared and contrasted within each element by means of comparison tables. In an attempt to address research questions, the findings are also interpreted with regard to the literature review in Chapters Two and Three.

Chapter Seven demonstrates an overall conclusion of research findings. The original contribution to new knowledge is considered in relation to Thai educational and cultural contexts. Recommendations for teaching Thai literature and implications for further study are offered, as well as a consideration of the limitations of the research.

1.7 Summary

This introductory chapter has provided the general background of this research. Research problems are explained with regard to Thai B.Ed. students' problem-solving skills and learning about Thai literature. The research aim, objectives and questions are presented as an initial direction for this study. In addition, research motivation is described in order to understand reasons for undertaking the research at Capital City University in Bangkok, Thailand. Finally, the chapter presents the scope of the study and definition of key terms. To obtain an insight into the research area, the higher education system of Thailand is clarified in the next chapter.

CHAPTER TWO

THE HIGHER EDUCATION SYSTEM IN THAILAND

2.0 Introduction

In an attempt to understand the general background of this research, conducted in a Bachelor of Education (B.Ed.) programme in Thailand, this chapter is to present an overview picture of the Thai higher education system with regards to the B.Ed. programme. On account of Thai higher education policy and the reduction of the number of college-aged students over a ten-year period, the B.Ed. programme has confronted challenges with a view to the improvement of the educational quality offered to the teaching profession. The chapter provides four main sections as clarification of Thai higher education policy in relation to the B.Ed. programme. Initially, the historical and administrative background of Thai higher education is described in section 2.1. Educational requirements for the B.Ed. programme are clarified in section 2.2 in relation to government agencies responsible for the accreditation of the B.Ed. programme and the teacher licence. Expectations and motivation to be a schoolteacher are considered in section 2.3 with respect to the Thai government educational policy and traditional ideas involved with Thai culture. Ultimately, the vagueness of the term 'innovation' in section 2.4 is discussed in connection with Thai higher education policy and its practical application in B.Ed. classrooms.

2.1 Background of Thai higher education

With regard to the structure of higher education in Thailand, 156 higher education institutes, namely universities and colleges, are under the supervision of the Department of the Office of the Higher Education Commission (OHEC), Ministry of Higher Education, Science, Research and Innovation (the Office of the Higher Education Commission, 2019b). At the undergraduate level, Bachelor degree programmes generally provide four years of study. Five years of professional qualification study are

offered in the fields of architecture, graphic arts, sculpture and pharmacy. Six years of study are provided in the fields of dentistry, veterinary science and medicine. For the post-graduate level, Master degree programmes generally offer two years of study. Doctorate degree programmes normally require at least three years of study (Sinlarat, 2015b). According to the Office of the Higher Education Commission (2019b), Thai higher education institutes are currently categorised in accordance with their particular educational system and administrative characteristics (Crocco, 2018) as is shown by the following table.

Table 2.1: Types of Thai higher education institute

Type of Thai higher education institutes	Sub-groups of Thai higher education institutes	Number of institutes
Public autonomous universities	1) Universities	18 (11.54%)
	2) Rajamangala Universities of Technology	3 (1.92%)
	3) College Institutes	5 (3.21%)
	<i>Total</i>	26 (16.67%)
Public universities (under the administrative control of the Thai government)	1) Universities	8 (5.13%)
	2) Rajabhat Universities	38 (24.36%)
	3) Rajamangala Universities of Technology	9 (5.77%)
	4) College Institutes	3 (1.92%)
	<i>Total</i>	58 (37.18%)
Private universities	1) Universities	42 (26.92%)
	2) College Institutes and Technology Institutes	30 (19.23%)
	<i>Total</i>	72 (46.15%)
Sum		156 (100%)

(the Office of the Higher Education Commission, 2019b)

As shown in Table 2.1, Thai higher education institutes are classified into three major university groups in terms of (1) public autonomous universities which have their own budget management and flexible administration, (2) public universities under the administrative control of the Thai government and (3) private universities. Similarly, all three higher education institute groups consist of both types between universities and colleges. A total of 21 (13.46 per cent) autonomous universities in the first group compares with 55 (35.26 per cent) government managed public universities in the

second. However, apart from Rajabhat Universities which are former teacher colleges and Rajamangala Universities of Technology which are former vocational colleges, 18 public autonomous universities (11.54 per cent) are more than 8 public universities (5.13 per cent). Although Thai higher education institutes comprise different groups with their unique characteristics, most of them have similar faculties and offer akin degree programmes in the field of Social Sciences e.g. Business Management, Marketing and Communication Arts (Hallinger, 2014). Thai universities have hence been faced with competitive challenges when trying to achieve required student enrolment numbers in their own offered programmes (Plungpongpan et al., 2016).

Bausuwan (2018) claims that the decline in the number of student entrance applications via the Thai University Central Admissions System (TCAS) has been a serious issue for tertiary institutes. Registration with the TCAS, is the normal route for placement on a Bachelor degree course provided by public universities. It consists of five registration rounds, with most information showing approximately 200,000 unfilled admission places (Zilli, 2019). Student enrolment on Bachelor degree courses offered by private universities has also notably decreased over a five-year period (Mala, 2018a).

In fact, over four thousand degree programmes offered by Thai universities and colleges struggled to fill student places on their courses because of the demographic reduction trend of college-aged students (Mala, 2018b). According to the Office of the President, Capital City University (2015a), Capital City University has encountered this issue for five years, especially the degree programmes in education, humanities and politics. As a result, Thai tertiary institutes have had to be highly competitive in order to maintain and perhaps increase the number of students enrolled in their offered degree programmes.

Thai graduates have not been able to satisfy the requirements of the labour market with the practical application of their new found knowledge and skills. Rhein (2016) argues that on account of the mere content-based approach adopted in Bachelor degree programmes, Thai graduates are not able to apply their theoretical knowledge and competency to assignments in the workplace (Sandmaung and Khang, 2013; Mala, 2019). Hence, an apprenticeship is often extended from the normal three month length to six months or even a year in order to improve Thai graduates' hands-on experience. This limitation has necessitated the provision by the OHEC of Thai educational standards for degree programmes according to the TQF and the Educational Quality Assurance (EQA). As a result, degree programme learning outcome requirements and indicators were changed following the new education policies (Buasuwan, 2018). Tests and assessments required for undergraduates are now arranged in relation to the TQF.

Additionally, in an attempt to improve the quality of a degree programme in accordance with the EQA, university lecturers are required to do research and publish based on their pedagogical responsibilities in a degree programme. However, the development of Thai higher education following the TQF and the EQA has mainly relied on paperwork assessments (Sinlarat, 2015b). As yet there has been scant verification to show that the development of this education policy is overcoming Thai universities' issues and is meeting the requirements of the labour market (Mala, 2018b).

The inconsistency of the educational policy and administrative system overseen by successive Thai governments is an additional challenge for Thai tertiary institutes. Educational development and reform are often claimed as the main reason behind change to Thai educational policy and administration (Rhein, 2016). For the past two decades, the administrative structure of Thai higher education has been the responsibility of different government agencies. Initially, it was under the auspices of the Ministry of University Affairs. Since then higher education has been under the

supervision of the OHEC with input from 1) the Prime Minister's Office, 2) the Ministry of Education and 3) the Ministry of Higher Education, Science, Research and Innovation (established in 2019).

Over a period of eighteen years, Thailand has seen 21 Ministers of Education each of whom provided different education policies according to their individual judgements without particular reference to their predecessors (Mala, 2019). Lao (2018) claims that Education ministers' educational ideas as a whole created uncertainty in Thai higher education policies and standards in relation to the EQA assessment criteria and undergraduates' learning outcomes (Prangpatanpon, 2015). This drawback had an adverse effect on preparation for student development for the duration of study in degree programmes.

Solutions to the challenges of Thai higher education have been sought by policy-makers and educators under different Thai Prime Minister's regimes but most seemed to be lacking in practical application (Hallinger, 2014; Sinlarat, 2015a). As far as collaboration between Thai policy-makers and stakeholders, (lecturers, students, parents and representatives of the labour market) is concerned, few opportunities have been forthcoming to share solution ideas (Buasuwan, 2018; Lao, 2018). Hence only some passive improvement in Thai higher education has been evidenced.

2.2 Educational requirements for a Bachelor of Education (B.Ed.) programme

To qualify as a schoolteacher in Thailand there are two optional teacher education programmes offered by Thai universities, namely, a B.Ed. programme and a 1-year graduate diploma in teaching comparable to a Post-Graduate Certificate in Education (PGCE) (Siribanpitak, 2018). As regards the background of research participants, this research concentrates only on the Thai B.Ed. programme in order to understand those characteristics and requirements provided by the OHEC. Within this section, two

subsections give explanation. In consideration of the accreditation of the B.Ed. programme, government agencies are clarified in 2.2.1 in relation to their responsibilities. A teacher licence topic is discussed in 2.2.2 to highlight the opportunities and challenges provided for Thai B.Ed. students.

2.2.1 Government agencies for quality control of the B.Ed. programme

The 1999 National Education Act of Thailand gives government agencies an important role as an assessor of the B.Ed. programme in terms of the OHEC, the Office of National Education Standards and Quality Assessment (ONESQA) and the Teachers' Council of Thailand (TCT). Each individual university council has responsibility for the university's student enrolment and the running of the degree programmes and their cancellation if required (the Office of the Higher Education Commission, 2016, 2019a). Details are shown in the following diagram.

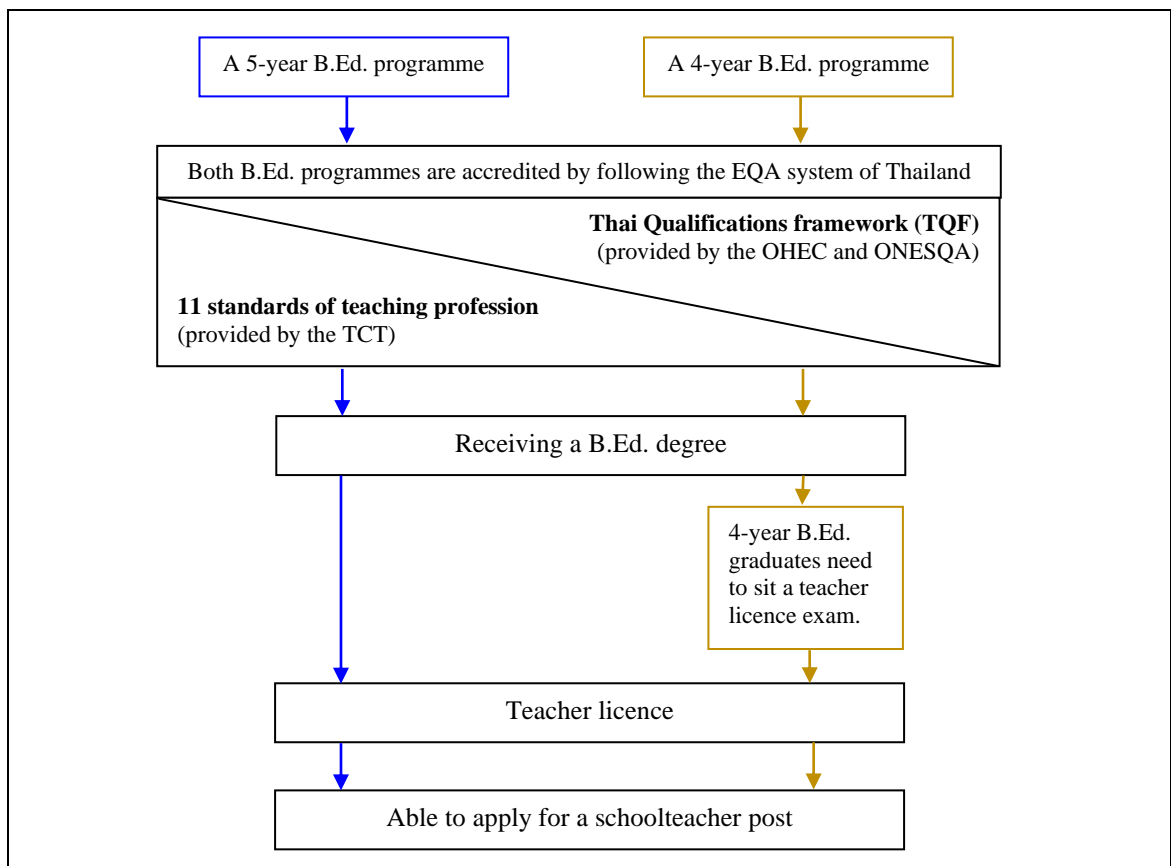


Figure 2.2.1 the accreditation of the B.Ed. programme in Thailand

As shown in Figure 2.2.1, after the sanctioning the opening of student enrolment in a B.Ed. programme the university council will inform the OHEC within thirty days. Then, the B.Ed. programme is approved by the TCT if it meets the eleven teaching profession standards. Ongoing assessment of a B.Ed. programme is required to ensure that it is following the EQA criteria. This is done in accordance with the OHEC every year and in accordance with the ONESQA every three years. If B.Ed. accreditation is fully approved by following this process, five-year B.Ed. students will be in a position to receive a teacher licence after their graduation (Teachers' Council of Thailand, 2018).

Accreditation of the B.Ed. programme is based on an educational policy of decentralisation (Siribanpitak, 2018). Thai universities have authority to open their own B.Ed. programme as well as to select appropriate contents and teaching approaches for their students (Tantichuech, 2017). However, B.Ed. quality control by the Thai government encounters challenges in connection with assessment criteria set by different government agencies and the condition to provide a teacher licence at the end of the five-year course.

In Thailand there are now two types of B.Ed. programme. A five-year course includes the award of a teacher licence on satisfactory completion whereas a four-year course does not include this award and implies that additional study may be required (Teachers' Council of Thailand, 2018). This topic is discussed further in the next subsection. The accreditation process of the two types is to enhance the educational quality of the B.Ed. programme as a professional standard in education (Thongthew, 2014). Considerations to be born in mind by students at enrolment are the differences in expenditure between the five and four-year study programmes, differences in opportunities for employment as a schoolteacher and how their choice might enhance or reduce opportunities for further study.

2.2.2 Teacher licence: a study goal and its challenges in the B.Ed. programme

Following TCT regulations, a teacher licence is held to be a requirement for every schoolteacher in Thailand. According to Teachers' Council of Thailand (2018), the main objective in support of TCT regulations is the improvement of educational standards of the teaching profession. A schoolteacher licence guarantees that the holder is sufficiently qualified for teaching (Siribanpitak, 2018). Even at the basic education level of early childhood the possession of a teacher licence gives some of the quality assurance required by elementary and secondary schools in Thailand (the Office of the Higher Education Commission, 2019b). The possession of a teacher licence is a vital part of education in every school in Thailand.

In fact, the teacher licence has become one of the top reasons for inducing Thai upper-secondary students to enrol in a B.Ed. programme. At the end of every five-year programme the student receives a teacher licence – guaranteed (Prachagool et al., 2016; Teachers' Council of Thailand, 2018). But, the obtaining of a teacher licence does present challenges for the student – the five-year programme is an extensive duration of study whereas at the end of the four-year programme there is no included provision of a teacher licence.

In the five-year B.Ed. programme greater emphasis is given to the requirement of a teacher licence because of the enhanced job opportunities thereby afforded. B.Ed. programmes are not the most sought after by Thai students but they are very attractive on account of available employment opportunities (Siribanpitak, 2018). The implication is that students may be attracted to a B.Ed. programme for questionable reasons. They want a guaranteed route to pass an exam, get a teacher licence and then a job but perhaps lack a real love of education and teaching, a shortcoming which can result in

an inadequate pedagogical competency, characteristic of their career as a schoolteacher (Sangwaree, 2017; Thongthew, 2014).

Because of the inclusive teacher licence of the five-year B.Ed. programme, students tend to concentrate on merely graduating with a pass, losing out on the maximum benefit they might derive from their education. For this reason, the five-year course is to be phased out over the next five years (the Office of the Higher Education Commission, 2016). The latest four-year B.Ed. programme provided since March 2019 might require the student to engage in further studies after graduation if he or she wishes to obtain a teacher licence. The shorter four-year course learning period and potential credits are advantageous but that should be considered against the fact that there is no absolute guarantee of obtaining a teacher licence even after the possible completion of further studies.

Graduates of the new four-year B.Ed. course might need to pay for additional state or private tuition offered in accordance with Thai educational policy in order to obtain a teacher licence (Prachagool et al., 2016). Enrolment for the five-year course has now been phased out but it has not put an end to the simultaneous existence of two distinct types of B.Ed. students – those who automatically receive a teacher licence on graduation and those who do not. This highlights a problem that the offered B.Ed. programme may not now be seen as attractive and hence Thai universities will need to meet a serious challenge to increase student enrolment numbers for the B.Ed. programme or even just to maintain them.

The participants in this research were on the five-year B.Ed. programme. Receiving the teacher licence was influential on the aim of the study on the B.Ed. programme. This topic is discussed later as shown in the qualitative research data. After obtaining the teacher licence, the B.Ed. graduates are able to apply to be a schoolteacher. Apart from

the welfare and pension offered by the Thai government, all schoolteachers in Thailand need to follow the educational policy regarding educational requirements and expectations.

2.3 To be a schoolteacher within the educational policy of Thailand: expectation and motivation

Thailand educational policy is determined within the social and economic development section of the National Strategy for 2018-2037, denominated ‘Thailand 4.0’, and follows previous Thai government policies for the concentration of the agricultural sector (Thailand 1.0), light industries (Thailand 2.0) and heavy industries (Thailand 3.0) (Plungpongpan et al., 2016). Schoolteacher characteristics and responsibilities are determined by following this Thailand 4.0 policy in accordance with the National Strategy, the TQFs 01-07 and the eleven standards of the teaching profession (Chimkaw, 2017). To give an understanding of the Thai government’s expectations for schoolteachers and the B.Ed. programme, the policy is categorised within 1) pedagogy, 2) research and innovation, 3) assessment, and 4) virtues and ethics. These expectations are presented in the following comparison table.

Table 2.3 The Thai government’s expectations of the educational quality of the B.Ed. programme and of schoolteachers

Topic	Thailand’s National Strategy (2018-2037)	Based on the EQA system of Thailand	
	<i>(Teachers should be able to)</i>	TQF (provided by the OHEC and the ONESQA) <i>(The B.Ed. graduates should be able to)</i>	11 standards of teaching profession (provided by the TCT) <i>(The B.Ed. graduates should be able to)</i>
Pedagogy	<ul style="list-style-type: none"> ● have 21st century skills; ● be expertise in their field of study; ● support students in relation to the multiple intelligence theory; ● apply local and international knowledge in classroom; ● and have English communication skills. 	<ul style="list-style-type: none"> ● have 21st century skills; ● teach students by using diverse teaching methods e.g. student centre-based learning, Science Technology Engineering and Mathematics (STEM) and project based-learning; ● work in field experience; ● and have English communication skills. 	<ul style="list-style-type: none"> ● have knowledge and skills according to 11 standards of teaching profession; ● create lesson plans and materials for student learning; ● and work in field experience.

Table 2.3 The Thai government’s expectations of the educational quality of the B.Ed. programme and of schoolteachers (cont.)

Topic	Thailand’s National Strategy (2018-2037)	Based on the EQA system of Thailand	
	<i>(Teachers should be able to)</i>	TQF (provided by the OHEC and the ONESQA) <i>(The B.Ed. graduates should be able to)</i>	11 standards of teaching profession (provided by the TCT) <i>(The B.Ed. graduates should be able to)</i>
Research and innovation	<ul style="list-style-type: none"> ● be an innovator; ● apply research skills in classroom; ● and collaborate with their students to create an innovation. 	<ul style="list-style-type: none"> ● have research skills; ● and create/apply an educational innovation to improve students’ academic achievement. 	<ul style="list-style-type: none"> ● conduct classroom research; ● and apply technology and innovation in classroom.
Assessment	<ul style="list-style-type: none"> ● be evaluated by following the criteria of 21st century skills. 	<ul style="list-style-type: none"> ● be evaluated according to 6 learning outcomes as follow: 1) virtue and ethics, 2) knowledge, 3) intellectual skills, 4) inter-personal relationships, 5) numerical analysis and technology, and 6) pedagogical skills. 	<ul style="list-style-type: none"> ● have knowledge and skills in relation to authentic assessment, formative and summative evaluation.
Virtues and Ethics	<ul style="list-style-type: none"> ● be disciplined and moral; ● be public minded; ● and be good citizens. 	<ul style="list-style-type: none"> ● be tested by providing answers to the Thai teacher aptitude test; ● be teacher’s spirits; ● and be anti-corruption. 	<ul style="list-style-type: none"> ● be a role model of teachers; ● and be based on the professional conduct of teachers.

If the government’s expectations as shown in Table 2.3 are realised, then a notable improvement in the quality of teacher education in Thailand should be forthcoming. The existing policy of preparing smart teachers for Thai students should also have a positive effect (the Office of the Higher Education Commission, 2018). However, there may be a mismatch between government expectations and Thai upper secondary students’ reasons for engaging in a B.Ed. programme with the objective of schoolteacher status.

Schoolteachers in Thailand often see classroom research as an unwarranted paperwork burden over and above their major teaching responsibilities (Crocco, 2018; Faikhamta et al., 2018). There is evidence to show that Thai government educational expectations have been at the root of B.Ed. programme study withdrawals as well as withdrawals in early years from the teaching profession itself (Mala, 2019; Sinlarat, 2015a).

Traditional inducements to be a schoolteacher are well embedded within Thai culture and the welfare benefits offered by the Thai government. In past decades, Thai parents had always hoped and expected their children to be employed as a government officer of some sort – ideally a son would be a policeman and a daughter a school teacher or a nurse (Nakornthap, 2018; Sinlarat, 2015a). These careers were highly respected by Thai people, especially in rural areas of Thailand. A schoolteacher was seen as an intelligent and respected person (called a *'kru'* in the Thai language) within a local community (Sinlarat, 2015a).

Moreover, becoming a schoolteacher was always recognised as the epitome of a Thai child's gratitude for the upbringing of the parents. Additionally, even the status of a teacher's parents improved so that they received free medical-treatment under the privileged government welfare scheme. Although there have been changes to these types of welfare benefits, this traditional concept is well embedded in Thai culture (Phompun et al., 2013).

Along these lines there are even more government welfare initiatives which furnish sound reasons for being a schoolteacher. Siribanpitak (2018) points out that free medical treatment is not just afforded to the schoolteacher, but also to his or her partner and their children. A retirement pension is also provided by the Government. Schoolteachers can also benefit from privileged loans offered by Thai teacher savings and credit co-operatives – yet another inducement to be a schoolteacher. The downside here is that schoolteacher debt has increased dramatically (Crocco, 2018; Prachagool et al., 2016).

Yes, extrinsic motivation is a strong factor in the choice of schoolteacher as a profession (Thongthew, 2014). So much so that there is a tendency for it to overshadow the love for and appreciation of teaching as a prime inducement. On account of a mismatch between a Thai government's expectations and B.Ed. students' personal incentives,

there could now be the arising of a new generation of Thai B.Ed. graduates who also love teaching as well as the perks it brings, but do not want to be a schoolteacher because of routine paperwork burdens and mandatory regulations (Faikhamta et al., 2018; Prachagool et al., 2016). This could portend a future shortage of schoolteachers in Thailand.

2.4 The vagueness of the treatment of innovation within Thai higher education

To be a schoolteacher in Thailand, he or she needs to create or apply an innovation in the classroom. This expectation is also found in Thai higher education. However, the term ‘innovation’ can be differently interpreted. According to Thailand’s National Strategy for 2018-2037, Thai people are expected to create or apply an innovation to support their education and future career in the rapidly changing world of the digital era (the Office of the Higher Education Commission, 2018).

In the view of the Thai government and policy-makers, any innovative ideas and high technology which have been adopted are seen as the bedrock of the development of Thai society in the following of an internationalisation policy (Lavankura, 2013; Rhein, 2016). A major Thailand dictionary defines the term ‘innovation’, according to the Royal Society, as a new idea or approach and/or a creative material (the Royal Society of Thailand, 2011), but the understanding of it by members of the public often varies depending on a personal perception and familiarity.

In Thai higher education policy and regulations documents, we often see written together the three buzzwords of research, innovation and technology. Even though the individual terms are clearly different, we are given to understand that the three words are linked in some way. For example, basic education and research funding in the field of science and technology is highly promoted by Thai government at the expense of the

fields of humanities and social sciences. This can imply that educational innovation only takes place within the framework of technology research. An additional thought is that Thai educational innovation is seen as only supporting digital technology commercial learning products rather than providing theoretical teaching perspectives (Siribanpitak, 2018).

The course specifications of the B.Ed. programme are required to indicate content and learning objectives in relation to an educational innovation (the Office of the Education Council, 2019; the Office of the Higher Education Commission, 2019a). However, the understanding of the definition of innovation is still vague. According to the TQF and the TCT, B.Ed. students are required to create and/or apply an educational innovation in their assignments (Teachers' Council of Thailand, 2018). But these requirements are still unclear when it comes to the intended interpretation of the term 'innovation'. How would an educationalist see innovation in terms of teaching methods, learning activities, teaching materials and the findings of classroom research undertaken involving field experience? In the absence of a clear definition of 'innovation' for the teaching environment, we see innovation merely appearing in terms of technology.

For this research, the application of the SACM in a Thai literature course is not based on technology research. Digital technology or online learning was not applied in SACM activities because of the limitation of teaching experience of the researcher regarding the use of digital technology. Therefore, although the SACM is a new teaching approach which is based on face-to-face discussion, it might not be able to address the requirements according to the Thai higher education policy. This is discussed later under the topic of contribution to knowledge (see section 7.2).

2.5 Summary

The aim of this chapter has been to give an explanation of the general background of Thai higher education in relation to the B.Ed. programme. Initially, the historical and administrative system background of Thai higher education was introduced in order to give an understanding of its cultural context. Next, educational requirements for the B.Ed. programme were described with regard to Thailand's National Strategy for 2018-2037, the TQF and the EQA. These educational policies and regulations have had a considerable impact on the B.Ed. programme, on B.Ed. students and on new schoolteachers as respects the teacher licence. To clarify supportive ideas for being a schoolteacher in Thailand, the differing perspectives of the Thai government's expectations and B.Ed. students' motivation are discussed in connection with the schoolteacher objective. Innovation is seen as a buzzword in Thai higher education but its definition is still vague in its practical application. The understanding here of the term 'innovation' has been considered in association with Thai higher education policy and teaching and learning within the B.Ed. programme.

CHAPTER THREE

LITERATURE REVIEW

3.0 Introduction

The system of Thai higher education was explained in Chapter Two. However, it was insufficient to provide a clear picture of this research background with respect to the learning of Thai literature and Thai B.Ed. students' problem-solving skills. Moreover, because of rapid changes in Thai society within the digital era, the culturally influenced studying styles of Thai B.Ed. students were as diverse as their educational and cultural backgrounds. Hence, an understanding of this circumstance was to be expected in order to present an overview of the research background. Within this chapter, eight sections are considered in association with the research questions. Since the research participants were B.Ed. students from Capital City University (pseudonym) in Thailand, its educational system is described in subsection 3.1 in relation to the educational policy of the Academic Marketplace. The characteristics of the B.Ed. students are also explained regarding their academic and cultural backgrounds. Additionally, the fundamental beliefs and theories of constructivism are explained in subsection 3.2. The term 'collaborative learning', its key aspects and the Structured Academic Controversy Model (SACM), namely the American teaching model are also clarified in subsection 3.3. In addition, problem-solving skills are considered in subsection 3.4. In particular, their definition, importance, problem-solving methods and Thai students' problem-solving skills. Furthermore, the learning of Thai literature is considered through the reading of Thai literature, a paradigm shift for the teaching of Thai literature and learning SACM activities in a Thai literature classroom. The conceptual framework and research gap are also provided in subsections 3.6 and 3.7. Finally, subsection 3.8 presents the summary for this chapter.

3.1 Capital City University in Thailand and its context

Capital City University was established in 1971 following an admissions crisis in the Thai system of universities. There were more than 50,000 students who were unable to apply for a place in the public universities. To address this problem, Capital City University put into effect a policy of *'Equality of Opportunity'* (the Office of the President, Capital City University, 2015a, p.7). Although this university is now classified in the second group of public universities in Thailand (see section 2.1), its educational system is different from that of other Thai universities. Moreover, undergraduate students are represented through diverse age ranges and religious affiliations (e.g. Buddhist and Muslim students) from different regions of Thailand. This section is divided into subsections; Capital City University's educational system is described in subsection 3.1.1, and the characteristics of the B.Ed. students are described in subsection 3.1.2.

3.1.1 Educational system within the idea of an Academic Marketplace

Since 1971 the educational system of Capital City University has been administrated through the Academic Marketplace policy. According to the 1997 Act of Capital City University, the Academic Marketplace can be defined as those individuals who graduate from an upper secondary school and are thus eligible to apply for a place in a bachelor degree programme without sitting an entrance exam. This system is comparable to *'open admission which offers educational opportunity for the masses'* (the Office of the President, Capital City University, 2015b, p.13). This educational system is well known for its low tuition, minimal class attendance requirements and opportunities for re-enrolment and re-examination. The tuition rate is 30 Baht (approximately £1.29) per credit. The total credits for an academic semester are not greater than 24. Hence the tuition cost to a student cannot exceed 720 Baht (approximately £30.96).

This is an educational opportunity for all people who would like to enhance their educational achievements by obtaining a bachelor degree (Public Relations Subdivision, Office of the President, Capital City University, 2018). However, members of the public are sometimes sceptical of the proficiency of its undergraduate students and the quality of the system, the instruction and the degrees awarded.

Under the Academic Marketplace policy, classroom attendance is not compulsory in any course. Undergraduate students may choose an alternative method of learning for their own convenience. If they cannot attend classes, a self-study programme can be offered, and the university will recommend specific textbooks and the use of videos in some subjects. Contact can be made with a lecturer via e-mail or telephone (Admissions and Records Office, Capital City University, 2014). Self-study is very suitable for distance learning and full-time workers.

However, the lack of enforcement of class participation often results in students' absence from classes (Supa-apichatwong, 2013). The Office of the President, Capital City University (2015b) performed a self-assessment for purposes of educational quality assurance in which it acknowledged that the problem of overall student absenteeism was not due solely to the non-attendance of distance learners and full-time workers. There are probably be more pertinent reasons for student absenteeism. When students are absent from classes, there will not be any relationship with a lecturer or classmates. They will not have opportunities for academic practice and then receive feedback from a lecturer. The Educational Quality Assurance Agency, Faculty of Education, Capital City University (2016) suggests that such students are insufficiently able to develop their learning ability, critical thinking and problem-solving skills in order to meet the programme's goals for learning outcomes.

While classroom attendance seems to be an issue with respect to the educational quality of Capital City University, the systems for re-enrolment and re-examination are also likely to be associated with student absenteeism. According to the 1997 Act of Capital City University, the systems were put in place to give students who miss a final test or fail in a subject the opportunity to succeed in any bachelor degree programme. Students have two opportunities for enrolment and examination in each academic semester (the Office of the President, Capital City University, 2015a).

On the one hand, learning opportunities are offered for undergraduate students based on the principle of '*Equality of Opportunity*'. Supa-apichatwong (2013) supports the idea that the systems are also helpful for students who find the first opportunity for enrolment and examination to be inconvenient. On the other hand, these systems invite questions about educational quality. According to the Educational Quality Assurance Agency, Faculty of Education, Capital City University (2016), some B.Ed. students register for and then do not attend classes. Therefore, a lecturer has little opportunity to meet them until the test. The current system is presented in the following diagram 3.1.1.

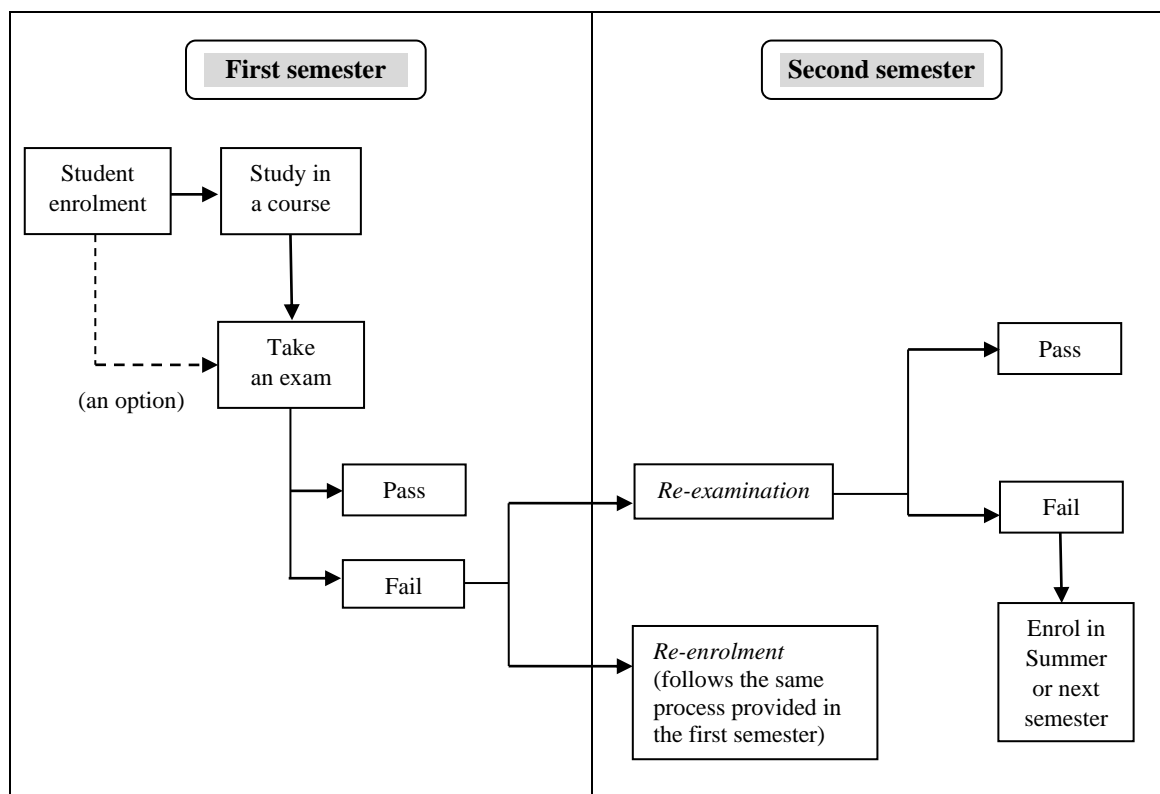


Figure 3.1.1 the re-enrolment and re-examination system of Capital City University in Bangkok, Thailand

To overcome this issue, classroom activities can be improved in order to promote student attendance. Nevertheless, student absenteeism can still be found, especially within the second academic semester. Although this topic is known and discussed among lecturers in terms of EQA, there will still be difficulties in overcoming this limitation because of the alternative learning choices offered by the University according to the 1997 Act of Capital City University.

3.1.2 Characteristics of the B.Ed. students

Under the Academic Marketplace, policy, as one might expect, there is a variety of students having different characteristics such as dialects and religious affiliations. Additionally, most B.Ed. students come from various regions of Thailand. In other words, they are living in Bangkok (Thailand's capital city) which is not their birthplace. To prepare a suitable teaching and learning programme for these particular B.Ed.

students, their diverse backgrounds need to be considered. For this reason, B.Ed. student enrolment suitability is considered in relation to individual academic and cultural backgrounds. According to the Admissions and Records Office, Capital City University (2014), B.Ed. students' characteristics are categorised as presented in the following table.

Table 3.1.2 Characteristics of the B.Ed. students of Capital City University

Background	Aspects
Academic background	<ul style="list-style-type: none"> ● Study programmes in upper secondary education do not support the field of study in a B.Ed. programme. For example, students who have satisfied the requirements of mathematics and sciences at the upper secondary education level are not suitably prepared for participation in a B.Ed. programme (Thai or social studies major). ● Study in a B.Ed. programme as a second degree after first degree graduation or whilst studying for a degree in a public university ● Mature students (over 30 years of age) ● Schoolteachers who do not want to study for a post-graduate certificate in education (PGCE) because the field of study is not indicated on the teaching certificate.
Cultural background	<ul style="list-style-type: none"> ● Religious affiliations e.g. Buddhists and Muslims ● Dialects e.g. Thai, Isan, Khmer and Bahasa Melayu Pattani ● Regional domicile e.g. central, north-eastern, southern ● Attire e.g. Buddhist monks and Muslim female students

As suggested in Table 3.1.2, the variety of the B.Ed. students' characteristics may will be different from those of B.Ed. students who study in other universities in Bangkok, Thailand because of the open admissions system. Within B.Ed. classrooms, students can share knowledge and experience in accordance with their academic and cultural backgrounds. They have opportunity to improve the skills required for group-work by way of group discussion and assignments.

The diverse characteristics of the B.Ed. students can support group-work, but in this respect there are limitations because of insufficient academic knowledge. On account of differences in their academic backgrounds, students are often confused when the contents of a field of study do not correspond to the knowledge gained from their upper secondary education and/or their first bachelor degree (Moolsadang, 2014). For example, if a student has an upper secondary background in mathematics and science, he or she

has less understanding of a course on Thai grammar or the fundamental concepts of Pali and Sanskrit. Although students can participate in classes and study the suggested textbooks, they often fail in these courses (Yamsaeng, 2015). Subsequently, re-enrolment in B.Ed. courses is found in every semester.

Additionally, the differences between the B.Ed. students' cultural backgrounds can lead to group isolation. Group preferences can be seen in terms of language dialect (Isan and Bahasa Melayu Pattani), region of origin, (northeast Thailand, southern) and religion (Buddhist and Muslim). Close relationships can be found within cultural groups but collaboration between different cultural groups is rarely seen. Moreover, if a B.Ed. class consists of a large (over 100) number of students, only a lecture style of delivery is frequently utilised in the class (Moonsadang, 2014). Thus, students have fewer opportunities to share opinions with their classmates who have a different cultural background.

To overcome this limitation due to different academic and cultural backgrounds, an improvement in academic knowledge and an understanding of cultural differences are required from the B.Ed. students. They are advised to participate in learning activities and events offered by the Section of Research and Academic Affairs, Capital City University. Notwithstanding these learning opportunities, the concept of self-study is ingrained in the culture of Capital City University, and students tend not to be interested in attending additional activities and events provided by the faculty and the university (the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016). Hence, the drawback of insufficient knowledge background and group isolation is evident in B.Ed. courses.

3.2 Constructivism

In accordance with the philosophical belief of constructivism, people cannot simply receive an idea from others. In other words, the knowledge '*cannot just be transmitted from teacher to student*' (Muijs and Reynolds, 2018, p.72). Students must discover or construct the knowledge for themselves by means of communicating and receiving the advice or support from their teachers, parents and classmates. Additionally, students can acquire new perspectives by virtue of discussion and debate (Ashman, 2018; Slavin, 2014). The philosophical concept of constructivism is adopted in this research with respect to learning within small groups.

Moreover, this learning concept is suggested for the B.Ed. programme at Capital City University in Bangkok, Thailand (the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016; the Office of the Higher Education Commission, 2019a). Although the university has the minimal requirement of student class attendance as mentioned in subsection 3.1.1, it does not support learning activities in B.Ed. classrooms. The constructivist idea is still an expectation to improve the B.Ed. students' knowledge and skills (the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016). Moreover, in order to understand the philosophical ideas which underpin the application of the SACM in this research, the characteristics of constructivism are considered. This section consists of two subsections. The constructivist beliefs and theories are explained in subsection 3.2.1 and the implications of constructivism in classrooms are discussed in subsection 3.2.2.

3.2.1 Fundamental beliefs and theories

Although constructivism is based on the concept of '*learning through interactions between people*' (Muijs and Reynolds, 2018, p.72), the constructivist concept comprises beliefs and theories which differ depending on the focus on human behaviours and the

term ‘learning’. To provide a broader picture of constructivism in relation to the SACM, three constructivist theories are considered: Piaget’s theory regarding peer interactions, Vygotsky’s social constructivism and the theory of constructive controversy. Details are presented in the following comparison table 3.2.1.

Table 3.2.1 Constructivist beliefs and theories

Theory	Piaget’s theory regarding peer interactions	Vygotsky’s social constructivism	The theory of constructive controversy
Questions			
How is knowledge constructed?	Knowledge is individually constructed and associated with prior understanding and experience by way of interactions.	Knowledge is individually constructed through social interactions.	Knowledge is discovered or constructed by means of social interactions.
What is the term ‘learning’?	Learning is a passive process to discover new knowledge. This process relates to personal readiness or ‘schemes’.	Learning is an active process which always happens through communication and interactions. Students acquire ideas and experience from family and society.	Learning is an acquisition of new ideas. It does not automatically occur but it has to be well-prepared or structured.
What is the theoretical concept?	When new knowledge cannot link with schemes, called ‘disequilibrium’, adaptation between the new knowledge and the schemes is employed using assimilation and accommodation approaches.	Students need to be guided and supported by considering the zone of proximal development. They should be guided by means of the scaffolding procedure.	Constructive controversy is based on the combination of learning within groups and a conflict. Dealing with a conflict can lead to deep understanding. The four studying methods are considered in relation to constructive controversy, debate or competition, concurrence seeking and individualistic process.
How does conflict relate to the idea of ‘learning’?	Disequilibrium is seen as the conflict resolution. A conflict leads to a search for more information to advocate an argument. Effective learning occurs through interactions between people of similar status.	Learning can happen through discussion and debate between people who have different knowledge and experience.	Conflict can improve the learning ability through a search for more information. This concept is called ‘epistemic curiosity’. However, learning through conflict needs preparation and practice.

The three constructivist theories, as summarised in table 3.2.1, are described in the following subsections.

3.2.1.1 Piaget's theory in connection with peer interactions

In accordance with Piaget's theory, knowledge is individually constructed and related to prior understanding and experience. Knowledge is discovered through interactions (Slavin, 2014). This idea is associated with the definition of 'learning' which believes that learning is a passive process to understand and discover new knowledge. Students are able to acquire new knowledge when they are ready, depending on their personal backgrounds and age. Piaget's theory of cognitive development is based on the development of children's acquisition according to different age ranges. Piaget mentions that learning can occur through peer interactions such as discussion and debating activities.

For this theory, 'schemes' were introduced as '*patterns of human behaviour and thinking*' (Slavin, 2014, p.35). When new knowledge does not fit with the schemes, called '*disequilibrium*', the process of adaptation is employed. The process consists of two approaches: '*assimilation*' and '*accommodation*'. The assimilation procedure refers to the adaptation of the new knowledge into the schemes; whereas, accommodation focuses on the adjustment of the existing schemes which are associated with the new knowledge. For example, students are familiar with a lecture as a traditional teaching method. When they are taught by means of group discussion, they must change their learning procedure in order to comply with group discussion as a new teaching method (Webb, 2013).

The term 'learning style' refers to how students prefer to learn. However, the concept of learning style is 'ill-defined' (Kirschner, 2017, p. 170) because it is based on human behaviour in different situations regarding interpersonal relationships and classroom assignments (Hatami, 2013). Its concept is also diverse depending on learning style theories e.g. Coffield et al. (2004), Fleming and Baume (2006) and Honey and Mumford (2006). To avoid any confusion in this section about learning styles in relation

to constructivism, a studying technique is simply defined as a preferred way of acquiring knowledge and skills (Pritchard, 2018). Nevertheless, the term ‘studying technique’ in this section does not refer to the particular Thai student learning style as mentioned in section 1.0.

Piaget’s theory with respect to disequilibrium assumes an effect on peer interactions. Students can present opposing perspectives in discussion and debate activities. In an attempt to make a strong argument, a student searches for more information to support their idea. They also analyse the weaknesses of their classmates’ viewpoints in order to argue. Due to this conflict, learning improvement is apparent. The student can enhance their understanding of a discussion topic and improve skills required for group participation.

However, the idea of learning through conflict is limited when people have a different status. Although students can discuss and debate independently with their classmates, they are not confident enough to present an opposing view to teachers and parents. Hence, learning can be ineffective because of social hierarchy differences (Long et al., 2011). From Piaget’s perspective, the role of the student is focused on rather than the role of the teacher because Piaget believed that when students interact and/or communicate with each other, they realise and revise the new knowledge for themselves. This concept is different to the social constructivism offered by Vygotsky. This is detailed in the next subsection.

3.2.1.2 Vygotsky’s social constructivism

In terms of Vygotsky’s theory, knowledge is individually discovered or constructed through social interactions. Language is an important communicative tool (Bartlett and Burton, 2016; Woolfolk, 2016). Furthermore, the term ‘learning’ refers to the active process which always occurs through communication and interactions with others. This

idea is different to Piaget's perspective in relation to the concentration on the individual readiness for learning. Vygotsky believes that students always learn a new idea. They do not have to wait for readiness for learning (Slavin, 2014).

Additionally, culture and society have an impact on learning development. For instance, students have opportunities to share diverse perspectives with their parents, teachers and classmates. Students receive new ideas during communication and interactions (Macblain, 2014). However, students cannot discover new knowledge without the help and support given by parents, teachers and/or classmates. Students still need suggestions, encouragement and challenging perspectives in order to improve their learning abilities (Long et al., 2011).

To provide the appropriate help and advice, teachers should consider '*the zone of proximal development*' which refers to the balance between the individual needs of the student and the help and support given by a teacher (Bartlett and Burton, 2016). Moreover, each student should be supported by means of the scaffolding approach in which a teacher gradually provides help and suggestions to students. When they are able to construct knowledge sufficiently by themselves then the offered help and support is gradually reduced (Pollard et al., 2019). However, an assignment given to a student should be difficult to complete. According to Vygotsky's theory, students should start to do a task which is complex and challenging for their competency (Slavin, 2014). When students encounter a difficulty or they cannot easily solve a problem, the zone of proximal development is clearly shown.

In group learning, a conflict occurs when students disagree with each other. Dealing with the conflict leads to deep understanding on the discussion topic. This idea is close to Piaget's perspective. However, Vygotsky believes that learning with conflict is not limited to students and people who have similar status. Learning opportunities occur

through discussion and debate between a teacher and student. Presenting opposing views to teachers and experts leads to an insight into the new knowledge (Muijs and Reynolds, 2018; Pollard et al., 2019). Additionally, the concept of learning through conflict is seen in the theory of constructive controversy which is discussed in the following subsection.

3.2.1.3 Theory of constructive controversy

The theory of constructive controversy is based on a constructivist idea which focuses on social interactions. The theory was created by Johnson and Johnson (1993, 2014) and developed by Johnson (2015). The theory shares some similarity with Vygotsky's social constructivism in that the knowledge is individually constructed through social interactions (Johnson and Johnson, 2014). However, 'learning' is defined as the acquisition of new knowledge. Johnson believes that learning cannot occur automatically. It needs to be well-prepared or structured prior to sharing different perspectives and facing or dealing with a conflict. Moreover, threats, lies and silence in communication and interactions between peers cannot lead to a learning improvement.

The key aspect of the theory is based on the combination of collaborative learning and conflict. Johnson believes that a controversy leads to a clear understanding. When students debate with each other they search for more information in order to support their argument. This idea is called '*epistemic curiosity*' (Hesse et al., 2015; Johnson, 2015).

In accordance with the theory behind constructive controversy, the preferred learning methods for information acquisition (see the term 'studying technique' in section 3.2.1.1) are determined in relation to constructive controversy, debate or competition, concurrence seeking and individualistic learning style. Constructive controversy is based on learning through conflict. Students are divided into teams A and B and those

two teams debate with each other. After presenting a first argument each team interchanges its standpoint. Then they start to debate again. This is an opportunity to clarify the debating topic. The students receive diverse perspectives in order to create a group consensus or a solution together. Instead of fostering competition, interdependency is emphasised in this learning style. Students can understand opposing ideas from each other. Constructive controversy is very different to other learning styles.

Regarding debate or competition, students are normally divided into two teams, team A and team B, just as in the concept of constructive controversy. However, each team always adheres to its standpoint. Within small groups all group members do not provide a groups consensus. There is the ‘winner’ team and the ‘loser’ team. For this reason, debate or competition does not lead to the benefit of the idea of interdependency.

With regard to concurrence seeking, its purpose is to find a solution together. Students help each other to complete an assignment without any conflict. All group members brainstorm to solve a problem or create an agreement. Although interdependency is apparent in this learning style, an opposing idea or disagreement is kept in control by compromise to agree with group majority thinking.

The fourth learning technique is the individualistic method. This studying technique is based on individual learning. Therefore it lacks the conflict and the interdependency. Completing an assignment or solving a problem depends on personal decision making.

Reflecting on the four aforementioned studying techniques, constructive controversy appears to be an effective and appropriate learning method within groups because students improve knowledge and skills from the conflict (Hesse et al., 2015; Long et al., 2011). However, the theory of constructive controversy does not follow Piaget’s perspective which is limited to discussion and debate between students or people who

have equivalent status. Johnson believes that students can improve their learning ability through conflict by means of discussion and debate with parents, teachers, classmates and experts (Johnson, 2015). This idea is close to Vygotsky's theory.

3.2.2 Implications for learning in classrooms

Constructivism is generally applied in classrooms because its theoretical concept focuses on the understanding of students' prior knowledge and experience. This concept leads to the application of a variety of teaching methods in order to accommodate the different learning styles of students (Woolfolk, 2016). Additionally, when students learn within groups, they try to solve a problem together (Macblain, 2014). The constructivist idea underpins the concept of collaborative learning with respect to problem resolution. However, the practical application of collaborative learning is limited in relation to the lack of understanding of the constructivist theory (Hung, 2015; Merriënboer, 2013). The drawbacks are evident with respect to the poor preparation for group activities and group tasks. Moreover, teachers do not follow the whole process of collaborative learning (Long et al., 2011).

Moreover, students do not want to learn within groups. Some students do not feel responsible for a group task. They are also unclear about the characteristics of collaborative learning. Hence, they cannot complete a group task or they ignore helping other group members to solve a problem within the group (Woolfolk, 2016). Therefore the application of constructivism in classrooms requires it to be understood clearly and practised. Teachers need to be trained in order to prepare appropriate learning activities for students (Hesse et al., 2015)

3.3 Collaborative learning

The original idea of collaboration comes from '*to labour together*' (Watkins et al., 2007, p.88). However, the meaning of collaboration is broader than working together. In education this concept is known in terms of '*collaborative learning*'. It is generally applied in many countries at different educational levels. In Thailand, collaborative learning is applied at basic education through to higher education levels (the Office of the Higher Education Commission, 2019a). To overview collaborative learning, this section comprises three subsections. The comparison of the definition between collaborative learning and co-operative learning is discussed in subsection 3.3.1. The key aspects of collaborative learning are presented in subsection 3.3.2. Finally, subsection 3.3.3 elaborates the collaborative teaching model, the SACM, regarding its concepts and procedures.

3.3.1 Is collaborative learning similar to co-operative learning?

Collaborative learning is often used interchangeably with co-operative learning because of the general idea of learning within groups. However, collaborative learning is different from co-operative learning with respect to the particular characteristics. Woolfolk (2016) claims that co-operative learning is a sub-set of collaborative learning. This aspect of co-operative learning refers to working together without the requirement of a group goal. Students are only working in the same area and sharing some sources. For example, students share an eraser during an individual assignment in the classroom. This behaviour is close to the idea of group-work (Long et al., 2011).

However, Slavin (2014) disagrees with this concept. With regard to the term '*co-operative learning*', Slavin (2014) claims that it is similar to collaborative learning in that students as group members have '*a shared goal*'. In other words, all group members work together in order to solve a problem or create a group consensus

(Ashman, 2018). Nevertheless, this concept is not adopted in this research. The shared goal is not enough to identify the distinctive characteristics of collaborative learning.

For this research, collaborative learning is defined differently to co-operative learning. Collaborative learning has two particular aspects with regard to 1) sharing the problem, process and goal and, 2) the relationship between individual and group tasks. By considering the first aspect, collaborative learning requires the sharing of the problem, process and goal among all group members. Students encounter and deal with the same problem. They need to plan and elaborate the solution together (Hesse et al., 2015).

For the second aspect, although collaborative learning concentrates on the group task, individual tasks are essentially required to support the group task. If individual tasks are not completed, they will have an effect on the group task, namely the probable failure of the group task. As a result, individual responsibility is indispensable for learning within the group based on collaborative learning, whereas these characteristics are not required for co-operative learning (Care and Griffin, 2017; Long et al., 2011).

3.3.2 Key aspects of collaborative learning

To understand the characteristics of collaborative learning, this section consists of four subsections. The understanding of students' prior knowledge and experience is explained in subsection 3.3.2.1. The learning within small groups is also clarified in subsection 3.3.2.2. Individual and group tasks are considered in subsection 3.3.2.3. Finally, subsection 3.3.2.4 discusses teacher and student interactions.

3.3.2.1 Understanding students' prior knowledge and experience

In accordance with constructivism, the understanding of students' prior knowledge and experience is important for teachers to consider prior to providing collaborative learning activities for students in the classroom because each student has a different academic

and cultural background (Woolfolk, 2016). However, this topic is often overlooked because it is time-consuming in the preparation for teaching. As a result, students cannot complete a group task. They are limited in improving their learning ability (Watkins et al., 2007). Due to the lack of understanding of student backgrounds, the drawbacks for student interactions are evident in classrooms with regard to poor communication, negotiation and presentation of personal argument within the group (Muijs and Reynolds, 2018; Webb, 2013). To alleviate these limitations, teachers need to consider the students' backgrounds in terms of their academic achievement.

Generally, teachers try to mix students within groups in relation to different scores of academic achievement describing high, medium and low ability levels. The purpose of mixing student ability is to provide opportunities for students to share different knowledge and skills (Sharan, 2014). Nevertheless, the focus of academic achievement based on collaborative learning is not sufficient to improve students' social interactions with respect to self-confidence and communication skills (Hesse et al., 2015). Beyond considering academic achievement, personal cultural backgrounds should be considered in relation to ethnicity, religion and cultural preferences. To understand these characteristics, teachers need to be familiar with their students prior to starting collaborative learning activities (Pollard et al., 2019).

3.3.2.2 Learning within small groups

Slavin (2014) states that a small group should consist of three to four group members. When students learn within small groups they have more opportunities for sharing personal perspectives. Moreover, they help each other to complete an assignment. This concept is comparable to '*two heads are better than one*' (Long et al., 2011, p. 196). However, negative behaviour of group members can include that of talkative and dominant students. Additionally, some students are shy and submissive. They prefer to follow the majority idea within the group. Therefore, presenting an opposing view can

be limited throughout the discussion. Hence, group learning can lead to incorrect decisions and ineffective methods to solve a problem. This idea is comparable to '*two heads are worse than one*' (Webb, 2013; Woolfolk, 2013, p. 374).

To solve this drawback, every group member should have the equivalent opportunity to present opinions within small groups. Moreover, in order to improve students' self-confidence, they should be trained regarding the freedom of presenting different perspectives, respect for others and the role of being a good listener. These characteristics are essential for learning within small groups (Johnson and Johnson, 2014).

3.3.2.3 Individual and group tasks

Based on collaborative learning, individual assignments should relate to a group task in terms of the shared problem, process and goal (see subsection 3.3.1). However, the lack of responsibility for the individual task can be seen in student behaviour (Sharan, 2014). This problem is demonstrated when some group members do not contribute to the group task but do receive the score or benefit equal to other group members. This behaviour is called the '*free-rider effect*' (Ashman, 2018). In an attempt to prevent this drawback, the individual and group tasks need to be planned or structured clearly. All group members should also be informed of their specific responsibilities and the importance of the individual task (Muijs and Reynolds, 2018).

Even when individual and group tasks are well-prepared a problem can occur in relation to the lack of assessment of the individual task. Focussing on learning within small groups tends to result in an evaluation of the group task. The assessment of individual tasks can be time-consuming. It is also complicated to combine the scores from individual and group tasks (Care et al., 2015). However, the assessment of the individual task is still required for collaborative learning because the teacher can give

particular feedback to each student with regard to their strengths and weaknesses (Sharan, 2014).

3.3.2.4 Teacher and student interactions

In accordance with Vygotsky's perspective, the interactions between the teacher and student are considered as the key aspect to support the learning within small groups. Teachers play an essential role to guide, help and facilitate individual students in order to discover knowledge by themselves. Hence, the teacher is seen as a coach or facilitator who concentrates on *'the guide on the side instead of the sage on the stage'* (Slavin, 2014, p. 235). However, the practical application of the teacher's role is limited because of low communication skills, the lack of critical feedback and the lack of challenging questions to students (Muijs and Reynolds, 2018). To be aware of these limitations teachers should be trained to understand their teaching role with respect to collaborative learning. Additionally, the interpersonal relationship between the teacher and student should be considered in order to reduce the gap apparent from social hierarchy differences. As a result, students will be more confident to share different opinions with the teacher (Long et al., 2011).

3.3.3 The Structured Academic Controversy Model (SACM)

The Structured Academic Controversy Model (SACM) was created by Estes and Mintz (2016). This teaching model was developed by following the pedagogical concept of *'academic controversy'* established by Johnson and Johnson (1993). The academic controversy was generally applied in classrooms regarding teaching method, technique and strategy. For this research, the SACM was considered in terms of a teaching model. Joyce et al., (2017) have given the definition of a teaching model as a series or pattern of teaching procedures consisting of teaching methods and learning activities that follow a pedagogical concept or theory (Estes and Mintz, 2016).

Within Thai education, a teaching model is considered as educational innovation. The application of teaching models has been generally employed in classrooms over two decades. However, the term *teaching model* was interpreted within the Thai educational context as an approach which was expected to improve Thai students' academic achievements and learning abilities (Khammanee, 2017).

This interpretation has not been adopted in this research because it was seen as inappropriate to make assumptions related to Thai educational and cultural contexts. Generally, teaching models adopted in Thai education were based on western pedagogical ideas (Khammanee, 2011; Khowsurat, 2011). They may or may not enhance Thai students' learning ability. As a result, the definition of teaching model within this research relies on the general idea referring to a series of teaching procedures without an assumed predetermined result of student learning. To clarify the SACM, the following two subsections are presented. Subsection 3.3.3.1 demonstrates the SACM concept and procedure. Subsection 3.3.3.2 provides empirical studies regarding the application of SACM.

3.3.3.1 Concept and procedure

The SACM was based on the idea of the '*power of conflict in classrooms*' (Estes and Mintz, 2016, p. 192). The study's teaching model was designed in the belief that a controversy can lead to a search for more information and supportive knowledge to present an opposing perspective within a discussion or debate. This concept is known as '*epistemic curiosity*' (Johnson, 2015, p. 33). Hence, students were able to understand different knowledge and perspectives from discussion and debate activities. Students were expected to improve academic achievement, critical thinking, and problem-solving skills (Johnson and Johnson, 2014). Additionally, students had opportunities to share their knowledge and opinions within small groups through collaborative learning.

For its effectiveness, this learning concept depends on the diversity of the small group members regarding gender, ethnicity, dialect, ability and skills (Woolfolk, 2016).

Although the SACM focused on discussion and debate activities, it was different from a general concept of debate. Johnson (2015) claimed that a debate allowed the rejection of opposing views, and students adhered to their own opinions. The SACM activities gave students an opportunity to interchange their position in debate. In other words, both teams within the small group, ideally four students per group, reversed their opposing viewpoints and created a group consensus. Rather than compete merely to show who was right, students were able to understand different ideas and help each other to complete a group assignment. Teamwork and interdependence played an important role within SACM activities (Estes and Mintz, 2016).

Estes and Mintz (2016) offered the SACM as a set procedure, which is comprised of seven learning steps. The details are shown as follows.

Step One: Students prepare their position

A discussion topic is provided to each student group. Within each group, students are divided into two teams. Team A focuses on the agreement with the discussion topic. Team B concentrates on the disagreeing viewpoint. Each team prepares supportive evidence for discussion and debate.

Step Two: Students present and advocate their positions

Each team arranges their claim and presentation. Supportive and opposing information are considered regarding strengths and weaknesses. For this step, there is no debating during the preparation.

Step Three: Open discussion and rebuttals

Within each student group, Team A presents their idea on the discussion topic. Then, Team B tries to refute the ideas provided by Team A. In this step, students have opportunities to show their opinions independently and reasonably. In addition, students should be polite to each other through discussion and debate activities.

Step Four: Reverse position

Each team interchanges their position. In other words, Team B demonstrates their agreement on the discussion topic. Meanwhile, Team A attempts to argue the ideas given by Team B. Their arguments will be different to those in Step Three.

Step Five: Synthesise and integrate the best evidence into a joint position

All members within each group summarise their opinions regarding strengths and weaknesses. Students create a synthesis idea or a group consensus. For this step, student opinions and group consensus need to link with the discussion topic.

Step Six: Present the group synthesis

Each group shares the group consensus and supportive reasons to other student groups. Students discuss within the whole class in order to confirm or revise the group consensus.

Step Seven: Group processing of the controversy and participation of members.

Students evaluate the process of discussion and debate. Positive and negative aspects of the SACM activities are considered with respect to the student learning experience.

The SACM as a teaching model was accepted in this research as being appropriate considering the characteristics of the research participants, the learning of Thai literature and the learning outcome requirement for the B.Ed. programme. Research participants

represented different genders, religious affiliations and regions of Thailand. The SACM was applied to research participants through collaborative learning, keeping in mind mindful of the different characteristics of students within the group in order to share diverse perspectives and come to a group decision.

For the learning of Thai literature, discussion and debate activities were suggested in order to clarify literature themes and ideas. The SACM was appropriate for research participants who were Thai majors enrolled in a Thai literature course. The students had opportunities to share different viewpoints by following SACM activities. These activities were in accordance with the TQF where collaborative learning and conflict resolution activities were advised to be applicable in B.Ed. courses (the Office of the Higher Education Commission, 2019a). The SACM was hence seen as applicable and therefore adopted in this research.

3.3.3.2 Empirical studies regarding the application of the SACM

There are few published papers on research into the SACM. Hence, the understanding of the practical application of the SACM is limited in relation to its strengths and weaknesses. However, empirical research regarding the similar pedagogical concept of structured academic controversy is available. Three empirical studies are considered in this research because they are based on the theory of constructive controversy. The three studies to be considered include: Morais et al.'s (2017) study of the development of argumentative skills of Portuguese secondary school students in the teaching of philosophy, Tavakoli et al.'s (2017) study of the effect of structured academic controversy on Iranian undergraduate students' English proficiency, and Lo and Adams's (2018) investigation of the American upper secondary school students' civic literacy by using the structured academic controversy.

Although the three studies have different research designs and samples, their findings demonstrate that after learning by using the structured academic controversy, student improvement in relation to argumentative skills, English proficiency and deep understanding of civic literacy is evident. The abilities of students were developed because of the discussion and debate activities and they had opportunities to share diverse opinions.

However, the application of the structured academic controversy was limited in connection with the completion of group tasks and the confusion about preparation for presenting opposing views. Moreover, students were limited in providing an explanation regarding difficult academic content.

In accordance with teacher and student interactions, Lo and Adams (2018) argued that the teacher was a facilitator. He or she tried to ask questions of the students in small groups in order to support and challenge the understanding of students. In contrast, Morais et al. (2017) and Tavakoli et al. (2017) gave opportunities to students to discuss and present arguments by themselves. The teachers did not play a vital role in the discussion and debating activities. However, the three studies pointed out that the understanding of student backgrounds regarding prior knowledge and experience was relevant in achieving learning within small groups.

3.4 Problem-solving skills

In an attempt to answer research questions with respect to Thai B.Ed. students' problem-solving skills, the general concept of problem-solving skills is considered in this research. For this section, the importance of problem-solving skills is explained in subsection 3.4.1. The term 'problem-solving skills' is clarified in subsection 3.4.2 with respect to the twenty-first century skills, the domains of learning and Buddhist principles. Additionally, problem-solving methods are described in subsection 3.4.3 in

relation to algorithms and heuristics. Finally, subsection 3.4.4 provides Thai students' problem-solving skills.

3.4.1 Why do we need problem-solving skills?

'All life is problem-solving': this idea shows that problem-solving skills are essentially required by everyone (Merriënboer, 2013, p. 153). Supportive reasons are considered in relation to the characteristics of the problem. In everyday life situations, problems are often new, complex and diverse. Problems also require being solved by means of creative thought. Problem-solving skills are categorised as higher order thinking (Hung, 2015; Taconis, 2013). However, the improvement of problem-solving skills is difficult and time-consuming. Many people give up finding a solution because they have insufficient particular knowledge and experience in practical application (Csapó and Funke, 2017). Nevertheless, problem-solving skills are relevant in a rapidly changing society. Hence, such skills are required for success in the workplace and in society. Problem-solving is known as *'the twenty-first century skills'* (Cho et al., 2015).

In education, problem-solving skills are considered as a learning outcome assessed from basic education through to higher education. For Thai higher education, undergraduate students are expected to develop their problem-solving skills in order to apply them in everyday life situations and as preparation for their future career (the Office of the Higher Education Commission, 2019a). As a result, problem-solving skills are applicable to teaching and learning in bachelor degree programmes, including the B.Ed. programme. This topic is discussed later in subsection 3.4.4.2.

3.4.2 The definition of problem-solving skills

Problem-solving skills are the ability to solve a difficulty or conflict using analytic and creative thinking to make decisions (Slavin, 2014; Woolfolk, 2016). However,

a specific definition is required in order to clarify the characteristics of problem-solving skills for this research. Problem-solving skills are discussed in relation to twenty-first century skills, the domains of learning and Buddhist principles. In accordance with twenty-first century skills, the term 'problem-solving skills' is explained in connection with the aspect of problems, soft skills and collaborative problem-solving skills.

The aspect of problems is generally categorised in relation to both the well-structured problem and the ill-structured problem. A problem which is well-structured refers to the difficulty which is solved by means of arithmetic approaches and having a clear goal. Whereas, a problem which is ill-structured can be seen as an everyday life issue. It is not a routine problem and often needs to be solved by virtue of creative thinking to apply in different situations. Skills required for dealing with an ill-structured problem are sometimes called '*complex problem-solving skills*' (Ramalingam et al., 2017, p. 32)

For this research, Thai B.Ed. students' problem-solving skills were related to the ill-structured problems because students are required to understand Thai literature themes and ideas which are based on academic content. Students were expected to apply literature content to solve everyday life problems. Additionally, solutions were diverse depending on personal opinions and supportive reasons. Hence in this research, students' skills are based on the required solution to ill-structured problems (Hesse et al., 2015).

Problem-solving skills are categorised as soft skills. The skills refer to the combination of cognitive and social skills. They are also the abilities of communication, negotiation and conflict resolution. Soft skills differ from hard skills which are defined as the abilities required for practice and training in academic subjects and a workplace (Ibrahim et al., 2017; Rongraung et al., 2014). However, the B.Ed. students' problem-solving skills are not clearly seen as soft skills. Although the skills are applied to solve

everyday life problems rather than focusing on academic problems, the B.Ed. students are required to analyse Thai literature through learning activities in the classroom. The students also have opportunities to practice for fourteen learning sessions. Therefore, the problem-solving skills in this research are a combination of soft and hard skills.

Additionally, in terms of twenty-first century skills, problem-solving skills are related to collaborative learning. Complex problems in everyday life need to be solved by means of sharing different perspectives between people. In other words, an effective solution should be created by means of learning within groups. Consequently, the skills are known as '*collaborative problem-solving skills*' (Care and Griffin, 2017; Mughal and Shaikh, 2018). For this research, although B.Ed. students were taught by using the collaborative teaching model, namely the SACM, the quantitative research data resulting from the problem-solving skills test and the attitude questionnaire were analysed through individual tasks according to the research design (see section 4.2). Hence, the term '*collaborative problem-solving skills*' is not appropriate in this research. Rather, the term '*problem-solving skills*' is simply adopted here.

Considering the characteristics of problem-solving skills, it is questionable whether to define them as knowledge or practice. In accordance with the domains of learning based on the theory of Bloom's taxonomy, if problem-solving skills are seen as the knowledge, they will be based on the cognitive domain because they are required to apply analytical and creative ideas. If problem-solving skills are based on practice and communication, the skills will be based on the psychomotor domain (Slavin, 2014).

For this research, B.Ed. students' problem-solving skills are required for both knowledge and practice. Students need to understand fundamental knowledge by means of reading and analysing Thai literature themes and ideas. Moreover, they apply the themes and ideas to solve everyday life problems by way of practice in different

learning activities and assignments. As a result, the B.Ed. students' problem-solving skills are based on '*a specific domain*' which is a combination of competencies in order to solve a problem (Guskey, 2013).

The term 'problem-solving skills' is also used in the context of religious morals e.g. the application of Buddhist precepts to solve problems in everyday life (the Office of the Education Council, Ministry of Education, 2019). Problem-solving skills have been likened to the Four Noble Truths according to the Buddhist principles of suffering, the origin of suffering, the cessation of suffering and the path leading to the cessation of suffering (Uthayaratana et al., 2019). But this religious idea has not been adopted in this research. In deference to the cultural and religious background of research participants, the application of Buddhist ideals to the concept of problem-solving skills within the research was not seen as appropriate for Muslim students, most of whom were unfamiliar with Buddhism.

Problem-solving skills within this research are defined as skills required for solving everyday life situations by applying Thai literature themes and/or ideas. These skills are comprised of four fundamental components: identifying a problem, analysing a problem, creating solutions, and selecting and evaluating an appropriate solution (Robertson, 2017).

3.4.3 Problem-solving methods: algorithms and heuristics

Problem-solving procedures are generally categorised with respect to algorithms and heuristics. An algorithm approach refers to '*a step-by-step*' method to reach a goal (Woolfolk, 2013, p.335). This approach is usually applied to solve a well-structured problem. The goal is considered as an absolute answer. Whereas, a heuristic method is defined as a general or unsystematic strategy to solve an ill-structured problem. Solutions are diverse depending on supportive reasons and the appropriateness within

an individual context. Additionally, heuristic approaches are generally applied to solve everyday life problems. These methods are also related to the concept of regarding problem-solving skills as twenty-first century skills. Algorithms are traditionally applied to solve academic problems (Merriënboer, 2013).

Although heuristics are applied in teaching and learning in order to develop problem-solving skills, these approaches are limited because they are time-consuming in achieving a goal (Slavin, 2014). Moreover, the practical application of heuristics is limited to specific subjects. In other words, it is not easy to apply in the classroom (Muijs and Reynolds, 2018).

For this research, the SACM might be regarded as a problem-solving approach because of its characteristics of learning within small groups. Students try to create a group consensus of a group task which is comparable to finding a solution. However, this idea is not accepted in this research.

The SACM consists of seven steps of learning. The SACM teaching model is close to an algorithm approach but students need to apply Thai literature themes and ideas in everyday life situations. This process is also similar to a heuristic approach. Nevertheless, the SACM is not yet confirmed as a problem-solving method. Due to the lack of supportive evidence in relation to theoretical concepts and research, at the moment, the SACM is simply considered as a teaching method which offers opportunities for sharing ideas within small groups (Estes and Mintz, 2016; Sharan, 2014).

3.4.4 Thai students' problem-solving skills

Problem-solving skills have been a focus of higher education in Thailand since the 1999 Educational Act (Hongsiriwat, 2018; the Organisation for Economic Co-operation and

Development, 2016). The next two subsections will clarify the research in this area in order to discuss problem resolution in the context of Thai culture and as an educational standard.

3.4.4.1 Problem resolution with respect to Thai culture

Thailand has been known as the land of smiles. According to the record of Monsieur de la Lubère in Thailand (formerly Siam) in 1687, Thai culture can be considered in terms of typical behaviours of Thai people such as joyfulness, avoidance of seriousness and speaking poetically (Fry, 2018; Theerasasawat, 2011). These behaviours are seen in Thai society to this day. With these characteristics of the Thai style in mind, the idea of problem resolution in Thai culture can be very different from that of other countries. To obtain a general picture of Thai culture in relation to problem-solving skills, three Thai cultural aspects are highlighted here, namely: respect for adults, the sense of obligation and letting things be or it does not matter.

Although the Thai government regime changed from an absolute monarchy to a constitutional monarchy, the strong sense of social hierarchy is still embedded in Thai culture (Fry, 2018). Children are taught to be obedient to adults and elderly people. Thai children should respect adults, especially parents, older family members and teachers because they have more knowledge and experience than children (Gunawan, 2016).

Communication between Thai people depends on five distinct registers of the Thai language (Changkhwanyaun, 2017). In other words, children need to be aware of their language usage and its appropriateness in relation to an opportunity and place (it is called '*gala-tesa*'). Hence, Thai children are traditionally expected to be well-behaved and deferential to adults. This can also make children seem submissive. They are often not willing to ask question of their parents and teachers. While government policy

encourages Thai children to be creative and self-confident, the ideas of respect for adults and obedience are still expected in Thai society (Drennan and Bockern, 2012).

To be polite, Thai people are taught to feel obligated to others. This cultural value is called '*kreng-jai*'. In Thai culture, everyone should be self-reliant by following Buddhist principles. Consequently, '*kreng-jai*' is often used in reference to a sense of obligation or a reason for not needing any help from others (Gunawan, 2016). The sense of obligation is further interpreted as the desire to avoid interruption and discomfort during discussion. Thai people prefer to be quiet and smiling. Although these behaviours are polite in Thai culture, they do not support the idea of problem resolution. Finding a solution without any suggestions can lead to ineffectiveness (Johnson, 2015). Moreover, due to '*kreng-jai*', Thai people are not confident to share their personal opinions or to reveal an actual problem (Crocco, 2018). Hence, this Thai idea can inhibit the development of problem-solving skills.

Thai people often brush off problems by saying '*let things be*' or '*it doesn't matter*' (*mai pen rai*). This phrase refers to the idea of forgiveness and comes from the Buddhist principle of non-self or non-ego. In other words, nothing is certain. As a consequence, feelings of anger and malevolence should be removed (Shulman, 2014). This concept of forgiveness can lead to the compromise situations in Thai society (Fry, 2018). However, '*mai pen rai*' is often misinterpreted and misused by Thai people to mean a feeling of inattention and procrastination. In the view of some foreigners, Thai people are occasionally perceived as irresponsible. These negative habits often cause problems to be overlooked or hidden rather than trying to find a solution (Drennan and Bockern, 2012). It becomes apparent, therefore, that saying let it be or it doesn't matter within the Thai cultural context runs counter to the concept of problem resolution.

In brief, Thai culture can be seen in the characteristics of Thai people regarding respect for adults, a sense of obligation and dismissing problems (or obligations) as unimportant. Although these Thai aspects refer to a culture of politeness and compromise in relation to Buddhist principles, they are often misinterpreted and misused depending on personal perception and prior experience. These cultural characteristics can therefore limit effective problem resolution in Thai society.

3.4.4.2 Problem-solving skills as an educational standard

To enhance Thai educational quality, problem-solving skills are one of the educational standards for Thai students from elementary to post-graduate levels (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2009; the Office of the Education Council, Ministry of Education 2019). Over two decades, the concentration on problem resolution has changed following educational policies and regulations provided by successive Thai governments. To present a general picture of problem-solving skills in relation to the research area, four educational legislation documents are considered with reference to the 1999 National Education Act, Thailand's National Strategy for 2018-2037 and the TQF (both five and four-year B.Ed. programmes). Details are shown in the following table.

Table 3.4.4.2 The educational standards of problem-solving skills

The 1999 National Educational Act	Thailand's National Strategy (2018-2037)	The TQF provided to	
		A five-year B.Ed. programme in 2011 <i>(The B.Ed. graduates are expected to be able to)</i>	A four-year B.Ed. programme in 2019 <i>(The B.Ed. graduates are expected to be able to)</i>
<i>(Students are expected to be able to)</i>	<i>(Teachers are expected to be able to)</i>		
<ul style="list-style-type: none"> • have practical skills, thought processes, management, the application of knowledge to prevent and solve a problem 	<ul style="list-style-type: none"> • have 21st century skills; • and apply knowledge and thinking skills in interdisciplinary fields such as science and questioning, technology, engineering and problem resolution. 	<ul style="list-style-type: none"> • create problem resolution in practical application; • apply knowledge in interdisciplinary fields to solve a problem; • apply problem-solving skills regarding morality and ethics; • and solve a complicated issue through conflict discussion within student groups. <p>Thai major</p> <ul style="list-style-type: none"> • apply thinking skills such as analysis, synthesis and evaluation to overcome the learning issues of school students and to develop their academic achievement; • and solve common errors in Thai language usage. 	<ul style="list-style-type: none"> • have good characteristics of fundamental morality, diagnosis, management and problem-solving skills regarding ethics in Thai society; • apply educational psychology to solve student difficulties in the classroom; • and integrate knowledge and morals to problem resolution. <p>Thai major</p> <ul style="list-style-type: none"> • do research in order to overcome the learning issues of school students and to develop their academic achievement; • and solve common errors in Thai language usage.

As shown in Table 3.4.4.2, Thai students and teachers are expected to be able to apply knowledge and thinking skills to solve problems related to science and technology. For the five- and four-year B.Ed. programmes, problem-solving skills are not only seen as an academic requirement, they are also associated with morality and ethics, as defined by a didactic teaching method. However, the above expectations as educational standards are still unclear because the term ‘a problem’ has not been explicitly defined. This is a drawback, because it can be differently interpreted with as either an academic or an everyday problem. It follows that, these educational standards can lead one to

question whether problems are evaluated correctly, authentically and fairly (Prangpatanpon, 2015).

The educational standards within the two B.Ed. programmes (Thai major) are focused on the learning development of school students and their Thai language usage. These problem-solving standards are intended as preparation of B.Ed. students for field experience in teaching the Thai language (Chimkaw, 2017). Nevertheless, they are insufficient to cover the main fields of the Thai major within the B.Ed. programme of Thai grammar, folklore and literature (the Office of the Higher Education Commission, 2019a). Although problem-solving skills are required in accordance with the Thai educational legislation, their application to Thai literature themes and/or ideas has not been indicated (Supanvanit, 2014). The relationship of problem-solving skills with the learning to Thai literature is unclear in B.Ed. classrooms.

3.5 The learning of Thai literature

According to the Royal Society of Thailand (2011), Thai literature is defined as worthy written works which comprise the high value of aesthetic language. Since this is a vague term, it can be difficult to identify Thai literature apart from the consideration of time period of the written works. Notwithstanding this unclear concept, Thai literature is generally accepted as worthy written works which were created starting with Sukhothai era (1238-1438) and ongoing through to the end of the reign of King Rama VII (1925-1935) (Ketmankij, 2015; Kongkanun, 2013). Works written since 1936 are known as contemporary literature (Sujjapun, 2017).

In the past, Thai literature was employed for purposes of entertainment and religious ceremonies rather than having an academic objective. However, this began to change with the establishment of the 1921 National Elementary Act. Thai literature became

only part of the compulsory subject of Thai language learning in the Thai basic curriculum (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2009). Schools in Thailand play an important role in the study of Thai literature. To provide an overview of learning about Thai literature as the research area, this section consists of the following three subsections with regard to fundamental concepts for the reading of Thai literature, Thai literature offered to minority student groups, and a paradigm shift for the teaching of Thai literature.

3.5.1 Fundamental concepts for the reading of Thai literature

Although Thai people are familiar with Thai literature from their elementary education, personal perceptions and interpretations can be different depending on their academic background and prior experience. To present an overview of the learning of Thai literature, the fundamental concepts are here explained in relation to the aim of reading and the basic knowledge to support the understanding of Thai literature. According to the Thai Basic Education Core Curriculum, the purpose of reading Thai literature is related to following the hierarchical cognitive thinking according to Bloom's taxonomy, namely, knowledge, comprehension, application, analysis, synthesis and evaluation (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2009; Thongaht, 2013). Nevertheless, this concept could not provide an adequate reason for the main purpose of the reading and appreciation of Thai literature.

Supanvanit (2014) claims that students frequently ask why they must read Thai literature. The answer is usually an academic explanation based on literature plot and theme, the aesthetic language and Thai cultural preservation (Ezeokoli, 2016; Thongaht, 2013). However, they could be told that they are reading the literature to experience a reaction to the human interactions contained within it. Devayasuvan (2011) points out that analysing personal interactions contained within Thai literature is comparable to looking in a mirror (Buganza, 2012). Literature's themes, ideas and characters could be

discussed in order to understand the reactions of individual students to the literature and its effect on their interpersonal relationships (Devayasuvan, 2011; Eman, 2017).

However, Thai literature teachers often relate the subject matter to religious views, especially those seen in Buddhist proverbs and principles (Devayasuvan, 2011). Traditional teaching methods which lay stress on personal ethics within a Thai literature course invariably lead to Thai students' boredom and indifference (Changkhwanyaun, 2017).

On the whole Thai students are not familiar with the fundamental knowledge of Thai literature. Hence their reading experience is often the result of translating and paraphrasing poems rather than based on themes and ideas (Devayasuvan, 2011). Within the B.Ed. programme (Thai major), the scope of basic knowledge is related to the fundamental structure of oriental languages, especially Pali, Sanskrit and Khmer, Thai prosody, the aesthetic language, Buddhist ideas, Jataka (the tales of the Lord Buddha's former births), Hindu mythology and Thai literary history (Ketmankij, 2015). If B.Ed. students lack a full understanding of those basic concepts, they will experience difficulties in reading and appreciating Thai literature.

At present, supportive information for Thai literature can be found easily via the Internet such as electronic books, websites, YouTube and Facebook (Sujjapun, 2017). These online materials can be understood within a short period, approximately 10 to 20 minutes. However, in the absence of peer reviews, misspellings, misinterpretations and incorrect details and references can be inadvertently picked up (Kongkanun, 2013). As a result, B.Ed. students need to be aware of the accuracy of the contents as regards fundamental knowledge and its suitability for supporting the reading of Thai literature.

3.5.2 Thai literature offered to minority student groups

According to the Thai Basic Education Core Curriculum, Thai literature titles were offered to Thai students by following 2002 notification by the Ministry of Education (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2006). Although compulsory and optional literature titles were provided by the Ministry of Education, they seemed mostly appropriate for Thai Buddhist students who are the majority student group in Bangkok and in the central region in Thailand. In other words, the content of Thai literature according to the Basic Education Core Curriculum was mostly based on Buddhist principles (Devayasuvan, 2011). Regional Thai cultures and non-Buddhist religious affiliations were not well represented by those literature titles. Hence, all students in Thailand read the same literature with minority student groups being perhaps under – represented, to their disadvantage.

For minority student groups who have different religious affiliations, their reading of Thai literature tended to be restricted, perhaps because of the rules of their religion. For example, Muslim students in Thailand are not allowed to touch a dog or to eat any food containing pork (Samah et al., 2018). Hence, a few Thai literature titles within Thai secondary textbooks which mention a dog (the short story of dog, named ‘Mom’) and traditional Thai food cooked featuring pork (the poem for the royal barge procession) were not selected within the curriculum of local Muslim schools in the southern region of Thailand (Apattananon, 2018). Additionally, Muslim students cannot understand and appreciate Thai literature because they are not familiar with Buddhism and its principles. Furthermore, Buddhist monk students tried to avoid reading poems which spoke of flirtation, love, erotic scenes and gender diversity (Supanvanit, 2014). Although these are an acceptable general part of Thai literature, they were prohibited for those Buddhist monk students because of the rules of Buddhism in Thailand.

Minority student groups in different regions of Thailand have limited understanding of cultures and places indicated in Thai literature. For instance, students in the northeast and south of Thailand cannot understand the Buddhist tradition of respect for the ancient inscription of the Lord Buddha's feet in Saraburi province (in the central region of Thailand) which is mentioned in Thai literature - according to the Basic Education Core Curriculum (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2006). Although they can research this Thai tradition via the Internet such as Google and Wikipedia websites, they cannot appreciate its essence, as unfamiliar as it is to their own culture and domicile (Raksamanee, 2013; Sujjapun, 2017).

For this research, six classic Thai literature titles were selected by following the course specification for Thai literature undertaken in Capital City University. Although those Thai literature titles seemed unsuitable for the characteristics of research participants who could be classified within minority student groups of religious affiliations (Buddhist and Muslim students) from different regions (e.g. north-eastern, southern and central Thailand), the six literature titles were nevertheless well-known in Thai society. They were also comprised of fundamental knowledge of Thai literature in connection with Buddhist principles, aesthetic language and traditional Thai culture (Ketmankij, 2015; Sujchaya, 2015).

Moreover, the three of these six literature titles were compulsory for the reading of Thai literature according to the Basic Education Core Curriculum (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2006). This implied that the six literature titles were appropriate for B.Ed. students as research participants. The understanding of those six literature titles would support the preparation for their field experience and future career as a Thai literature teacher.

3.5.3 A paradigm shift for the teaching of Thai literature

According to Thailand's National Strategy for 2018-2037, the teaching of Thai literature has changed by following the government policy of Thailand 4.0 (see section 2.3) and the TQF for the B.Ed. programme. In other words, the role of modern Thai literature teachers is introduced in order to support Thai education within the digital era. Conventional ideas of teaching and learning about Thai literature have proved to be ineffectiveness in improving Thai students' academic achievement (the Office of the Higher Education Commission, 2019a).

Beyond the focus on teaching approach, Muijs and Reynolds (2018) pointed out that *'what we believe about teaching and learning will influence how we teach, and what we think our students can actually learn'* (p. 92). Hence, paradigms, namely philosophical world-views or beliefs that have underpinned the teaching of Thai literature can again be considered for underpinning the teacher's role, the essence of understanding Thai literature and for specific teaching methods. To present the ideas for teaching Thai literature, their conventional and newer teaching concepts are shown in the following table 3.5.3.

Table 3.5.3 A comparison between conventional and newer concepts for the teaching of Thai literature

Topic	Conventional teaching concept	Newer teaching concept
Teacher's role	<ul style="list-style-type: none"> • Teacher as the third parent • Teacher calls student '<i>luke sid</i>' in the Thai language which means a student is seen as a learner as well as a son or daughter. 	<ul style="list-style-type: none"> • Teacher as a knowledge facilitator or a teaching coach • Teacher as a colleague or member of a team • Teacher calls students '<i>nug sukxa</i>' or '<i>phu rean</i>' (a student is seen as a learner.)
The essence of understanding Thai literature	<ul style="list-style-type: none"> • The content of Thai literature is found within a paper book. • Thai literature can be understood through reading and face-to-face discussion. • Teacher is seen as an expert in Thai literature. 	<ul style="list-style-type: none"> • The content of Thai literature can be found in a paper book as well as online e.g. websites, YouTube and Facebook. • Thai literature can be understood by means of reading, listening and watching in social media. • Teacher might not have to be an expert, but he or she should have skills required for searching and selecting content for the teaching of Thai literature.
Teaching methods	<ul style="list-style-type: none"> • Lecture • Recitation • Reading rhymes in poetry • Question-answer • Line-by-line paraphrasing and/or translation • Poem interpretation and analysis • Individual and group assignments 	<ul style="list-style-type: none"> • Student-centred learning • Problem-based learning • Project-based learning • Outcome-based learning • Self-directed learning • Collaborative learning • Using digital technology for teaching

As shown in Table 3.5.3, the conventional concept of the teacher's role is different from the new idea as a modern Thai literature teacher. In Thai culture, father and mother are the most highly respected people. A teacher is the next most highly respected person. He or she has traditionally been praised as the third parent who provides academic knowledge, helpfulness and kindness to students (Khowsurat, 2011; Sangwaree, 2017). In the view of traditional teachers, students are not only learners, but comparable to sons and daughters, and are addressed as '*luke sid*' (*luke* means son or daughter, *sid* means student).

However, this traditional belief has been replaced by the new teaching concept in which the teacher is a knowledge facilitator or coach who gives academic suggestions to students (the Office of the Higher Education Commission, 2019a). The new generation

of Thai students view traditional teaching methods as incompatible with modern values of freedom and individuality, sometimes known by the slang word ‘*indie*’ (Götzenbrucker and Köhl, 2014; Sujjapun, 2017). The role of the modern Thai literature teacher is to be the students’ colleague or just a member of the team – a situation which tends to reduce the interpersonal relationship gap between teacher and student. Thus, a student is called ‘*nug sukxa*’ or ‘*phu rean*’ meaning learner (Sinlarat, 2015b).

Traditionally, Thai literature has been understood by virtue of reading paper books and face-to-face discussion. A teacher was seen as an expert in Thai literature. His or her expertise was accumulated individually over time and was expected to gain a certain level of insight into the content of Thai literature, failing which, he or she would not be allowed to teach in a classroom (Devayasuvan, 2011). However, following the new educational policy, this conventional concept has changed. According to the Office of the Higher Education Commission (2019a), Thai literature can easily be found online. Students can search any subject matter themselves. Hence, the expertise of modern Thai literature teachers can more readily refer to the skills required for searching and selecting contents for teaching (the Office of the Education Council, Ministry of Education, 2019).

However, this new reality has the drawbacks of allowing insufficient understanding of Thai literature on the part of the teacher. Supanvanit (2014) claimed that teachers are often unable to recognise literature titles or worthy poems and cannot sufficiently explain Thai literary history to provide further knowledge to their students or help them gain more understanding and appreciation (Thongaht, 2013).

According to the Office of the Higher Education Commission (2019a), the application of new teaching approaches is advised for the enhancement of the B.Ed. programme in diverse subjects, including Thai literature. These new approaches are presumed to

improve Thai students' academic achievement and critical thinking skills, whereas conventional teaching's reliance on memorisation and translation is now seen as ineffective (Changkhanyaun, 2017). Nagavajara (2010) claims that students attempt to remember worthy poems and their lecturer's ideas for a given test. They also paraphrase and/or translate every word of the poems. Supanvanit (2014) shows that most teachers would like their students to deeply analyse the literature's components rather than merely understand the coherence of the literature. Hence, new teaching methods can be a worthy option for Thai literature teachers to consider.

For this research, the conventional teaching concept is adopted for the teacher's role and the essence of understanding of Thai literature, whereas a combination of the conventional and the new ideas is applied in relation to the teaching method. The participants came from different regional areas of Thailand. They were rural students studying for five years in Bangkok. They were lonely, away from their families. According to the Office of the President, Capital City University (2015b), loneliness and insufficient preparation for study result in withdrawals from bachelor degree programmes in every academic semester (the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016). Consequently, the traditional concept of the teacher as the third parent is seen as paramount for the role of the teacher.

Not only academic guidance is required for students in Capital City University. Kindness and care in their daily lives are also essential to encourage them in their studies (Moonsadang, 2014; Sood et al., 2018). This idea looks closely to the traditional role of teacher '*in loco parentis*'. It can refer to the parental authority over students (Carlisle, 2017). In other words, a teacher has similar rights and responsibilities as a parent in the duty of care as well as in the provision of restraints and punishments. However, it must be said that this traditional idea could have some negative impact on student learning (Mampane, 2018).

This '*in loco parentis*' idea is different from the concept adopted in this research. According to the Office of the President, Capital City University (2015a), the right to discipline students in Capital City University is based on the consensus of the faculty committees and the University Council. In other words, lecturers are not allowed to provide a correction to students immediately. Any abuse must be reported according to the university regulations. The power of the lecturer is limited to oral warnings (Sinlarat, 2015b).

In furtherance of the understanding of Thai literature, although its supportive resources can be found online, the reading of the text of Thai literature is still important. If a teacher does not read the text, he or she will not be able to correctly clarify and explain its content to students (Thongaht, 2013). Additionally, they will lack expertise in Thai literature because of insufficient fundamental knowledge. Hence, the conventional teaching concept is adopted in this research.

Regarding procedures employed to teach Thai literature, although traditional approaches are not promoted in a classroom, they are required to clarify difficult parts of the reading of Thai literature in relation to prosody, idioms and ancient languages such as Pali and Sanskrit (Ketmankij, 2015). Hence, traditional teaching methods are applied in this study with respect to interpretation of poems, analysis and face-to-face discussion. They are combined with the newer concept of collaborative learning. This concept is explained in section 3.5.4.

3.5.4 Considering the SACM: American learning activities within a Thai literature classroom

The SACM is based on an American pedagogical concept, and it can give rise to a questioning the application of the SACM within a Thai educational and cultural context. For this section, the SACM was clarified with respect to the research area

regarding the learning of Thai literature. The challenges of this teaching model were considered in association with a discussion topic, learning arrangement, teacher - student interactions and Thai students' learning styles. Although students can show their opinions independently in SACM activities, especially in discussion and debate, sensitive about the royal family, the military and religion should be respected and such topics treated cautiously and appropriately (Fry, 2018; Kipgen, 2017).

Although Thailand's system of government is a constitutional monarchy, based on democracy, but the freedom to publicly criticise sensitive groups has been limited in Thai culture (Hewison, 2014). Within a Thai literature classroom, Thai literature themes and ideas are often related to the admiration of the king and the faithfulness of Buddhism. Thai literature also frequently presents the idea of nationalism and the importance of the military (Ketmankij, 2015). Teachers have to avoid speaking negatively about the royal family, military and religion, especially Buddhism. In other words, such topics may well be inappropriate for discussion and debate within a Thai literature classroom. This limitation in Thai culture can be very different from other cultures such as the American cultural style regarding the importance of equality and the freedom to criticise (Campbell and Kean, 2011).

In preparation for utilising the SACM to teach, the teacher was comparable to a facilitator who guided the search for supportive evidence through discussion and debate. Students played an essential role by sharing their opinions and experience within their groups. Although the SACM concentrates on a group process, it avoids students' group preferences which can give rise to group member characteristics such as similarity of gender, ethnicity and religious affiliation. In this instance diverse perspectives resulting from group discussion and debate would be limited (Johnson, 2015). To prevent this drawback, groups were chosen by the teacher. To give some assurance of the diversity necessary within the concept of collaborative learning.

With the SACM focusing on discussion and debate activities, improvement in academic achievement, critical thinking and conflict resolution was the expected outcome. However, learning by following discussion and debate activities can be limited in Thai culture in the field of teacher and student interactions. The concept of social hierarchy in Thai society dictates that children must respect adults, especially parents, elderly family members and teachers (Gunawan, 2016). Thai students are to be obedient and polite to those respected people. Traditionally, if a student tries to argue any ideas provided by a teacher, the student will look aggressive and rude (Drennan and Bockern, 2012). Hence, Thai students can find it difficult to present an opposing perspective to their teacher, even if the opinion is supported by reason and evidence (Khowsurat, 2011).

This culturally influenced traditional learning style (refer to the term ‘studying technique’ in section 1.0) can prevail in a Thai literature classroom. Students were comfortable following the ideas of teacher regarding the analysis of Thai literature. However, the application of SACM activities can only be achieved by discussion and debate between students, inclusive of teacher, but students were not comfortable arguing with their teacher about themes and ideas presented in Thai literature (Thongaght, 2013).

So, the typical Thai studying technique does not support SACM activities regarding the reading of Thai literature. According to the seven steps of the SACM, students were required to prepare supportive evidence prior to discussion and debate. In other words, they needed to read the assigned Thai literature prior to starting the SACM activities. If they read during SACM activities, they would not be able to complete their reading and discussion because of the time needed for translating and analysing poems (Supanvanit, 2014).

Although students can easily search online for translated versions of poems in order to understand them in a general sense, the accuracy of translation is not guaranteed. Students can lack experience in reading Thai literature in its original form and therefore lack enough supportive evidence and clear understanding to discuss and debate. When making an attempt to follow the SACM, namely the American teaching model, the limitations of Thai students' studying techniques should be considered. Self-discipline and responsibility for doing the assigned reading prior to class attendance were paramount for SACM activities (Johnson, 2015).

3.6 Conceptual framework

To provide an overview of the research structure, a conceptual framework is demonstrated in the following diagram:

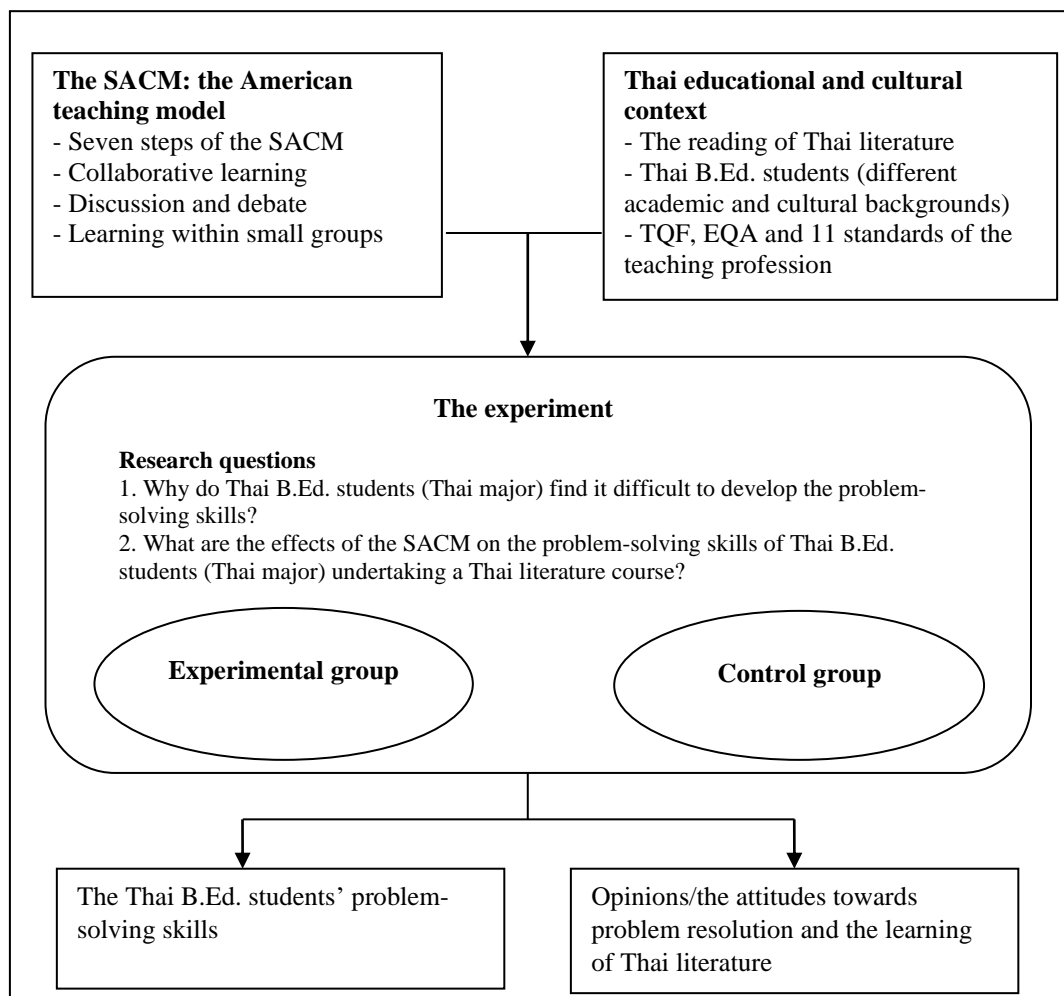


Figure 3.6 the conceptual framework

The conceptual framework was created in relation to the literature review and research questions. The review of literature can be considered in connection with the application of the SACM, namely the American teaching model, within a Thai literature classroom. Although Western, especially American pedagogy is generally accepted in Thai education as an educational innovation, it must be considered in relation to cultural differences.

For this research, the SACM was applied within Thai educational and cultural contexts with input from a Thai teacher together with B.Ed. students in a Thai literature course at Capital City University in Bangkok, Thailand. The course was based on the Thai higher educational system in terms of the TQF, EQA and the 11 standards of the teaching profession. The research questions were: 1) Why do Thai B.Ed. students find it difficult to develop problem-solving skills? and 2) What are the effects of the SACM on the problem-solving skills of Thai B.Ed. students (Thai major) undertaking a Thai literature course?

To answer these questions, the research was designed as a field experiment. Research participants were B.Ed. students (Thai major). They were divided into Experimental and Control groups. The experimental group was taught by following the SACM. The control group was taught by means of conventional teaching methods. Prior to the experiment, the B.Ed. students' problem-solving skills and attitudes toward problem resolution and the learning of Thai literature were tested. They were tested again after the experiment. The research design is explained in section 4.2.

3.7 Research gap

To understand the area of uncertainty around the research problem, gaps can be seen in this research area regarding the academic controversy, problem-solving skills and the studying of literature. Samples of research published in English and the Thai language

were studied in order to provide a fuller picture of a research gap. With regard to the topic of academic controversy, there were studies of the academic controversy strategy (Bruen et al., 2016), academic controversy technique (Farzaneh and Nejadansari, 2014; Jacob, 2010; Santicola, 2013), academic controversy method (Komara and Sriyanto, 2018; Lo and Adams, 2018), and academic controversy teaching model (Avery et al., 2014) in relation to the fields of social studies, politics and the teaching English as a foreign language.

For the topic of problem-solving skills, research projects were conducted in association with mental health, anxiety and depression (Abdollahi et al., 2014, 2015; Daele et al., 2013; McAuliffe et al., 2014; Stillmaker and Kasser, 2013), social media and online gaming (Adachi and Willoughby, 2013; Bani-Salameh et al., 2011; Çevik, 2015; Hooshyar et al., 2018; Karagozlu, 2017; Mayotte, 2010) and special education (Gómez-Pérez et al., 2019; Uçar et al., 2017) in relation to the fields of psychology, educational technology, science, mathematics, physics and medicine. In Thailand, research was related to the use of social media and online gaming (Boonthawin, 2018; Boonyanuson, 2011; Khongprasert, 2017; Kongchoo, 2016; Krutthakart, 2014; Saard and Vongtathum, 2016), science, technology, engineering and mathematics (STEM) education (Kiattawee, 2017; Sooksamran, 2016) and research-based learning (Ramsiri, 2013; Thasook, 2014) in connection with the fields of mathematics, science, engineering, educational technology and early childhood education.

With regard to the learning of literature, research was associated with the Integration teaching method (Delaram et al., 2017; Romero and Bobkina, 2015), problem-based learning and research-based learning (Eman, 2017; Rahman et al., 2016), Blended learning (Dwaiki et al., 2016), the application of Reader Response Theory (Choudhary, 2016) and the constructivist approach (Villanueva, 2016) in relation to the development of critical thinking, creative thinking, academic achievement, reading comprehension

and analysis, motivation and attitudes toward the reading of literature. Those research projects were conducted in the field of teaching English as a foreign language.

In accordance with the learning of Thai literature, research in Thailand was related to the application of graphic organisers (Jankaew, 2016; Klahan, 2014), collaborative learning Jigsaw approach (Pairat, 2016; Pungpeekeaw, 2014), the Reader Response Theory (Kachachai, 2014; Kumnuansin, 2013), the use of social media and online gaming (Channual, 2017; Cholsaranon, 2015; Pornwattanakul, 2015), the Jurisprudential Inquiry Model (Maneesorn, 2014), the use of questions by following the concept of Bloom's taxonomy (Phoram, 2017) and the application of Buddhist principles and didactic approach (Homfung, 2014; Huntra, 2015) in relation to the development of critical thinking, academic achievement, reading comprehension, retention, writing skills and attitudes towards problem resolution. Those research projects were carried out in the fields of teaching Thai literature and special education.

On reviewing literature concerned with academic controversy, problem-solving skills and the learning of Thai literature, not much research was found of the SACM in the context of the learning of Thai literature. This represented a noteworthy gap in knowledge. This research has intended to fill that gap by evaluating the SACM and its impact on Thai B.Ed. students' problem-solving skills in a Thai literature course.

3.8 Summary

The aim of this literature review chapter is to provide an overview of fundamental topics related to the research questions. Initially, the educational system of Capital City University in Bangkok, Thailand was explained in order to inform about the characteristics of research participants who were B.Ed. students (Thai major). This was followed by a clarification of problem-solving skills required in connection with Thai culture and the learning of Thai literature. In keeping with the TQF and the National

Strategy between 2018 - 2037, the concept of teaching Thai literature has changed regarding the role of teacher, the essence of understanding Thai literature and teaching methods. These changes can be challenging for the B.Ed. students (Thai major). Moreover, the application of the SACM in this research was discussed in the light of collaborative learning, Thai culture and Thai student learning style. The conceptual framework was also demonstrated in order to present the research structure. Finally, a research gap was identified with respect to the academic controversy, the problem-solving skills required and the learning of Thai literature. This review of literature can serve as fundamental knowledge to support the research design and the data collection based on the research methodology. Its details are explained in the next chapter.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 Introduction

The research is aimed at evaluating the SACM and its impact on Thai B.Ed. students' problem-solving skills. On account of this research aim, different methods and techniques were employed in terms of research methodology. This chapter presents the methodology adopted in relation to data collection and analysis. Within the chapter, all sections are related to research questions which consist of 1) Why do Thai B.Ed. students find it difficult to develop the required problem-solving skills? and 2) What are the effects of SACM on the problem-solving skills of Thai B.Ed. students studying Thai literature? In an attempt to address the research aim and questions, the chapter was designed by following the field experiment research, namely the study conducted in the B.Ed. programme (Thai major) at Capital City University in Bangkok, Thailand. Within this chapter, research paradigm and research design are introduced. Research participants, sample size and research sampling are also explained with regard to area of the research. Additionally, the methodology employed is clarified in connection with research instruments, pilot study, data collection and data analysis procedure. Ethical considerations and the integrity of research data are also displayed. In association with research questions, this chapter is aimed at justification according to three fundamental questions, namely where, why and how data were collected and analysed?

4.1 Research paradigm

Creswell and Creswell (2018) state that a paradigm can be defined as a world-view which depends on a philosophical perspective. A world-view refers to a way of belief or thinking about the world (Thomas, 2017). In other words, what the world or a phenomenon is like and how it is understood (Cohen et al., 2018; McLinden et al., 2018). A research paradigm has been adopted in this research to provide supportive

reasons behind this methodology. In association with paradigms, philosophical key concepts need to be explained. This section comprises two subsections. The relationships between key elements of research, namely ontology, epistemology, methodology and methods, are explained in subsection 4.1.1. The second subsection in 4.1.2 demonstrates paradigms adopted in the study with respect to post-positivism, interpretivism and pragmatism. These two subsections are clarified below.

4.1.1 The relationships between key elements of research: ontology, epistemology, methodology and methods

Grix (2019) claims that the application of philosophical concepts to a research project can be considered as the relationship of '*building blocks of research*' in connection with ontology, epistemology, methodology and methods (p. 51). Ontology and epistemology are a fundamental step in planning research methodology and methods (Coe, 2017; Flick, 2015). Thomas (2017) offers that different paradigms could lead to different series of the aforementioned four key elements of research. For this research, three paradigms are discussed in the following subsection. The interrelationships between the key elements within each world-view are also demonstrated.

4.1.2 Paradigms adopted in the study: Post-positivism, Interpretivism and Pragmatism

McLinden et al. (2018) point out that different world-views can support research methodology and methods for addressing research questions. This research attempts to address research questions with regard to why Thai students found it so difficult to improve their problem-solving skills and then the extent of their problem-solving skills and opinions after the learning of Thai literature by following a new teaching method, namely the SACM. On account of research questions, three different paradigms, namely post-positivism, interpretivism and pragmatism, were considered as a philosophical

guideline for undertaking this particular research. They can be displayed as in the following comparison table.

Table 4.1.2 Comparison between three research paradigms adopted in the research: Post-positivism, Interpretivism and Pragmatism

Philosophical assumption	Post-positivism	Interpretivism	Pragmatism
Ontology (What is a truth? and what are we considering?)	<ul style="list-style-type: none"> ● Critical realism ● Truth is objectively investigated, but being known imperfectly. 	<ul style="list-style-type: none"> ● Relativism ● Truth is socially constructed. It can be understood differently depending on a particular context. 	<ul style="list-style-type: none"> ● To understand research problems and questions rather than focusing on philosophical beliefs
	<ul style="list-style-type: none"> ● Cause and effect ● Relationships between two types of variable 	<ul style="list-style-type: none"> ● Interpersonal relationships and interactions among research participants 	<ul style="list-style-type: none"> ● Be able to apply different theoretical and/or practical viewpoints for attempting to answer research questions
Epistemology (How is the world or knowledge understood?)	<ul style="list-style-type: none"> ● To be objective ● Scientific measurement 	<ul style="list-style-type: none"> ● To be subjective ● Meanings behind interactions are understood by means of interpretation. 	
Methodology (What is a framework for undertaking this research?)	<ul style="list-style-type: none"> ● Quantitative approaches ● Experiment in a fieldwork 	<ul style="list-style-type: none"> ● Qualitative approaches 	<ul style="list-style-type: none"> ● Combining quantitative and qualitative approaches
Methods (What are specific techniques to collect and analyse research data?)	<ul style="list-style-type: none"> ● Sampling ● Comparing and testing ● Statistical calculation 	<ul style="list-style-type: none"> ● Focus group ● Thematic analysis 	<ul style="list-style-type: none"> ● Using mixed methods to combine and interpret research data ● Triangulation is utilised to check the integrity of research findings.

Adapted from: McLinden et al. (2018)

Table 4.1.2 is a descriptive presentation of the three research paradigms of post-positivism, interpretivism and pragmatism with respect to ontology, epistemology, methodology and methods.

1) Post-positivism

Cohen et al. (2018) claim that a post-positivist world-view focusses on scientific approaches e.g. testing and experimentation (Flick, 2015). However, post-positivism

looks different from an ideal positivist assumption. Bryman (2016) claims that positivism concentrates on an objective way to prove a truth or hypothesis in terms of natural sciences. According to ontological and epistemological assumptions, the relationships between variables are conventionally tested by means of statistical measurement (Bartlett and Burton, 2016). Although a post-positivist assumption accepts the concept of numerical estimation, post-positivism believes that a truth can only be understood imperfectly and probabilistically after conducting research in a fieldwork (Braun and Clarke, 2013; Robson and McCartan, 2016).

According to an ontological viewpoint based on post-positivism, a truth in this research can be considered as cause and effect relationships, namely the association between two types of statistical variable in terms of independent and dependent variables (Grix, 2019). Students' learning of Thai literature results come from different causes, those in the Experimental group from the application of the SACM, those in the Control group from conventional teaching methods. Thai B.Ed. students' problem-solving skills and attitudes towards problem resolution and the learning of Thai literature can be seen as effects or dependent variables.

In keeping with an epistemological perspective, the two types of variable have been investigated by virtue of scientific measurement, namely, statistical estimation. Quantitative approaches have been adopted in this research with respect to a field experimental research design. However, research limitations may become apparent a particular project as a result of the imperfection of randomisation and the lack of hypothesis testing (see section 4.2.1). On account of these drawbacks, the research here could not adhere to an ideal positivist assumption. Hence, it follows that post-positivism can be considered as an appropriate choice to underpin a quantitative view within this research. Nevertheless, to obtain a more complete representative picture an additional

paradigm was thought to be appropriate. Interpretivism offered a different additional world-view for underpinning the research.

2) Interpretivism

To understand Thai B.Ed. students' opinions with respect to the problem-solving skills and the learning of Thai literature, the interpretivist paradigm has been adopted to support a qualitative view. Grix (2019) argues that interpretivism does not follow scientific approaches. It is based on relativist ideas which come from the belief that truths about the social world cannot be objectively assessed because of its complexities. The world is socially constructed and understood by means of interpretation within different contexts. In other words, interpretivism focuses on the understanding of interpersonal relationships and interactions between research participants and a researcher with regard to *'what understandings do the people we are talking to have about the world, and how can we in turn understand these?'* (Thomas, 2017, p. 111). Thus, the interpretivist assumption is an alternative view to post-positivism in relation to the understanding of truth and ways to discover it.

When considering the interpretivist paradigm within the study, an ontological perspective focused on the interactions among research participants, namely B.Ed. students, referring to their opinions in connection with skills required to solve everyday life problems and the learning of Thai literature. Following an epistemological viewpoint, student opinions were considered by virtue of their explanation and interpretation within the Thai cultural and educational contexts.

Following on from ontological and epistemological considerations, focus group discussion as a research method was employed in the qualitative phase of this research. To understand meanings behind B.Ed. student opinions, data resulting from focus group discussions were investigated by means of thematic analysis (Clarke and Braun, 2017).

The interpretivist world-view was able to demonstrate the diverse perspectives of B.Ed. students. This was not possible by merely following statistical research data resulting from a post-positivist assumption (Bartlett and Burton, 2016).

Gray (2018) claims that the interpretivist assumption seems close to a social constructivism/constructionism with regard to epistemological viewpoints. However, the social constructivist paradigm concentrates on the interactions of individuals rather than group participation (Robson and McCartan, 2016). In other words, social constructivism focuses on how participants understand and construct their individual world or knowledge (Flick, 2015; Robson and McCartan, 2016). According to research design within this research, a comparison of opinions between the two student groups, Experimental and Control, was considered in the qualitative phase. Hence, qualitative research data can be seen as the perspectives of student groups. Qualitative data were also collected by means of negotiation and discussion within each student group. As a result, social constructivism seemed not to support the qualitative phase in the research. Rather, the interpretivist assumption, which is generally adopted in qualitative research, looked more appropriate for advocating qualitative methods within this research.

3) Pragmatism

Creswell and Creswell (2018) claim that a pragmatic paradigm can be seen as a third world-view which ignores the questioning of reality or a truth or how to discover it. Pragmatism emphasises '*whatever philosophical assumption works best for a particular research problem at issue*' (Robson and McCartan, 2016, p. 28). The pragmatic paradigm will supply answers to research questions. Research procedures are also employed by following pragmatism with respect to '*fitness for purpose*' (Cohen et al., 2018).

Notwithstanding any disregard for the terminology of truth, the pragmatist assumption can generally accept different philosophical world-views, methodologies and methods. These building blocks of research can be applied as appropriate ways to solve particular research problems and to address research questions (Creswell and Creswell, 2018). Conventionally, quantitative and qualitative approaches are combined and interpreted to satisfy a mixed methods design (Gray, 2018).

On account of undertaking this research in a fieldwork, namely the B.Ed. programme (Thai major) at Capital City University in Bangkok, Thailand, pragmatism was adopted in an attempt to answer research questions. Within the fieldwork, the research looked complicated after consideration of the different academic and cultural backgrounds of research participants and the particular educational system of Capital City University. This situation tended to limit the identification of an absolute answer to each research question. To clarify these complexities, the pragmatist paradigm can be seen as a suitable viewpoint to support the research.

Following a pragmatic approach, mixed methods were applied in the research. In other words, quantitative and qualitative approaches were utilised within the methodology. Both quantitative and qualitative research data were analysed separately, then they were compared and contrasted in connection with the interpretation of research findings (Creswell and Creswell, 2018).

Due to the combination of different research procedures, research data resulting from the procedures might overlap or appear unmatched because of different philosophical and methodological perspectives (Cohen et al., 2018). In an endeavour to overcome this drawback, the trustworthiness of research findings was considered according to the pragmatist paradigm (Creswell and Creswell, 2018; Robson and McCartan, 2016). Trustworthiness can be defined as the integrity of research results which can persuade

readers that research findings were '*worthy of attention*' (Nowell et al., 2017, p.3). Morse (2018) argued that the term of trustworthiness was comparable to the validity and reliability of research data. For this research, research data were investigated in relation to research questions. Each element of both quantitative and qualitative data was also compared and contrasted or corroborated by virtue of triangulation to check validity and reliability.

In brief, a research paradigm can be seen as a philosophical belief to frame a research project. On account of the relationships between key elements of research with respect to ontology, epistemology, methodology and methods, a different paradigm can lead to a different series of the four essential components. For this research, consideration was given to the three different philosophical world-views of post-positivism, interpretivism and pragmatism. Although they consist of distinct fundamental concepts and characteristics, they were employed to underpin this particular research as a fieldwork at Capital City university in Bangkok, Thailand. Moreover, the three philosophical world-views can help towards the realisation of appropriate ways to understand and interpret research data in order to answer research questions.

4.2 Research design

A research design can be defined as a plan for a research project which attempts to address research questions (Robson and McCartan, 2016). Additionally, a research design can be seen as a '*scaffold*' of the research process in relation to data collection and analysis (Bryman, 2016; Thomas, 2017, p. 139). Hedges (2017) argues that different research designs are created depending on different research problems. Research designs also often rely on empirical data which can be collected. For this particular research, the research design was conditioned somewhat by the inclusion of fieldwork. On account of conducting the research within a particular group of Thai B.Ed.

students in Thailand, the research might be linked to a case study research design in relation to a target population within a specific location (Grix, 2019).

Nevertheless, the comparison ends there on account of the specific characteristics of the research. Yin (2018) points out that case studies concentrate on empirical research data or actual human behaviours e.g. opinions and interactions without conditions manipulated according to an intervention. In contrast, this research focuses on controlled conditions in association with randomisation and equivalence between two student groups (Cohen et al., 2018). Thus, this research design can be considered more as a field experiment rather than a case study.

In an endeavour to address research questions, the research was planned to combine different quantitative and qualitative views. The field experiment was a quantitative view which tended to predominate in this research design. Focus group discussion was employed as a qualitative viewpoint to provide for a comparison and contrast with numerical research data. The combination of both views can be seen as following the mixed methods design. Thus, this section consists of the three phases of field experiment, focus groups and mixed methods. The following diagram in Figure 4.2 is provided as an aid to the understanding of the research design.

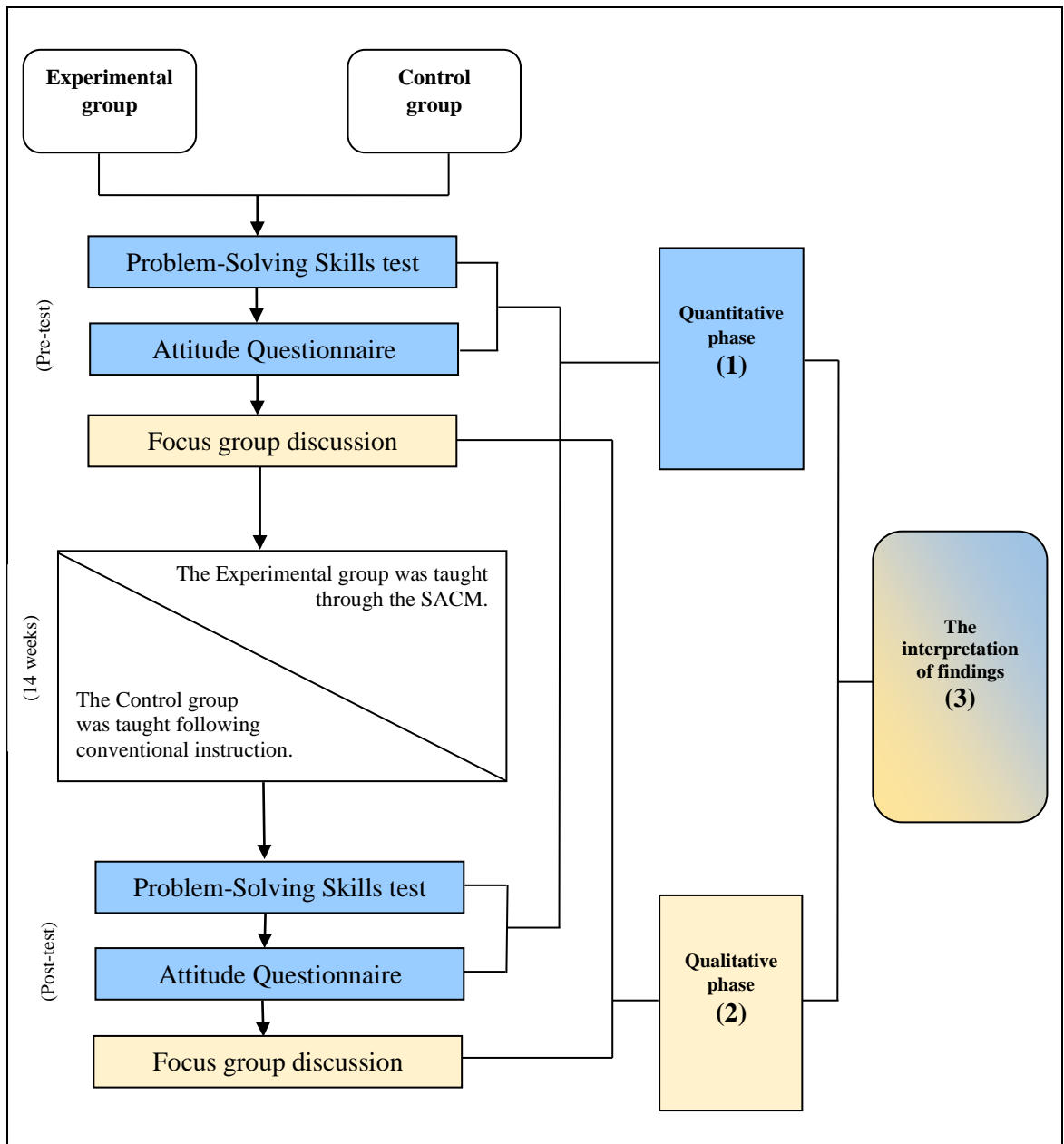


Figure 4.2 The research design

As shown in Figure 4.2, two student groups, namely Experimental and Control, were compared in the research. Both student groups were tested by means of identical research instruments in relation to a problem-solving skills test, an attitude questionnaire and focus group questions. Quantitative and qualitative data resulting from these instruments were collected and analysed by following the quantitative and qualitative phases. Within the third phase, data were interpreted with respect to the mixed methods approach. Explanatory details are given in the following subsections.

4.2.1 Quantitative phase: the field experiment

To evaluate the SACM and its impact on Thai B.Ed. students' problem-solving skills, the field experiment was employed in relation to a comparison between the two student groups. Thomas (2017) claims that the field experiment is based on evaluation research which is often applied to investigate new teaching techniques within a fieldwork e.g. a course or a classroom (Gerber and Green, 2012; Tymms, 2017). However, the field experiment looks different from a laboratory experiment design with respect to the manipulation of variables and settings. Bryman (2016) states that both field and laboratory experiments are aimed at investigating cause and effect relationships in relation to variables, namely, changes between factors. The field experiment focuses on variables based on human behaviours, whereas the laboratory experiment concentrates on scientific variables.

With regard to an experimental setting, the field experiment in education is often carried out in a classroom as a real-life location, while the experiment design for consideration of science based variables normally includes use of a laboratory (Robson and McCartan, 2016). As an intervention within a real-life setting, the field experiment has greater limitations than the laboratory experiment with respect to randomisation, sample size and ethical considerations. Hence, the field experiment is not a perfect practical application (Gerber and Green, 2012). The field experiment design sometimes appears as a quasi-experiment which lacks randomisation in the formation of experimental and control groups (Cohen et al., 2018). However, the quantitative research design of this research does not represent a quasi-experiment because research participants were, in fact, randomly divided into Experimental and Control groups.

Cohen et al. (2018) point out that an additional key aspect based on the field experiment can be considered with respect to the comparisons of research data between the two student groups both before and after an intervention. The effectiveness of a new

teaching method can best be assessed by comparisons made, pre and post intervention between a control group and an experimental group. The control group is taught by conventional methods whereas the experimental group is taught following the new method. Without the use of the two groups (experimental and control) it would be difficult to assess the extent of support for student learning given by the new method (Thomas, 2017). The fundamental research comparisons idea is facilitated by use of an experimental and a control group. Without the use of the two groups for comparison, apparent improvement in learning might be caused by factors extraneous to the new teaching method which could go undetected (Tymms, 2017). Experimental and control groups are different as regards teaching methods but nevertheless must both adhere to the principle of randomisation. This procedure is in fact known as a randomised controlled trial (Cohen et al., 2018; Imai, 2017).

With regard to comparisons before and after an intervention, they are considered in association with differences within each student group. In other words, how the research data in post-test differ from pre-test. Although this comparison procedure is generally applied in experimental research design, there may be bias in post-test scores.

On account of testing two times, namely pre-test and post-test, students will be familiar with the test a second time around. Hence, scores in post-test might have a higher bias (Flick, 2015). To avoid this drawback, both student groups in the research were tested prior to the intervention. After the completion of the fourteen-week experiment, they were tested again by using the same research instruments. Even though both student groups were examined twice, they would not be familiar with questions and details within research instruments because of the long period between interventions. Moreover, during the learning of Thai literature as an experiment, any questions within research instruments were not mentioned in learning activities and worksheets. Therefore, pre and post intervention comparisons can be accepted as unbiased in the research.

The field experiment was adopted in the quantitative phase, but the lack of hypothesis testing raised questions about dependability. Gray (2018) reports that experimental research is conventionally designed after first of all proving a hypothesis. In other words, the aim of an experiment design is to first of all test a hypothesis to furnish an indication of research outcomes (Flick, 2015). But the field experiment within the research did not attempt to test any hypothesis. Tymms (2017) claims that it is hard to make predictions in educational research because of the complicated task of proving a hypothesis (Gerber and Green, 2012; Thomas, 2017). The research's focus on the SACM was a new departure in teaching for Thai students. It is based on conceptual American teaching methods which are very different to those employed in Thailand. Little SACM research is currently available, suggesting a lack of supportive evidence for hypothesis testing.

Cohen et al. (2018) argue that when undertaking research based on the field experiment design researchers should be aware that there might be other causes not intentionally studied that might be having an effect on research outcomes. Such are often classed as extraneous variables. For this research, extraneous variables can be seen in relation to student absenteeism and students taking other Thai literature courses.

During the intervention lasting fourteen weeks, student absenteeism within both student groups was a factor in some experiment sessions. Research participants as B.Ed. students (Thai major) were enrolled in Thai literature courses according to the requirements of the B.Ed. programme of Capital City University in Bangkok, Thailand. Research ethics required that the rights of those students be respected so that forced attendance was not possible neither could the researcher forbid attendance at other Thai literature courses. But absenteeism could lead to a lack of learning opportunities to enable completion of all sessions of the intervention. Students registered in extra Thai literature courses, could receive additional knowledge and reading experience of Thai

literature. These two cases alone could have an unexpected impact on research data otherwise not envisaged for the field experiment. In view of these difficulties, quantitative data resulting from the field experiment were further investigated by comparison with an alternative research data view provided by qualitative data. Focus group discussion was the source of this alternative data and is explained in the next subsection.

4.2.2 Qualitative phase: focus group discussions

Focus groups were employed in this research as a method for collecting qualitative research data, namely, group opinions with respect to Thai students' problem-solving skills related to the learning of Thai literature. Cohen et al. (2018) state that a focus group can be seen as a type of group interview which provides the different perspectives of group members at the same time (Braun and Clarke, 2013). The general impression is that an individual interview appears to be more appropriate for in-depth data collection than the focus group because it allows for independent speaking free from domination by other group members, by the experimenter itself, or by focus group discussion and the interpretation of research findings (Braun and Clarke, 2013; Robson and McCartan, 2016).

However, for this research, focus groups were utilised by virtue of face-to-face discussion before and after the experiment. Braun and Clarke (2013) claim that a face-to-face discussion is a traditional way to explore interaction and opinions among focus group members (Gray, 2018). Hence, the use of face-to-face discussion can be seen as a convenient approach for observing and discovering the opinions of student groups in a fieldwork.

Gibbs (2017) argues that the use of focus groups seems inappropriate for hypothesis testing with pre-test and post-test measurement because with focus groups the emphasis

is on qualitative results rather than on the analysis of numerical data. However, the focus groups were conducted before and after the experiment because their qualitative results were required to triangulate numerical data (Cohen et al., 2018; Gray, 2018).

Both Experimental and Control groups consisted of identical major characteristics in relation to the number of group members, gender, religious affiliation and domicile. Meanwhile, aspects within groups were diverse. On account of these different student backgrounds, interactions of shyness and silence were seen during focus group discussion, especially prior to intervention.

In an attempt to motivate student interactions, all group members were asked by the researcher as a moderator to share their opinions with respect to agree and disagree questions. Moreover, the strong dialect accent of Muslim students who spoke Bahasa Melayu Pattani as a mother tongue suggested that they did not understand clearly communications in the Thai language. Giving due consideration to this limitation prior to focus group discussion, the researcher was allowed to repeat student opinions for verification whenever their opinions in the Thai language were not clear.

After the completion of focus group discussion of both student groups according to the research design, qualitative data resulting from focus groups were investigated by means of a thematic analysis (see section 4.9.2). They were also compared and contrasted with quantitative data in association with an experimental mixed methods approach. This topic is explained in the next subsection.

4.2.3 The phase of interpretation of findings: an experimental mixed methods approach

The interpretation phase was based on the fundamental concept of combining quantitative and qualitative data within the research to satisfy an experimental mixed

methods approach. Creswell and Guetterman (2019) claim that this approach can be defined as using a mixed methods design within an intervention. Conventionally, qualitative data are added or embedded into an experiment. The approach is also known as an embedded-experiment design (Edmonds and Kennedy, 2017). The aim of the experimental mixed methods approach is to *'enhance the application of the experiment for determining the impact of an intervention'* (Plano Clark and Ivankova, 2016, p. 145). For this research, the experimental mixed methods approach was applied to support the validation of the effects of the SACM on Thai B.Ed. students' problem-solving skills with the aid of answers to research questions (Biesta, 2017).

The design of mixed methods within the research can be demonstrated as *'QUAN+qual'*. It refers to an unequal weight between quantitative and qualitative procedures (Bryman, 2016). According to the mixed methods design, uppercase letters refer to quantitative data collection and analysis as having a greater emphasis in the study through the intervention and by means of scores resulting from the problem-solving skills test and the attitude questionnaire. Lowercase letters refer to qualitative data collection and analysis which can be seen as having a subsidiary role through student opinions resulting from focus group discussions. In addition, the combination symbol (+) can refer to a convergent data collection method. In other words, both quantitative and qualitative data were collected during the same period of data collection.

With regard to the application of the experimental mixed methods approach in this particular research, challenges can be considered in relation to controlled conditions based on experimental research, the unequal weight of mixed methods design and the combination of different types of data. By looking at the essential characteristics of experimental research, controlled conditions in the two student groups are required with respect to randomisation and equivalence between Experimental and Control groups. Nevertheless, manipulation of these conditions might be limited because of embedding

a qualitative method into the intervention (Creswell, 2015). For example, a qualitative method is not employed in parallel to both experimental and control groups. Randomisation is not applied to research sampling within a qualitative method; there was no purposeful technique employed in a sampling strategy. These limitations might have had an effect on the experiment (Plano Clark and Ivankova, 2016). By following the aforementioned conditions of experimental research in relation to using focus group discussion in both student groups, the lack of randomisation was avoided. In fact, the eight participants in each group were randomly selected to share their opinions based on identical focus group questions.

When considering the weights applied in the mixed methods design, we see that quantitative methods with regard to data collection and analysis are emphasised in the research over and above qualitative methods. Additionally, the number of quantitative research instruments is higher than the qualitative research instrument. The quantitative research instruments consisted of the test and the questionnaire whereas the qualitative research instrument comprised only questions for focus group discussion.

However, it should not be assumed that the unequal weight of mixed methods design provides an imbalance of research data. The quantitative and qualitative instruments have distinct characteristics. The proportional inequivalence of the quantitative and qualitative aspects of the research design did not minimise their effectiveness. Both aspects play '*equally important roles*' in association with the application of triangulation for understanding research problems as well as attempting to answer research questions (Creswell, 2015, p. 4; Creswell and Guetterman, 2019).

The experimental mixed methods approach might give rise to questions about the combination of different types of data. The research paradigm indicates that quantitative and qualitative data are based on different philosophical world-views. Their

characteristics also differ. One is numerical results based, but the other is opinions based solely on group discussion. At first, combining between these two types of data appeared to be problematic. Even though the differences between quantitative and qualitative data are readily apparent, they are nevertheless both addressing questions about Thai B.Ed. students' problem-solving skills and the learning of Thai literature. On account of this commonality, quantitative and qualitative data were combined and interpreted by considering each element of data with regard to statistical outputs and themes resulting from focus group discussions. They have also been presented by means of comparison tables showing '*a joint display of data*' (Creswell and Creswell, 2018, p. 220).

4.3 Research participants

The participants in this research were in a second year B.Ed. programme (Thai major) at Capital City University in Bangkok, Thailand. These students were suitable participants for the following reasons. Firstly, they were ideal on account of the problem-solving skills requirement of a B.Ed. programme. Secondly, they had to comply with the learning outcomes of the TQF as well as meet the educational standard of the Teachers' Council of Thailand (refer to Teachers' Council of Thailand, 2018).

These participants played a vital role towards the potential success of the research. The characteristics of research participants were associated with the concept behind the SACM in relation to the importance of diversity within each student group. The SACM is based on collaborative learning; students within a small group should be heterogeneous (e.g. gender, ethnicity, abilities and experience) in order to aid the effectiveness of shared knowledge and opinions (Johnson, 2015). Details about the required characteristics of research participants can be found in Chapter 3, titled, Literature Review. Even though research participants, namely B.Ed. students, were studying in the same field and following the same programme, their qualifications and

experiences were likely to vary notably which is helpful when attempting to assess the SACM.

According to the Office of the President, Capital City University (2015b), more than 60 per cent of undergraduate students came from Southern and North Eastern Thailand. Moreover, nearly 40 per cent were Muslim who usually spoke Melayu or Bahasa Melayu Patani as their mother tongue. Additionally, on account of open admission which was unique to the Capital City University educational system, more than 30 per cent of undergraduate students were workers who were following the programme as their second bachelor degree. Here again we see the variety of characteristics in terms of gender, religious affiliation, dialect, domicile and educational experience which could only help toward a true fair assessment of the SACM.

Furthermore, the aim of the B.Ed. programme in question is to prepare students for the teaching profession, so that students who were following a Thai major degree also learned Thai literature for the purpose of teaching it in secondary education. Although Thai literature is only part of the Content Area in the Thai Basic Education Core Curriculum (B.E. 2562), it is, nevertheless, compulsory in Thai basic education at elementary and secondary levels (Bureau of Academic Affairs and Educational Standards, Ministry of Education, 2009). Therefore, students who were studying in the second year of a Thai major degree programme as participants in this research would have appropriate qualifications in connection with the learning of Thai literature.

Based on the extent of enrolment and the requirements of the research, participants consisted of 72 B.Ed. students enrolled in a Thai literature course. They can be defined as a target population, namely, the definite whole number of interested individuals with respect to a statistical viewpoint (Creswell and Guetterman, 2019; Reid, 2014). According to the Registration Office of the Faculty of Education, Capital City

University (2016), there were 301 students (Thai major) who enrolled in the second year of that Faculty of Education programme in the year 2017. However, these 301 students cannot be seen as this particular population for purposes of statistical analysis. With regard to ideal statistical measurements, samples are usually used to infer population characteristics. The research sample can only be considered as representative of the population if it is truly randomised (Salkind, 2017). If these 301 students were considered as the research population, the representativeness of a research sample could not be demonstrated. This limitation was apparent when attempting to conduct fieldwork in Capital City University to obtain research data.

According to the Registration Office of the Faculty of Education, Capital City University (2016), the 301 students were enrolled in different B.Ed. courses (Thai major) each of which consisted of a different schedule time, content and lecturer. It was not possible for the aforementioned research design to deal with these differences in order for the 301 students to be the research population. All attempts to have the 301 students as the considered research population proved to be overwhelmingly problematic. Hence, the target population in this research, namely the 72 students, was based on student enrolment within just one particular Thai literature course.

Although the size of the target population seemed small, the 72 students consisted of fundamental characteristics just like the 301 B.Ed. students in relation to gender, religious affiliation and domicile. Furthermore, percentages of fundamental characteristics of the target population looked close to the entire 301 students. In other words, the number of male students was lower than the female students. The Buddhist students were higher in number than the Muslim students. The majority of B.Ed. students in the second year came from North-Eastern and Southern of Thailand (the Registration Office of the Faculty of Education, Capital City University, 2016). On account of these similar fundamental aspects between the target population and the

entire 301 students, such similarities can be seen as supportive of the true representativeness of research data (Cohen et al., 2018).

4.4 Sample size

For this research, there were two equal research samples, namely Experimental and Control groups of 36 each. In accordance with the SACM, small groups of four students were considered as ideal for collaborative learning. Consequently, there were nine small groups within the Experimental sample of 36 which enabled conclusions to be drawn about the relevance of the SACM (Estes and Mintz, 2016; Johnson, 2015). However, the sample size of 36 looked limited for purposes of statistical calculation. Dancey and Reidy (2017) argue that a small sample size can have an adverse effect on the accuracy of a frequency distribution. In other words, scores resulting from a test or a questionnaire might or might not indicate a normally distributed population because of a small sample size. It can lead to the selection of an erroneous statistical test from a choice between parametric and non-parametric tests which refer to different levels of the power of statistical prediction (Argyrous, 2011; Reid, 2014).

Although the sample size looked limited, it was still acceptable as a minimal requirement for statistical estimation. Cohen et al. (2018) point out that a sample size should be more than thirty participants. Within this research, a sample size of 36 was adequate for purposes of quantitative data analysis (see 4.9.1).

In this study the sample size in the qualitative phase is smaller than that in the quantitative phase (Braun and Clarke, 2013). The number of students in a focus group can be seen as a sample size. Approximately 5-10 participants of a focus group can be asked to be involved in a research project (Bryman, 2016; Sarantakos, 2013). The group size of the research consists of eight students per group, that is, Experimental and

Control groups of 8 each. This sample size seemed to be appropriate with respect to the saturation of research findings. In other words, eight students per group can provide diverse and sufficient perspectives by means of their answers to research questions (Kumar, 2019; Thomas, 2017).

4.5 Research sampling

In experimental research, randomisation is the key to effective sampling but in this research the small target population limited the randomisation of sample selection of Experimental and Control groups. To mitigate this limitation, random allocation or random assignment was applied through two sampling techniques in an attempt to produce an ideal equivalence between the two groups. Matched pairs design is considered in the following subsection 4.5.1. Simple random sampling is demonstrated in the subsequent subsection 4.5.2.

4.5.1 Matched pairs design

A matched pairs design can be defined as participants being matched for comparison between two groups by *'one member of the control group being matched to member of the experimental group'* in terms of their personal characteristics. Then the participants are randomised into experimental and control groups (Cohen et al., 2018, p. 403). For this research, the matched pairs design was adopted to support equivalence between the two student groups. In other words, the major characteristics of participants between the two groups were homogeneous. However, a limitation can be seen in the matched pairs design with regard to the participants' characteristics. Sarantakos (2013) argued that it was difficult to balance the participants within all their characteristics in order to compare between the two groups. Students may not actually become equally divided in a classroom after considering all their characteristics, so this design met with difficulty in an educational research project. On the other hand, Cohen et al. (2018) suggested that

researchers should limit themselves to just selecting prominent aspects of the participants such as gender, age and ability.

For this research, the matched pairs design was applied to research participants based on just their major characteristics in terms of gender, religious affiliation (Buddhism and Muslim) and domicile (north-eastern, southern and central of Thailand). Although their academic background might be considered as an option to match the participants e.g. grade-point average, this personal information was not allowed to be utilised according to the registration of Capital City University (the Registration Office of Faculty of Education, Capital City University, 2016). As a result, the researcher could not categorise research participants depending on their academic background.

4.5.2 Simple random sampling

In consideration of the representativeness of research data, simple random sampling was applied in the research. Thomas (2017) claims that the use of a simple random sampling technique can reduce a bias between experimental and control groups because all participants have an equal opportunity of being selected by randomisation. Participants in both quantitative and qualitative phases in the research were randomly selected by this sampling technique. In other words, after using the matched pairs design, research participants were randomly divided into Experimental and Control groups in the quantitative phase. With regard to focus group discussion, eight participants of each student group were also chosen by means of randomisation in the qualitative phase.

Cohen et al. (2018) argue that simple random sampling could be challenged with respect to data collection in a fieldwork. For example, it might be difficult to randomise students into experimental and control groups because of time scheduling provided by

a school. Students within the same class might not want to be separated from their classmates. By considering these limitations, the research was conducted within only one Thai literature course. The teaching session within the course was approximately 3 hours per week. This session was divided into two equal parts for Experimental and Control groups. Moreover, the use of both matched pairs design and simple random sampling was informed to research participants with respect to research ethics prior to data collection. Hence, the research could be undertaken within the fieldwork as planned.

4.6 Research instruments

O’leary (2017) states that research instruments can be seen as devices used for collecting research data. Based on the research design in this research, there were four research instruments. The quantitative research instruments consisted of lesson plans, the problem-solving skills test and the attitude questionnaire. The qualitative research instrument consisted of open-ended questions for focus group discussions. These are described in the next subsections below.

4.6.1 Lesson plans

To demonstrate how Experimental and Control groups were taught by following different teaching approaches, namely the SACM and conventional instruction methods, lesson plans were arranged for each teaching session. Based on the research design as the field experiment, the lesson plans between the two groups comprised similar and different aspects. In consideration of the components of lesson plans, they could be displayed in the comparison Table 4.6.1

Table 4.6.1 a comparison of the aspects of components of lesson plans between Experimental and Control groups

Components	Aspects	
	Similarities	Differences
1. Topic	✓	
2. Content	✓	
3. Period of time (approximately 1.5 hours)	✓	
4. Learning outcomes	✓	
5. Objectives		✓
6. Procedure		✓
7. Worksheets		✓
8. Assessment by using a checklist	✓	
9. Materials	✓	

As shown in Table 4.6.1, the lesson plans of both student groups, Experimental and Control, consisted of 9 components. In an attempt at equivalence between the two groups, they had similar characteristics in relation to a learning topic, content, period of time, learning outcomes, assessment and materials. These aspects were designed according to the Thai Qualifications Framework 03 (TQF03), namely, the course specification based on the B.Ed. programme (Thai major) of Capital City University in Thailand. In accordance with the TQF03, both student groups learned the same 6 classic Thai literature titles; Klong Loganit, Savitri, Kaki, Madanabādhā, Lilit Phra Lo and Khun Chang Khun Phaen. The two groups were also assessed according to identical learning outcomes with regard to the problem-solving skills and the application of Thai literature themes and ideas in everyday life situations.

Moreover, 14 lesson plans for each student group were arranged by following the number of teaching sessions. However, three components had different characteristics between the two groups in terms of learning objectives, procedure and worksheets. On account of the aforementioned different teaching approaches between Experimental and Control groups, the learning objectives as a direction provided to learning activities could not be identical for teaching between the two groups. Consequently, the worksheets designed by following the learning objectives and activities had also

different details for both groups with regard to instructions, questions and poems (see the sample of lesson plans in Appendix 2, p. 281).

Although the two student groups were taught by following the 14 lesson plans design, scores resulting from the worksheets attached to the lesson plans were not considered as research data in relation to quantitative data analysis. The scores referring to the progress of student learning during the intervention were not evaluated as research findings to answer research questions. Moreover, the worksheets as planned were not taken by all research participants because of student absenteeism. Missing data can be seen within the scores resulting from the worksheets (see section 4.8). Although the scores were not employed in the process of data analysis, they were given as feedback to participants a week after the completion of each teaching session.

4.6.2 A Problem-Solving Skills test

The problem-solving skills test was designed by following the fundamental concept of problem-solving created by Robertson (2017). This concept consists of four key elements: identifying problems, analysing problems, creating solutions, and selecting and assessing a solution. The study of Thai literature and its ideas represented an ideal subject for the application of the problem-solving skills concept. A test was devised to examine how effective students were in applying Thai literature themes and ideas to solve everyday life situations. The problem-solving skills in question could be measured by using a questionnaire or a multiple-choice test (Abdollahi et al., 2015; Brown and Lee, 2015; Hong and Diamond, 2012). This test was created to investigate student opinions rather than to determine correct and incorrect answers. It was a written test in which students provided their short written answers in relation to problem resolution through the interpretation of Thai literature.

The test comprised the three major sections of instruction, question-answer activities and assessment criteria. The first section consisted of an instruction, poems based on 6 Thai literature titles and a situation for consideration, highlighted for the solution of problems associated with it. The second section had two parts based on the problem resolution process (Brown and Lee, 2015; Robertson, 2017). Within these two parts, students needed to provide short written explanatory answers which were related to the poems and the situation of the first section.

The third section was designed as analytic rubrics with each assessment criterion being examined separately (Brookhart, 2013; Brown and Abeywickrama, 2018). The third section consisted of the three assessment topics of problem-solving skills, the application of Thai literature and writing. 40% of total marks was allocated to each of the two topics about problem resolution from Thai literature, and writing made up the remaining 20%. The total score of thirty marks was 100 per cent. To provide a clear understanding of assessment criteria, the use of rubrics was explained to research participants prior to taking the test.

Brookhart (2013) argues that using rubrics can support student learning by giving feedback in the form of score explanations. On account of an understanding of the feedback provided, students had an academic guideline to improve their learning. On the other hand, the use of rubrics might be challenged because it was often questionably applied to examine '*a student product*' rather than to assess learning outcomes (p.15).

To avoid this limitation, rubrics assessment criteria within the test were related to research questions in terms of learning outcomes referring to the two equal parts of the aforementioned problem resolution and the application of Thai literature topics. The writing topic as an assessment criterion of lesser proportion, gave perhaps

the impression of not being associated with research questions. But, as a matter of fact, the assessment of writing was aimed at investigating common Thai language usage referring to the student understanding of questions provided in the test and their ideas presented through the Thai language (Thongaht, 2013).

With regard to the analytic rubrics, scoring could be time-consuming because the combination of scores depends on each assessment criterion. In the research, the scores combination process appeared prolonged because of the unequal weights of assessment criteria. The process was also manually calculated in pre-test and post-test. On account of this consideration, the scoring plan was arranged prior to data collection. To be well-organised, scores according to each assessment criterion were recorded within a different colour paper. Then, they were combined and copied on to spreadsheets. Specific dates for scoring were pre-scheduled. The test was scored completely within three weeks after data collection.

4.6.3 The Attitude Questionnaire

To obtain student opinions as numerical data with regard to the learning of Thai literature via the SACM and conventional teaching approaches, an attitude questionnaire was designed to reveal attitudes towards their learning and their problems resolution. To measure the attitudes as quantitative research data, three measurement components were considered in relation to student opinions, feelings and inclination to action (Gray, 2018).

In an attempt to address research questions, the questionnaire had two parts and each part comprised nine distinct items. Part one was related to problem-solving skills, part two was associated with learning activities within a Thai literature classroom. Different teaching procedures for each of the two student groups prohibited part two topics from being useful in SACM activities. Otherwise, students in the Control group could have

been disadvantaged through following conventional instruction methods. Hence, the topics within the second part were based on the fundamental concept of learning activities provided in a Thai literature course. Attitude scores measurement was graded by five measurements of attitude agreement, namely, Strongly agree, Agree, Undecided, Disagree and Strongly disagree, according to the Likert scale (Cohen et al., 2018). These five measurements were defined numerically from 5 to 1 respectively. In other words, the Strongly agree represented by 5 was higher than the Agree represented by 4, etc.

In order to check the level of research participants' attention in answering the questionnaire, the design comprised nine positive and nine negative items, all of equal significance. Additionally, the number of questionnaire items was reduced from 30 to 18 because of the limit on time to 20 minutes. If the questionnaire had contained 30 items, participants might not have been able to complete it. They might also have been less interested in answering it (Cohen et al., 2018; Thomas, 2017). Hence, a questionnaire of 18 items was considered to be more suitable for this research.

4.6.4 Questions for focus group discussions

To understand the viewpoints of research participants in relation to problem resolution and the learning of Thai literature, open-ended questions were applied for focus group discussions in this research. Bryman (2016) claims that open-ended questions can identify and justify in-depth data. They can be known as *'free-answer'* questions (Sarantakos, 2013). In other words, the use of open-ended questions can support and encourage participants to express their opinions and feelings independently. Within the study, ten open-ended questions were created in relation to research questions.

Gray (2018) argues that open-ended questions are designed by following the concept of narrowing the general to the specific. There were direct and indirect questions. Sarantakos (2013) points out that the use of direct and indirect questions can provide personal information from respondents as well as their opinions about sensitive and embarrassing issues. For this research, the direct questions were related to personal problem-solving and learning styles in Thai literature courses. The indirect questions were associated with student learning experience of Thai literature with respect to the educational system of Capital City University in Bangkok, Thailand.

Open-ended questions are widely employed in qualitative research but they can be time-consuming in relation to data analysis. Bryman (2016) claims that open-ended questions can provide complex research data which can be seen as the freedom of respondent's opinions. On account of these questions, the process of transcribing and coding research data can often take a long time. Furthermore, open-ended questions can lead to irrelevant data which are not specially connected to research questions (Sarantakos, 2013). Following awareness of these considerations, a data analysis plan was arranged. Qualitative data were coded and categorised in relation to ten open-ended questions. Transcribing and coding were completed within two months as planned.

With the requirement for fairness between the two student groups, biased questions in favour of the SACM were avoided. The SACM is seen as a new teaching approach, but because of the lack of a hypothesis its positive or negative impact on research data cannot be presumed and so it is limited to questions designed to seek general ideas of learning experience and teaching methods. Long questions and jargon were checked to eradicate any possible confusion. Questions were styled in such a way as to have immediate appeal to B.Ed. Thai students.

4.7 Pilot study

Kumar (2014) suggests that research instruments should be piloted to check their validity and reliability prior to data collection (Cohen et al., 2018). The aim of a pilot study is not only to focus on the trustworthiness of research instruments, but also to refine the research process. In other words, results from a pilot study e.g. feedback from experts and participants and/or statistical results are utilised to amend and improve a plan for data collection and analysis (Gray, 2018; O’leary, 2017). The application of the pilot study for this research involved input from three defined groups of people: firstly, experts in research assessment, and then three experts in the teaching of Thai literature and finally students in the B.Ed. programme (Thai major). Details of the input from these groups are as follows:-

In order to examine the accuracy of content based on classic Thai literature, three experts in the teaching of Thai literature were invited to assess and validate the Thai literature used within research instruments in both their English and Thai versions. The experts suggested adjustments to the test and lesson plans which resulted in changes to questions, poems and idioms in worksheets and transliterated words. It was also advised that endnotes of quotations, poetry and idioms in the original English version alone were also needed in a Thai version so that a check could be made between English and Thai translations.

Content validation of research instruments can be quantitatively investigated by means of the index of Item-Objective Congruence (IOC) (Jamnongchob et al., 2017; Sakunpong et al., 2016). Nuanmeesri et al. (2019) explain that the IOC is determined by following the agreement of experts. Although it is generally applied in quantitative research, the IOC is insufficient for providing recommendations in relation to Thai literature when based on mere numerical results. Within this research, suggestions given by the three experts were relevant for refining research instruments without resorting to

use of the IOC; face-to-face discussions between the researcher and the experts were also helpful toward improving the accuracy of research instruments.

To ensure that research instruments were appropriate for data collection, these instruments were piloted in an actual field with eleven voluntary students who were second year B.Ed. students (Thai major) at Capital City University in Thailand, but the results were not to be taken on board as valid data samples. Before piloting, the eleven volunteers were informed about research ethics and guarantees of anonymity, confidentiality and safety. According to the feedback of the eleven students, research instruments in translated Thai were seen as an additionally refined version with respect to the clarification of instructions for the test, the questionnaire and worksheets attached in lesson plans.

Cohen et al. (2018) introduce that quantitative research instruments, e.g. a test and a questionnaire, can be piloted to check their reliability with regard to statistical estimation. Kumar (2014) states that the characteristics of students who participated in a pilot study should be similar to those of research participants in order to represent preliminary data in a fieldwork (O'leary, 2017).

In this regard the eleven volunteer students were not ideal. All of them were Buddhist females with limited domicile, whereas a statistically minimum representative number of thirty volunteers with varied characteristics would have been more ideal (Cohen et al., 2018; Gray, 2018). In view of this pilot study limitation, piloting was not subjected to statistical analysis for the purpose of verifying the reliability of research instruments. Nevertheless, feedback from the three defined groups of people was helpful in amending and validating research instruments in addition to improving the data collection plan.

4.8 Data collection

The data collection carried out from 4th July until 4th October 2017 (14 weeks) was based on the first academic semester of Capital City University in Bangkok, Thailand. Research participants were invited to participate in the research in the early period of registration (19th - 30th June 2017). Unfortunately, only 8 B.Ed. students were able to be voluntary participants, hence, Dr. Kate (pseudonym) who was a senior lecturer in the Faculty of Education, Capital City University, allowed the researcher to undertake the research within the course conducted by her.

An instructional session was approximately 3 hours per week. This session was divided into two equal parts for Experimental and Control groups. The course was attended by 72 students all of whom were voluntary participants. They were randomly divided into the two groups. Lesson plans were also divided between the two groups. The Experimental group was taught 14 lesson plans designed in accordance with the SACM while the Control group was also taught 14 lessons but designed to follow conventional instruction methods. In order to ensure that the Control group was not academically disadvantaged in comparison with the Experimental group, both groups had identical learning outcomes for each lesson. The two groups used content based on 6 classic Thai literary texts (see section 4.6.1).

In the quantitative phase, these two student groups were tested by means of the problem-solving skills test (50 minutes) and the attitude questionnaire (20 minutes). They were tested again after 14 weeks. The data from the two groups were analysed by using the Statistical Package for the Social Sciences (SPSS) software programme. Additionally, the qualitative phase consisted of focus group discussions using open-ended questions about the learning of Thai literature and problem-solving skills. Eight students of each group (total 16 students) were interviewed after conducting the test and the questionnaire in the quantitative phase. The research was conducted to

completion within 3 months. It was supported by the Department of Curriculum and Instruction, Faculty of Education, Capital City University in Bangkok, Thailand.

Although all research participants were tested by following the data collection plan, student absenteeism was found during the taking of the Thai literature course. For fourteen teaching sessions, a session per week, three students in the Experimental group and five students in the Control group were absent from the course for some weeks. On account of research ethics, research participants could be absent or withdraw from this research conducted within the Thai literature course any time without having to give a reason. By not attending some teaching sessions, these students had missed opportunities to learn Thai literature as prescribed. As a result, this student absenteeism might have had an effect on their testing scores and opinions in post-test.

4.9 Data analysis procedure

After data collection, quantitative and qualitative data were analysed separately by looking at their particular numerical and conversation data characteristics with a view to answering research questions. Within this section, two subsections of quantitative and qualitative data analysis procedures are given as follows:

4.9.1 Quantitative data analysis procedure

To analyse quantitative research data, scores resulting from the test and the questionnaire were assessed by means of statistical estimation. Both descriptive and inferential statistics were applied to examine the scores in relation to *'fitness for purpose'* (Cohen et al., 2018, p. 725) as an appropriate evaluation of the impact of the SACM on Thai B.Ed. students' problem-solving skills. On account of the descriptive and inferential statistics adopted, the scores were calculated by using the SPSS software programme. For this section, three subsections offer further

clarification. Scales of measurement are explained in 4.9.1.1. Scores assessed by descriptive statistics are demonstrated in 4.9.1.2. The subsection 4.9.1.3 provides scores assessed by inferential statistics.

4.9.1.1 Scales of measurement

Horn (2012) states that the scales of measurement need to be clarified at the initial stage of statistical analysis. Within this research, the results of the problem-solving skills test can be seen in terms of a ratio scale. Cohen et al. (2018) claim that the ratio scale is determined by numerical data in four major aspects, namely, '*classification, order or ranking, equal-interval between each data point and a true zero*' (p. 726). These four major aspects are represented by the scores given in the research test. Scores were tabulated in groups to represent gender, religious affiliation and regional areas of Thailand and ordinal ranking was used to describe high, middle and low level problem resolution. Furthermore, the interval between each subsequent score was considered as equal. For example, the difference between a score of 11 and a score of 12 was the same as the difference between a score of 20 and a score of 21 (Gray, 2018). True zero was seen as absent data. In other words, it could be no score if a participant either did not address the question or did not give a correct answer within the test (Buckler and Walliman, 2016; Sarantakos, 2013). Rubrics offered assessment guidelines to the examiner so that examiner subjectivity could be minimised in the assessment results.

Whilst the results of the attitude questionnaire were recorded within an ordinal scale, Sarantakos (2013) argues that attitude scores could be classified according to research participants' characteristics in terms of gender, religious affiliation and regional areas of Thailand. Scores, according to the Likert scale, were also used to give an attitude rating (Cohen et al., 2018; DeVillis, 2017). The five measurements of agreement were defined numerically from 5 to 1 respectively. In other words, the Strongly agree represented by

5 was higher than the Agree represented by 4, etc. In this manner the different attitudes of participants could be adequately demonstrated.

Salkind (2017) reports that data derived from an attitude questionnaire can be represented on an interval scale because the differences between subsequent numbers from 5 to 1 can be considered as equal (Sarantakos, 2013). The difference in agreement between 5 and 4 was ideally identical to the differences between 2 and 1. But the researcher considered the attitudes in this research to be incorrectly represented by the aforementioned interval scale on account of the fact that the researcher was unable to confirm any subsequent number difference equality (Thomas, 2017). Hence, it might be wrong of the researcher to adopt the theoretical view that subsequent number differences were equal. There is an alternative view that the representation of attitude scores by use of an ordinal scale as defined above is, at the very least, questionable (Gray, 2018).

4.9.1.2 Data analysis by descriptive statistics

The aim of this subsection is to explain and summarise quantitative research data in relation to comparisons between Experimental and Control groups, including before and after the intervention. The view of Salkind (2017) was adopted in this research so that descriptive statistics were employed to analyse the scores with regard to number of frequencies, percentage, mean (average score) and standard deviation. In addition, on account of the selection of a statistical test from a choice between parametric and non-parametric tests, score distributions were tested for normal curvature (Cohen et al., 2018; Reid, 2014). In an attempt to answer research questions, quantitative data were analysed by considering total scores as well as the score details within subsections. Quantitative data have also been presented by means of comparison tables and bar charts.

4.9.1.3 Data analysis by inferential statistics

By looking at the representativeness of quantitative research data, inferential statistics were applied in this research. The scores resulting from the quantitative research instruments were examined through total scores and through details within the scores subsections. After testing for normal distribution, the scores within a few subsections of each research instrument were found not to be normally distributed. To clarify research results in terms of normal and non-normal distributions, the scores were calculated by means of parametric and non-parametric tests (Araban et al., 2017; Celenay and Kaya, 2017; Yousefzadeh et al., 2016).

In most cases, a researcher wishes to have sufficient evidence to reject the null hypothesis in order to substantiate that the data he or she is relying on are significant in support of the research. Such evidence can be supplied through probability tests which are performed on sample data. The probabilities as given by p value form the basis for accepting or rejecting the null hypothesis but the researcher is responsible for choosing a significant probability level that reflects an appropriate degree of risk of drawing a wrong conclusion from the data in question (Brown and Saunders, 2008, p.72; Bryman, 2016). Significance levels, usually denoted by α (alpha), can vary greatly, dependant on the research field in question and the consequent appropriate tolerance level (i.e. confidence level) of an incorrect conclusion (Gray, 2018). In most pedagogical and social sciences research a significance level of 0.05 is considered to be acceptable, reflecting that there is a 5 per cent (or 1 in 20) chance that to conclude that the data supports the research may be incorrect. In other words, there is a confidence level of 95% that the conclusion about the data is correct (Cohen et al., 2018; Sarantakos, 2013, p. 425).

The prior chosen significance level of 0.05 is only offered as a guide and should not be treated in anyway as absolute. This is well demonstrated in Chapter five – Data

Analysis, where probabilities ' p ' resulting from parametric and non-parametric tests of scores from both the Problem-Solving Skills test and the Attitude Questionnaire varied considerably either side of the assumed 0.05 significance level. As can be seen, tests showed some results to be much lower than 0.05, whereas others to be somewhat above 0.05. Those much lower than 0.05 enabled an even greater confidence than 95% for positive data conclusions. Those considerably higher than 0.05 were not necessarily to be rejected as research supporting evidence. Many were to be seen as still supportive but only so at a somewhat lower level of confidence (Horn, 2012). Although not attempted in this research, further statistical support could be sought in order to validate the data of less confidence and thus furnish additional inferential evidence (Andrade, 2019).

Once the data were confirmed as normally distributed, a parametric test was applied for analysis. A T-test was employed to compare arithmetic mean scores between two student groups (Gray, 2018). Based on the research design, the arithmetic means within a group, both pre-test and post-test, were compared by using a pairs samples t-test. Additionally, the arithmetic means between Experimental and Control groups were compared by virtue of an independent samples t-test. The statistical significance level was considered to be $p < 0.05$. With regard to non-parametric tests, the middle scores of ranked data, namely, medians, were investigated but such scores have no relevance to a normal distribution. The median scores within each group in pre-test and post-test were compared by means of the Wilcoxon test. The scores between the two student groups, Experimental and Control, were compared by way of the Mann-Whitney U test (Cohen et al., 2018).

4.9.2 Qualitative data analysis procedure

Qualitative data resulted from a thematic analysis of focus group discussions. Clarke and Braun (2017) claim that a thematic analysis can be defined as an approach to *'identifying, analysing and interpreting patterns of meanings (themes) within data'* (p. 297). This thematic approach to analysis was generally adopted in the qualitative research of this research because of its flexibility to coding and theme development (Castleberry and Nolen, 2018). However, this flexibility could lead to difficulties of data analysis in relation to the identification and the development of themes. Nowell et al. (2017) state that the flexibility of thematic analysis could provoke inconsistency and incoherence of theme development from the qualitative research data. Notwithstanding the aforementioned limitations, thematic analysis has been applied in this research because of its characteristics as a method to categorise research data. Castleberry and Nolen (2018) argue that thematic analysis is able to investigate the different perspectives of research participants.

In order to address research questions within the research, focus group data were examined by virtue of a comparison between the two groups. The data within each group were also evaluated before and after the learning of Thai literature, that is, pre-test and post-test (see section 4.2). Thematic analysis offered an appropriate analytical tool when considering complex focus group data. Other analytical tools were available based on, e.g., grounded theory, content analysis and discourse analysis (Braun and Clarke, 2013; Thomas, 2017), but the accessibility of thematic analysis made it a preferred choice to discover and understand the qualitative data characteristics of this research. Three subsections offer a description of elements of the qualitative data analysis. Data transcription is clarified in 4.9.2.1. The coding process is displayed in 4.9.2.2. The subsection 4.9.2.3 provides for the identification of themes.

4.9.2.1 Data transcription

All audio focus group recordings made by the digital sound recorder were manually transcribed by the researcher himself into the Microsoft Word programme. Based on the familiarity and accessibility of focus group data, the Thai language has been adopted for transcription purposes because of the type of research participants, namely, B.Ed. Thai students. The translation of Thai into English has also been employed in terms of selected quotations to support themes and subthemes (see subsection 4.9.2.3). Braun and Clarke (2013) point out that all focus group recordings should be transcribed to give an exact reflection of the spoken language irrespective of semantics.

In addition, anonymity and confidentiality were assured through data transcription (Cohen et al., 2018; Rivas, 2018). The name of research participants (speakers), people who were mentioned apart from the focus group participants, coursework and educational institution, e.g. a school and a university, were replaced with pseudonyms to protect individual identity. All electronic data have been stored by means of password protection. Only the researcher and the supervisory team have access to the data (see section 4.10).

As respects the Experimental group, transcription method, pre-test and post-test, needed to be consistent in order to provide reliable research results (Flick, 2014). Subsequently, Control group recordings were likewise also transcribed. A transcription process enabling consistency and accuracy was time-consuming. Bazeley (2013) claims that an hour of focus group recording could take eight hours to transcribe. In actual fact, thirty minutes of focus group recording in this research required seven hours of transcription. All focus group transcripts were double-checked for accuracy. There is no doubt this process was time-consuming, but also rewarding in that it provided revealing insight into participant responses within the research (Braun and Clarke, 2013; Robson and McCartan, 2016).

4.9.2.2 The coding process

In terms of qualitative research, coding can be defined as a procedure for identifying characteristics of data based on a piece of text within an interview or focus group transcript (Braun and Clarke, 2013; Cohen et al., 2018). The coding was an essential part of qualitative data analysis because it was a fundamental concept to enable the creation of themes and subthemes (Richards, 2015). Thomas (2017) advises that the process of coding can easily be conducted by means of well-known qualitative software programmes such as NVivo and ATLAS.ti. These software programmes accept major international languages including English, but they do not accept the Thai language. Unfortunately, such limitation prohibited the use of those programmes within this research. The use of either one of the programmes would have necessitated the translation of Thai transcripts into English but that was seen as inappropriate. Thai transcripts translated into English could easily have obscured the imputed meanings behind those transcripts. The labour saving advantages of those programmes made them attractive, but in the interests of reliability there was no alternative to the manual coding of the transcripts.

To further the understanding of answers to research questions, the coding process can be seen as an investigation of explicit focus group content in terms of an inductive (data-driven) analysis (Clarke and Braun, 2017, p. 298). In other words, the focus group data were coded without following any pre-conceived theoretical ideas. The inductive (data-driven) analysis was appropriate for this research in support of the flexibility of thematic analysis.

Following the coding process, two columns were initially set, one on the left and one on the right side of a piece of paper. The left column consisted of transcript texts with lines being numbered for ease of reference. The right column was arranged to contain codes which indicated words and phrases. The transcript texts were investigated

systematically line-by-line (Cohen et al., 2018). Within a text, meaningful phrases and sentences in relation to research questions were highlighted and identified by means of a descriptive code. For instance, line 126 Apicha (pseudonym): I haven't received any feedback after my assignment submission. This sentence was coded as 'the lack of feedback'. This process was employed in all transcripts.

However, lack of appreciation of context could interfere with the coding accuracy. Bryman (2016) claims that the procedure of coding focused on text fragments: the big picture shown through context might be overlooked. Notwithstanding this awareness, all codes were related to research questions as a core concept (Braun and Clarke, 2013). Essential and meaningful focus group data were, in this manner, collected through the process of coding. Additionally, coding inconsistency could occur by an overreliance on the opinions of the researcher himself. Hence, the coding process was double-checked by means of Intra-coder reliability (Nowell et al., 2017). This topic is mentioned within the section of validity and reliability (see section 4.11).

4.9.2.3 The identification of themes

Bryman (2016) claims that a theme can be defined as a relevant core idea which was created depending on categorised codes. A theme can also be seen as a '*central organising concept*' of qualitative data in connection with research questions (Braun and Clarke, 2013, p. 224). Within this research, each theme was identified based on a group of codes. In order to create themes, descriptive codes in section 4.9.2.2 were categorised through repetitions and constant comparison of their major characteristics. The research design is a comparison between two student groups, providing four transcripts for the identification of codes, taking into account repetitions.

Robson and McCartan (2016) claim that the repetitions can be defined as the frequency of corresponding ideas based on codes. The simplicity of this method was appealing but

its superficiality could adversely affect the construction of an appropriate theme. Braun and Clarke (2013) offer that qualitative analysis should go beyond the consideration of repetitive data. In other words, meaningful key ideas behind data recurrence should also be considered. In order to develop key ideas, the codes were also compared by means of cross-tabulation in relation to their similar and different meanings - a constant comparative method (Rivas, 2018). Denscombe (2017) claims that this method was appropriate for qualitative analysis with respect to grounded theory, but it could also be employed generally in qualitative research. Thomas (2017) argues that the constant comparative method could be applied to all qualitative analysis approaches because it was able to investigate each element level of data such as sentence and paragraph. Within this research, the codes were diverse and numerous. Summarising and categorising by use of the codes was possible in the context of a constant comparative method application to readily enable the identification of themes.

Based on a group of codes, there were fourteen tentative themes in relation to research questions. For ease of understanding, all tentative themes were named using words and short phrases in the Thai language. However, the fourteen themes seemed to overlap with respect to their concept. Creswell and Guetterman (2019) explained that such a drawback could occur because relevant ideas resulting from codes did not fit within a specific theme. The fourteen themes also looked to be too many and general for the answering of the research questions. Hence, in the interest of clarity the fourteen tentative themes were reduced in number. Robson and McCartan (2016) advised that entire data should be re-examined to develop a theme as a distinct core concept. In this research, the fourteen themes were reviewed through all transcripts and codes to see if there was any interconnection between themes (Thomas, 2017). After this process, the fourteen themes were reduced to four main ones within the overall context of problem resolution, learning about Thai literature, learning activities and teacher education within the Academic Marketplace educational policy.

Each of the four themes consists of 3-4 subthemes which display supportive ideas in relation to research questions but Braun and Clarke (2013) stated that a theme had not to comprise subthemes. In other words, if a theme is sufficiently distinct and meaningful as a core concept to address research questions, any subtheme will not be required. However, subthemes might be relevant in the clarification of complicated data (Richards, 2015; Thomas, 2017). In this research, subthemes were provided depending on specific views within focus group data. The subthemes demonstrate the relationship of key ideas within each theme (Creswell and Guetterman, 2019).

In addition, quotations are given as evidence to support a theme. Within this research, the use of quotations might be considered as limited following the translation of Thai into English. Bazeley (2013) points out that the translation of quotations between two languages, namely two cultures, needs to be approved by a translator. If parts of a transcript are translated into a different language by a researcher who lacks translation expertise, meanings of quotations could be misunderstood and misinterpreted (Dhillon and Thomas, 2018; Santos et al., 2015). For the research, quotations were selected to support themes and subthemes, but they were translated by none other than the researcher himself. Possible translation problems have been given consideration in this research. An emeritus lecturer in Thailand, who is an expert in the teaching of English as a foreign language, was invited to double-check the validation of quotations between Thai and translated English versions. The translated quotations are presented in Appendix 8, p. 352.

As a final analysis, using tables and figures can be advantageous to understand qualitative data (Thomas, 2017). In this research, all themes and subthemes have been presented by means of a comparison table to display general qualitative findings as an overview picture. For theme development, revision of focus group data has been employed through the three aforementioned processes (data transcription, coding and

the identification of themes) in relation to research questions and literature review topics (Braun and Clarke, 2013; Robson and McCartan, 2016).

4.10 Ethical considerations

In order to respect people who were involved with this research, research ethics have been considered throughout the research process (British Educational Research Association, 2018; Thomas, 2017). Initially, research ethics were approved by the College Research Ethics Committee (CREC) of Nottingham Trent University (NTU) prior to the pilot study and data collection. Although ethical approval was not required by Capital City University, the confirmation of CREC (inclusive of NTU Doctoral School letters) was formally sent to both the Dean of the Faculty of Education and the President of Capital City University (see Appendix 1, p. 278). Kumar (2019) claims that research ethics should be considered in relation to stakeholders, namely, people who participate in a research project. Within this section, three subsections are discussed with regard to research participants, the researcher, gatekeepers and sponsor.

4.10.1 Research ethics and research participants

To protect the privacy of research participants, namely the B.Ed. students who took part in the pilot study and data collection, informed consent was considered. Cohen et al. (2018) state that informed consent can be defined as the rights of research participants *'to choose whether or not to participate in the research'* (p.122). Kumar (2019) claims that informed consent demonstrates three criteria, namely, the legal and mental competency of research participants to give their permission, the adequacy of information and reasons to take part in the research, and the invitation to be entirely voluntary. In accordance with the British Educational Research Association (2018) and the requirement of CREC, a participant information sheet and a consent form were

provided to research participants before the starting of the pilot study and the data collection (see Appendix 6, p. 345).

Within the participant information sheet, the research aim, data collection process and the period of data collection were indicated. Students' rights in relation to their participation and withdrawal from the research without having to give a reason were also clearly stated. Anonymity and confidentiality were also guaranteed. Additionally, the completed consent form needed to confirm that a student was over eighteen years of age as well as give the researcher permission to audio-record and take notes. Students' rights, anonymity and confidentiality were also confirmed within the form. The research participant and the researcher himself gave their signatures on two consent forms, each form being written in both the English and Thai languages. One copy was kept by the individual research participant and the other one by the researcher himself.

With regard to the protection of privacy, all research data were anonymised. Thomas (2017) suggests that research data can be replaced by means of code numbers or pseudonyms in order to protect an individual identity. Within this research, the use of code numbers tended to give a sense of confusion to the qualitative data analysis and the combination of quantitative and qualitative findings. Hence, pseudonyms have been adopted in place of code numbers for the protection of research data (Cohen et al., 2018). In order to prevent any possible adverse effect of a lack of privacy on their B.Ed. studies, pseudonyms were substituted for students' names and IDs. All people, coursework and educational institutions, e.g. a school or university, mentioned in connection with research participants, were subjected to the use of pseudonyms. Within the research, pseudonyms have been employed in the research process for data collection, data analysis, citations and references. This topic is discussed later.

In accordance with the British Educational Research Association (2018) and Data Protection Act (2018), confidentiality was assured in the research. All electronic data, namely, scores resulting from the test and the questionnaire, audio focus group recordings and transcripts, were stored by means of password protection. Passwords were changed every twelve weeks. Moreover, hard copies of data e.g. the test, the questionnaire, notes taken from focus group discussions, lesson plans and student worksheets, were all kept in a personal cabinet accessed only by the researcher's code number. Only the researcher and his supervisory team have had access to the data. In support of confidentiality, ten years after the end of the B.Ed. programme based at Capital City University, all participant information will be completely destroyed (Thomas, 2017).

Although all research data were kept anonymously and safely, confidentiality among research participants especially during focus group discussions in the qualitative phase was also paramount. Brooks et al. (2014) claimed that participants, namely group members, knew each other well through discussions and consequently knew what others had said. Information from their focus group discussions could be leaked to any group member. To have them be aware of this issue, before and after conducting all focus group discussions, research participants were informed with regard to confidentiality between them (Braun and Clarke, 2013). In other words, any expressions and opinions given within focus group discussions could not be shared with others outside the group.

4.10.2 Research ethics and the researcher

Based on research design as a field experiment (see section 4.2.1), research ethics were considered in relation to fairness between experimental and control groups. Creswell and Guetterman (2019) argued that students in a control group probably lacked the opportunity to take advantage of an improvement provided by a researcher. In other words, a control group member does not receive '*the beneficial treatment*' of

an experimental group member (p. 324). For this research, the Control group was taught by following conventional teaching methods. This research design disadvantaged students within the Control group because they did not have an opportunity to discuss and debate in accordance with SACM prescribed activities, whereas the Experimental group was taught by following the SACM. According to the British Educational Research Association (2018), after the end of an experiment, a control group should be given the opportunity to experience the beneficial treatment given to the experimental group during research (Brooks et al., 2014; Creswell and Guetterman, 2019). In other words, after the completion of data collection within this research, the Control group should have an opportunity to learn about Thai literature following SACM activities.

However, this suggestion seemed limited in practice. Due to the researcher as a PhD student, after the end of the data collection process the researcher went back to the UK to continue studying a PhD programme. Thus, there was no further teaching opportunity provided to the Control group. The end of the academic semester at Capital City University occurred immediately after data collection. There were no further classes for B.Ed. undergraduate students. Hence, it was not possible for the Control group to be taught the SACM provided by the researcher. Nevertheless, in an attempt to solve this limitation, students from the Control group were invited to attend a training course provided by the Department of Curriculum and Instruction, Faculty of Education, Capital City University. The course was arranged in the next academic semester for four sessions, one session per week. During the course students did not learn about Thai literature but they did experience being taught through SACM activities.

The researcher's position as a Thai language lecturer in the Faculty of Education at Capital City University (see section 1.3) could have had an effect on the decision of students to participate and even withdraw from the research even though research ethics had been informed through the participant information sheet and the consent form.

Cleaver et al. (2018) claimed that students as research participants might find it difficult to refuse an invitation to take part as well as to withdraw from a research project if invitation is offered by a researcher who is their lecturer (Brooks et al., 2014).

To ensure the freedom of research participation, any information students supplied was to have no effect whatsoever on their enrolment or grade in any classes. Moreover, the researcher as a lecturer would be away from teaching in Capital City University for four years because of his studying in the UK. Research participants, who were on a second year B.Ed. programme (Thai major), had never met the researcher before data collection. They were also informed that the researcher would return to the UK after the end of data collection. Hence, there was no pressure for research participants to attend or to withdraw from the research.

4.10.3 Gatekeepers and sponsor

A gatekeeper can be defined as a professional who gives permission for access to collect research data based on his or her responsibility at a school, workplace or organisation (Brooks et al., 2014; Robson and McCartan, 2016). For this research, gatekeepers consisted of the President of Capital City University, the Dean of the Faculty of Education, the Head of Department of Curriculum and Instruction and Dr. Kate (pseudonym) who allowed the researcher to undertake the research within a course conducted by her. In accordance with the policy of Capital City University, all lecturers are supported when conducting a research project to improve student learning outcomes (the Office of the President, Capital City University, 2015b). Thus, permission was given for this research to be carried out within a B.Ed. course based in Capital City University.

Robson and McCartan (2016) claim that a gatekeeper can have an influence on research participants in addition to the researcher as a lecturer. However, based on the policy of

Capital City University, the gatekeepers are not allowed to interfere with any part of a research project (the Office of the President, Capital City University, 2015b). In other words, they could not coerce any student to take part in a research project. Therefore, research participants could participate in this research without pressure from any gatekeepers.

Kumar (2019) claimed that the predominant role of a sponsor might have an undesirable influence on a research project. Cleaver et al., (2018) stated that a sponsor might coerce a researcher to follow their requirement with respect to research design and dissemination (Brooks et al., 2014). For this reason, a researcher needs to negotiate with his or her sponsor according to a funded research contract (British Educational Research Association, 2018). This research has been sponsored by Capital City University. Within the associated scholarship contract, there was not any requirement with regard to research methodology and publication. Hence, academic freedom can be seen in this research.

In order to protect the privacy of research participants, the name of Capital City University, as a sponsor, cannot be revealed. Otherwise research participants could experience some possible disadvantage. As a result, the actual name of Capital City University has been withheld and replaced with a pseudonym (British Educational Research Association, 2018; Data Protection Act, 2018). This pseudonym has been employed throughout the research within relevant references to sponsor, citations and to other references.

In brief, research ethics can be seen as an awareness for the security of people who are involved with a study. The rights of these people in relation to privacy, safety, freedom and fairness can be seen as a key concept within this research. Research ethics have

been considered for guiding the research as a field experiment within the research design in a particular university in Thailand.

4.11 Validity and reliability

For the research, the quality of research data was considered in relation to its validity and reliability (Denscombe, 2017). The investigation of the validity and reliability of a research project will depend on the nature of the research (Cohen et al., 2018). The experimental mixed methods design requires different investigation procedures depending on the characteristics of research instruments and data. Within this section, three subsections are described. Validity and reliability of quantitative research data are explained in subsection 4.11.1. Validity and trustworthiness of qualitative research data are demonstrated in subsection 4.11.2. The final subsection in 4.11.3 provides data triangulation in order to assess the integrity of quantitative and qualitative research data.

4.11.1 Validity and reliability of quantitative research data

To examine the validity of quantitative research data, research instruments were investigated in terms of face and content validity prior to data collection. Three experts in the teaching of Thai literature were invited to check the validity of the three research instruments of the problem-solving skills test, the attitude questionnaire, and the 2 lesson plans for Experimental and Control groups. The experts suggested adjustments to the test and lesson plans which resulted in changes to questions, poems and idioms in worksheets and transliterated words. It was advised that endnotes of quotations, poetry and idioms in the original English version alone were also needed in a Thai version so that a check could be made between English and Thai translations and for ease of understanding by the Thai B.Ed. students.

After data collection, scores resulting from the test and the questionnaire were checked by following different procedures but scores resulting from worksheets attached to lesson plans were not considered (see section 4.6.1). With regard to the scores resulting from the test, they were determined by none other than the researcher himself. Hence, the fairness of the scores between the two student groups (Experimental and Control groups) needed to be confirmed. Brookhart (2013) introduced an inter-rater reliability approach to overcome this limitation. Unfortunately, no Thai external examiner was available to give their scores for the test.

With this support unavailable, the scored double-checking procedure was offered to confirm validity and reliability. According to the Office of the Higher Education Commission (2016), this procedure was an educational requirement based on the TQF. Three to five external examiners from similar or different fields were invited to guarantee scoring within the particular problem-solving skills test without they themselves giving scores for the test. This procedure was adopted within the research by means of inviting two Thai literature lecturers and one social studies lecturer from different universities in Thailand to double-check the anonymous scores of the test.

The scores resulting from the attitude questionnaire were assessed for internal consistency. To ensure that individual items in the questionnaire based on the Likert scale corresponded to the same '*dimension or area of interest*', namely problem resolution and the learning of Thai literature, they were statistically estimated by using Cronbach's coefficient alpha (Salkind, 2017, p. 116). This topic is discussed in the chapter of data analysis (see section 5.3).

4.11.2 Validity and trustworthiness of qualitative research data

With regard to the questions for focus group discussions, they were checked for validity by the three experts prior to data collection, as well as for adherence to face and content validity mentioned in subsection 4.11.1. The questions were adjusted to semi-formal Thai register in order to provide clear understanding for the B.Ed. students. Subsequently, after the process of qualitative data analysis, qualitative data were investigated by means of intra-coder reliability and a peer debriefing approach. On account of the time limit on data collection in Capital City University in Bangkok, Thailand, qualitative data could not be double-checked by the respondents, namely the B.Ed. student focus group members. Hence, the intra-coder reliability check was applied in the research.

Castelberry and Nolen (2018) explained in their given example that after the completion of coding in a few days, the same qualitative data were re-coded by the same original researcher to improve the consistency of coding. However, the reliability of this recoding technique was limited because of being conducted by only the researcher himself. To avoid a bias in qualitative data analysis, data were double-checked by means of the peer debriefing approach (Cohen et al., 2018; Nowell et al., 2017). For this research, after the completion of qualitative data analysis, the one lecturer who guaranteed the scores resulting from the test was invited to double-check qualitative data with regard to the coding, identifying of themes and subthemes and using quotations. On account of these two techniques of intra-coder reliability and peer debriefing, the validity and reliability of qualitative data were confirmed.

4.11.3 Data triangulation

Regarding the combination of quantitative and qualitative data, a triangulation technique has been applied in this research to examine validity and reliability, and thus

the trustworthiness of research data (Robson and McCartan, 2016). Creswell and Guetterman (2019) suggested that after analysis, quantitative and qualitative data should be compared or corroborated by considering each element in association with research questions. However, the practical application of data triangulation was limited with regard to a comparison between divergent research data. In other words, research data resulting from different sources cannot be compared or merged with each other. Consequently, the interpretation of possible discrepant research results was challenging (Flick, 2018; Grix, 2019).

For this research, some discrepancies were revealed by comparisons between data collected from different research instruments, namely the test, the questionnaire and open-ended questions for focus group discussions. Although the results were related to research questions, the data collected by each instrument were too distinctive and limited to allow for a straightforward comparison. In accordance with quantitative research data, scores resulting from the test and the questionnaire were able to demonstrate differences between the two student groups, Experimental and Control, in terms of statistical analysis. The scores were difficult to compare with student opinions based on qualitative data resulting from focus group discussions. To overcome this drawback, collecting and analysing additional research results was suggested to explore the broader picture of research data (Creswell and Creswell, 2018).

However, on account of the time limit for data collection at Capital City University in Bangkok, Thailand and the process of data analysis and writing up the thesis, the advice provided for undertaking further data collection and analysis was not adopted in this research.

To resolve the limitation of information on possible research data discrepancies, investigating research data separately was recommended to the researcher. Robson and

McCartan (2016) pointed out that divergent research results can be assessed by means of considering each distinct data source in relation to research questions. Explanations were also required as to why research data were divergent (Plano Clark and Ivankova, 2016). Although this assessment procedure was '*a weak solution*' with regard to the interpretation of data based on triangulation (Creswell and Creswell, 2018, p. 221), it can provide results as supportive evidence to address research questions (Tonkin-Crine et al., 2016).

4.12 Summary

The aim of this chapter was to explain the research methodology adopted in relation to research questions. The chapter demonstrates the particular research as an experimental mixed methods design in order to investigate the SACM and its impact on Thai B.Ed. students' problem-solving skills. Research paradigms were considered and they could be seen as a philosophical guideline for research methodology and methods to collect and analyse research data. With regard to the research design, the three phases of the field experiment, the focus group discussions, and the interpretation of research findings have been discussed. Moreover, prior to data collection the research sampling, research instruments and the pilot study of the research were discussed with research participants. In respect of the privacy and confidentiality of research participants, ethical considerations were also highlighted. The process of data collection has been explained in relation to the teaching of Thai literature in the B.Ed. programme (Thai major) at Capital City University in Thailand. After the completion of data collection, the analysis procedure to examine quantitative and qualitative data was given. Research findings are discussed in the next chapter.

CHAPTER FIVE

DATA ANALYSIS

5.0 Introduction

According to the research design in the methodology chapter, data will be examined in an attempt to answer the research questions. This chapter consists of five sections clarifying the different aspects of the research data. Initially, the fundamental characteristics of research participants in Section 5.1 are described with respect to gender, religious affiliations (Buddhist and Muslim students) and domicile (north-eastern, southern and central Thailand). In Section 5.2, quantitative data which resulted from the problem-solving skills test and the attitude questionnaire are evaluated by means of descriptive and inferential statistics. The internal consistency reliability of the questionnaire is also investigated. In section 5.3, qualitative data resulting from focus group discussions are classified and assessed by thematic analysis. Quotations are given to support the themes and subthemes found in the qualitative data. The final section 5.4 provides the summary of research data.

5.1 Fundamental characteristics of research participants

The participants in this research consisted of 72 B.Ed. students (Thai major) at Capital City University in Bangkok, Thailand. They were volunteers and their class attendance followed the university's schedule. In an attempt to ensure an equivalent comparison between two groups, Experimental and Control, the students were matched with respect to the main aspects of their backgrounds (Cohen et al., 2018). According to the Office of the President, Capital City University (2015a), more than 60 per cent of the students at the university come from the southern and north-eastern regions of Thailand. Furthermore, nearly 40 per cent of the students are Muslim. Hence, the major characteristics of research participants were considered in terms of gender, religious affiliations (Buddhist and Muslim students) and domicile (north-eastern, southern and

central regions of Thailand). After that, the students were divided using a randomised number generator into equal sized Experimental and Control groups, with 36 participants in each group. Swift and Piff (2014) claim that numerical data are more easily understood by means of the presentation of frequency tables: actual numbers are clearer in a table format. Therefore, the fundamental characteristics of the research participants can be demonstrated as shown in the following frequency table.

Table 5.1 Fundamental characteristics of research participants as frequency data

topic	Sub-topic												Total (students)	
Characteristics	Gender	Male						Female						
	Religious affiliation	Buddhist			Muslim			Buddhist			Muslim			
	Domicile (regional area in Thailand)	North-Eastern	Southern	Central	North-Eastern	Southern	Central	North-Eastern	Southern	Central	North-Eastern	Southern		Central
Group	Experimental group	3	3	2	0	5	2	5	5	2	0	5	4	36
	Control group	3	3	2	0	4	3	5	5	2	0	4	5	36
Total (students)		6	6	4	0	9	5	10	10	4	0	9	9	72

As can be seen from Table 5.1, Experimental and Control groups were split into three identical sub-topics taken from the main characteristics of the students. The first aspect was gender consisting of male and female. In general, the number of female students within the two groups (42 students) was higher than the number of male students (30 students). The religious affiliation, as the second feature, also demonstrated that the number of Buddhist students (42 students) was higher than the number of Muslim students (32 students). In the last topic, students' domicile, based on the two groups showed that the number of students, who came from the central region of Thailand, including Bangkok (22 students), was lower than the number of students who came from other regional areas in North-Eastern and Southern Thailand (50 students). In addition, there was no Muslim student from North-Eastern Thailand as a research

participant. Therefore, the number of Muslim students from Central Thailand in the Experimental group (6 students) was slightly lower than the Control group (8 students).

Although the three major characteristics of research participants were categorised in order to make the two student groups equivalent, the other characteristics (dialect, age, academic background in upper secondary education and full-time and part-time jobs) within each student group were quite diverse. These characteristics were discussed during the focus group within the qualitative phase of the research design. However, those diverse features were difficult to classify prior to processing the data collection because there was personal student information that was not officially recorded (the Register of Faculty of Education, Capital City University, 2016). Because of this, those diverse aspects of research participants which are additional to the three major characteristics of gender, religious affiliation and domicile, have limited use in supporting qualitative research data.

5.2 Quantitative data analysis

Within this section, the quantitative data consisting of scores resulting from the test and the questionnaire will be discussed. The data were examined by means of descriptive statistics in relation to mean, standard deviation and testing for normal distributions. The data were also analysed by using inferential statistics with respect to non-parametric tests (Wilcoxon and Mann-Whitney U tests) and parametric tests (Paired and Independent Sample t-tests). Following the research design, pre-test and post-test scores resulting from both research methods were firstly compared within each student group and then again between the different groups of Experimental and Control. Details are presented in the following subsections.

5.2.1 Scores which resulted from the problem-solving skills test

For this subsection, the scores resulting from the problem-solving skills test are analysed and demonstrated within the following four topics.

5.2.1.1 Descriptive statistics: mean and standard deviation

The percentage comparisons of each student group means are illustrated as shown in Figure 5.2.1.1 below.

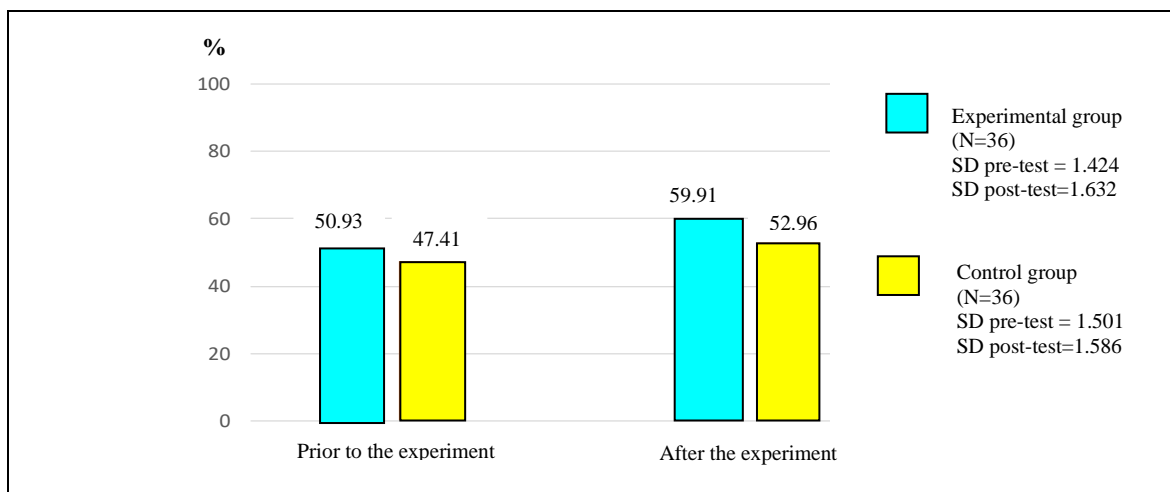


Figure 5.2.1.1 Percentage comparisons of problem-solving skills mean between the Experimental and Control groups, pre and post experiment

As shown in Figure 5.2.1.1, the percentage mean within each student group was higher after the experiment. For the Experimental group, the percentage mean was higher after the experiment by 8.98 percentage points: Whereas, the percentage mean of the Control group was higher after the experiment by 5.55 percentage points. Additionally, the percentage mean of the Experimental group was higher than the Control group score both before and after the experiment, with the mean of the Experimental group being 3.52 percentage points higher than the Control group prior to the experiment at 3.52 per cent and 6.95 percentage points higher than the Control group after the experiment.

The Experimental group showed standard deviations, before and after the experiment, of 1.424 and 1.632 respectively, whereas the Control group showed standard deviations,

before and after the experiment, of 1.501 and 1.586 respectively. The higher the standard deviation, the less indicative or consistent the mean is seen to be, but the mean can be considered as more indicative of results if the standard deviation is lower (Salkind, 2017).

5.2.1.2 Descriptive statistics: testing for normal distribution

The score distributions of both student groups are presented in the following

Table.

Table 5.2.1.2 Testing for normal distribution of the Experimental and Control groups

Group	period	Topic (a maximum total score of 30 points)		Skewness	Kurtosis	Shapiro-Wilk test (Sig.)
		Sub-topic				
Experimental group (N=36)	Prior to the experiment		1. Problem-solving process	0.380	0.087	0.024*
			2. The application of Thai literature in everyday life situations	0.192	0.087	0.016*
			3. Writing	0.477	0.324	0.015*
		Total scores (include all three subsections)		0.340	-0.008	0.324
	After the experiment		1. Problem-solving process	-0.309	-0.263	0.002*
			2. The application of Thai literature in everyday life situations	-0.021	-0.056	0.089
3. Writing			-0.007	-1.316	0.000*	
Total scores (include all three subsections)		-0.315	-0.296	0.018*		
Control group (N=36)	Prior to the experiment		1. Problem-solving process	0.897	0.637	0.001*
			2. The application of Thai literature in everyday life situations	0.529	0.595	0.026*
			3. Writing	0.328	-0.964	0.002*
		Total scores (include all three subsections)		0.642	0.064	0.019*
	After the experiment		1. Problem-solving process	0.278	-0.593	0.067
			2. The application of Thai literature in everyday life situations	0.475	-0.316	0.013*
3. Writing			0.074	-0.784	0.002*	
Total scores (include all three subsections)		0.216	-0.647	0.500		

* $p < 0.050$

Table 5.2.1.2 shows that the Experimental group's total scores were normally distributed prior to the experiment. The significance level (p) at 0.324 was > 0.050 .

Whereas, the Experimental group's total scores were not normally distributed after the experiment. The significance level (p) at 0.018 was < 0.050 . Within the three sub-topics, the Experimental group's scores were not normally distributed prior to the experiment. The significance levels (p) at 0.024, 0.016 and 0.015, respectively, were < 0.050 . The Experimental group's scores in subsections 1 and 3 were not normally distributed after the experiment. The significance levels (p) at 0.002 and 0.000, respectively, were < 0.050 . Meanwhile, the Experimental group's scores in subsection 2 were normally distributed after the experiment. The significance level (p) at 0.089 was > 0.050 .

For the Control group, the total scores were not normally distributed prior to the experiment. The significance level (p) at 0.019 was < 0.050 , whereas the Control group's total scores were normally distributed after the experiment. The significance level (p) at 0.500 was > 0.050 . Within the three sub-topics, the Control group's scores were not normally distributed prior to the experiment. The significance levels (p) at 0.001, 0.026 and 0.002 respectively were < 0.050 . The Control group's scores in subsections 2 and 3 were not normally distributed after the experiment. The significance levels (p) at 0.013 and 0.002, respectively, were < 0.050 . However, the Control group's scores in subsection 1 were normally distributed after the experiment. The significance level (p) at 0.067 was > 0.050 .

For both student groups, scores resulting from the test had normal and non-normal distributions before and after the experiment. As a result, non-parametric and parametric tests were utilised to compare the scores between the Experimental and Control groups. Details are shown in the next two subsections.

5.2.1.3 Inferential statistics: comparisons within each student group

To compare the scores within each student group, statistical tests were deployed to help this research. The comparisons of the results of non-parametric and parametric tests within each student group, both before and after the experiment are demonstrated in the following table.

Table 5.2.1.3 Comparison of the problem-solving skills within each student group, before and after the experiment

Statistical Measure Group	Non-parametric test (Scores tested by means of Wilcoxon test)		Parametric test (Scores tested by means of Paired Sample t-test)		
	Z	Sig	df	t	Sig
Experimental Group (N=36)					
1) Problem-solving process	-4.664	0.000*	35	-8.126	0.000*
2) The application of Thai literature in everyday life situations	-4.517	0.000*	35	-6.882	0.000*
3) Writing	-2.797	0.005*	35	-3.167	0.003*
Total scores (include all three subsections)	-5.039	0.000*	35	-10.717	0.000*
Control Group (N=36)					
1) Problem-solving process	-4.613	0.000*	35	-7.321	0.000*
2) The application of Thai literature in everyday life situations	-2.721	0.007*	35	-2.973	0.005*
3) Writing	-2.624	0.009*	35	-2.918	0.006*
Total scores (include all three subsections)	-5.069	0.000*	35	-7.906	0.000*

* $p < 0.050$

As shown in Table 5.2.1.3, the results of the non-parametric test (Wilcoxon test) show that the Experimental group's median, based on the total score, was higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . Within sub-topics 1, 2 and 3, the Experimental group's median in each sub-topic was higher than prior to the experiment. The significance level (p) at 0.000, 0.000 and 0.005, respectively, was < 0.050 . The results were similar after the calculation using a parametric test (Paired Sample t-test). The Experimental group's mean, based on the total scores, was higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 .

Within the sub-topics 1, 2 and 3, the Experimental group's mean in each sub-topic was higher than prior to the experiment. The significance level (p) at 0.000, 0.000 and 0.003, respectively, was < 0.050 .

For the Control group, the results of non-parametric test (Wilcoxon test) show that the Control group's median, based on the total scores, was higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . Within sub-topics 1, 2 and 3, the Control group's median, of each sub-topic, was higher than prior to the experiment. The significance levels (p) at 0.000, 0.007 and 0.009, respectively, were < 0.050 . The results were similar to this evaluation when using a parametric test (t-test). The Control group's mean, based on the total scores, was higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . Within sub-topics 1, 2 and 3, the Control group's mean of each sub-topic was higher than prior to the experiment. The significance levels (p) at 0.000, 0.005 and 0.006, respectively, were < 0.050 .

5.2.1.4 Inferential statistics: comparisons between the Experimental and Control groups

The comparisons between the two student groups are shown in the following table.

Table 5.2.1.4 Comparison of the problem-solving skills between Experimental and Control groups, before and after the experiment

Statistical Measure Period, N=72	Non-parametric test (Scores tested by means of Mann-Whitney U test)		Parametric test (Scores tested by means of Independent Sample t-test)		
	Z	Sig	df	t	Sig
Prior to the experiment					
1) Problem-solving process	-1.902	0.057	70	1.772	0.081
2) The application of Thai literature in everyday life situations	-0.300	0.764	70	0.170	0.865
3) Writing	-1.327	0.184	70	1.349	0.182
Total scores (include all three subsections)	-1.182	0.237	70	1.171	0.245

* $p < 0.050$

Table 5.2.1.4 Comparisons of the problem-solving skills between Experimental and Control groups, before and after the experiment (cont.)

Statistical Measure Period, N=72	Non-parametric test (Scores tested by means of Mann-Whitney U test)		Parametric test (Scores tested by means of Independent Sample t-test)		
	Z	Sig	df	t	Sig
After the experiment					
1) Problem-solving process	-2.480	0.013*	70	2.490	0.015*
2) The application of Thai literature in everyday life situations	-1.504	0.133	70	1.388	0.169
3) Writing	-1.756	0.079	70	1.912	0.060
Total scores (include all three subsections)	-2.075	0.038*	70	2.203	0.031*

* $p < 0.050$

As can be seen from Table 5.2.1.4, the results of non-parametric test (Mann-Whitney U test) show that there was minimal difference of median, based on the total scores, between the Experimental and Control groups prior to the experiment. The significance level (p) at 0.237 was >0.050 . Within subsections 1, 2 and 3, there was a slight difference of median between the Experimental and Control groups prior to the experiment. The significance levels (p) at 0.057, 0.764 and 0.184, respectively, were > 0.050 . Considering the first sub-section, and comparing the median, it can be seen that it is close to the significance level at 0.050. In other words, the problem-solving process between the two student groups showed little difference prior to the experiment.

With regard to testing by means of a parametric test (an Independent Sample t-test) the results show that there was minimal difference of mean, based on the total scores, between the Experimental and Control groups prior to the experiment. The significance level (p) at 0.245 was > 0.050 . Within subsections 1, 2 and 3, there was a slight difference in mean between the two student groups prior to the experiment. The significance levels (p) at 0.081, 0.865 and 0.182, respectively, were > 0.050 .

After the experiment, the results of the non-parametric test show that the Experimental group's median, based on the total scores, was higher than that of the Control group. The significance level (p) at 0.038 was < 0.050 . Within subsection 1, the Experimental group's median was higher than that of the Control group. The significance level (p) at 0.013 was < 0.050 . However, there was little difference of median within subsections 2 and 3, between the Experimental and Control groups. The significance levels (p) at 0.133 and 0.079, respectively, were > 0.050 .

After the experiment, the results of parametric test show that the Experimental group's mean, based on the total scores, was higher than that of the Control group. The significance level (p) at 0.031 was < 0.050 . Within subsection 1, the Experimental group's mean was higher than that of the Control group. The significance level (p) at 0.015 was < 0.050 . Meanwhile, there was minimal difference of mean in subsections 2 and 3, between the Experimental and Control groups. The significance levels (p) at 0.169 and 0.060, respectively, were > 0.050 .

5.2.2 Scores resulting from the Attitude Questionnaire

For this subsection, the scores which resulted from the questionnaire were calculated and will be discussed in the following four sections.

5.2.2.1 Descriptive statistics: average score and standard deviation

The percentage comparisons of the student groups mean are presented in Figure 5.2.2.1.

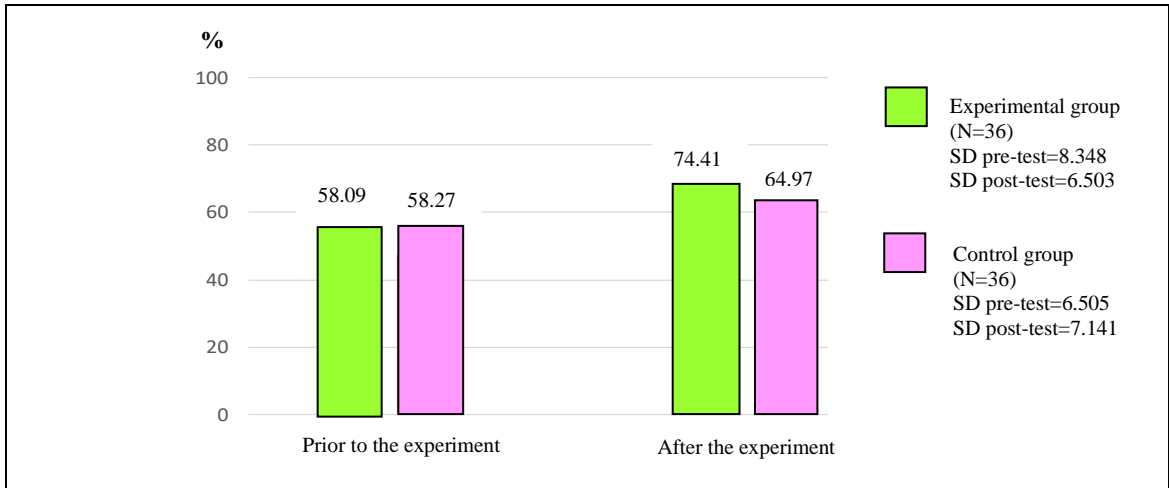


Figure 5.2.2.1 Comparison of the mean of attitudes towards problem resolution and the learning of Thai literature between the Experimental and Control groups, before and after the experiment

As shown in Figure 5.2.2.1, the percentage mean within each student group was higher than prior to the experiment. For the Experimental group, the percentage mean was higher by 16.32 percentage points, after the experiment. The percentage mean of the Control group was higher by 6.7 percentage points after the experiment. Furthermore, the percentage mean of the Experimental group was higher than that of the Control group both before and after the experiment. In other words, the mean of the Experimental group was slightly higher than that of the Control group prior to the experiment at 0.18 percentage points higher. The mean of the Experimental group was 9.44 percentage points higher than that of the Control group after the experiment.

The Experimental group showed standard deviations before and after the experiment of 8.348 and 6.503, respectively. The Control group showed standard deviations before and after the experiment of 6.505 and 7.141, respectively. The mean can be considered as more indicative of results if the standard deviation is small (Salkind, 2017).

5.2.2.2 Descriptive statistics: testing for normal distribution

The distribution of attitude scores was investigated using the total scores, as well as the scores resulting from 18 individual statement items. On account of the data being complicated, they are demonstrated in the following two tables showing the scores of Experimental and Control groups.

Table 5.2.2.2 (1) Distribution of Experimental group's attitude scores

Period	Part	Item	Skewness	Kurtosis	Shapiro-Wilk test (Sig.)
Prior to the experiment	1	Item 01	0.277	-0.794	0.007*
		Item 02	0.126	-0.935	0.009*
		Item 03	0.134	-0.518	0.009*
		Item 04	0.000	-0.367	0.012*
		Item 05	0.126	-0.935	0.009*
		Item 06	0.173	-0.643	0.010*
		Item 07	0.107	-0.694	0.013*
		Item 08	0.000	-0.328	0.008*
		Item 09	0.405	-0.621	0.003*
		Total scores (include 9 items)	0.034	-0.936	0.395
	2	Item 01	0.115	-0.568	0.012*
		Item 02	0.057	-0.686	0.012*
		Item 03	0.000	2.734	0.000*
		Item 04	0.297	-0.745	0.007*
		Item 05	0.126	-0.935	0.009*
		Item 06	0.134	-0.518	0.009*
		Item 07	0.000	-0.110	0.006*
		Item 08	0.441	-0.683	0.002*
		Item 09	0.122	-0.814	0.001*
		Total scores (include 9 items)	0.143	-0.898	0.413
1 and 2	Total scores (include 18 items)	0.104	-1.068	0.121	
After the experiment	1	Item 01	-1.538	1.984	0.000*
		Item 02	-0.776	-0.356	0.000*
		Item 03	-1.160	0.841	0.000*
		Item 04	-1.070	0.624	0.000*
		Item 05	-1.517	1.994	0.000*
		Item 06	-1.227	0.863	0.000*
		Item 07	-0.499	-0.464	0.003*
		Item 08	0.000	0.945	0.000*
		Item 09	-0.519	-0.371	0.003*
		Total scores (include 9 items)	-0.633	0.290	0.103

* $p < 0.05$

Table 5.2.2.2 (1) Distribution of Experimental group's attitude scores (cont.)

Period	Part	Item	Skewness	Kurtosis	Shapiro-Wilk test (Sig.)
After the experiment	2	Item 01	-0.742	-0.327	0.000*
		Item 02	-1.517	1.994	0.000*
		Item 03	-1.139	0.876	0.000*
		Item 04	0.126	-0.935	0.009*
		Item 05	-1.297	1.618	0.000*
		Item 06	0.000	-0.367	0.012*
		Item 07	-1.227	0.863	0.000*
		Item 08	0.115	-0.568	0.012*
		Item 09	-0.642	-0.092	0.001*
	Total scores (include 9 items)	0.263	-0.630	0.539	
	1 and 2	Total scores (include 18 items)	0.099	-0.954	0.456

Table 5.2.2.2 (1) shows that prior to the experiment the Experimental group's total scores resulting from all 18 statement items were normally distributed. The significance level (p) at 0.121 was > 0.050 . The Experimental group's total scores which resulted from parts 1 and 2 were also normally distributed. The significance levels (p) at 0.395 and 0.413, respectively, were > 0.050 . However, the Experimental group's scores resulting from each statement item were not normally distributed. The significance levels (p) of each statement item at 0.007, 0.009, 0.009, 0.012, 0.009, 0.010, 0.013, 0.008, 0.003, 0.012, 0.012, 0.000, 0.007, 0.009, 0.009, 0.006, 0.002 and 0.001, respectively, were all < 0.050 .

After the experiment, the Experimental group's total scores resulting from all 18 statement items were normally distributed. The significance level (p) at 0.456 was > 0.050 . The Experimental group's total scores resulting from parts 1 and 2 were also normally distributed. The significance levels (p) at 0.103 and 0.539, respectively, were > 0.050 . The Experimental group's scores resulting from each statement item were not normally distributed. The significance levels (p) of each question item at 0.000, 0.000, 0.000, 0.000, 0.000, 0.003, 0.000, 0.003, 0.000, 0.000, 0.000, 0.009, 0.000, 0.012, 0.000, 0.012 and 0.001, respectively, were all < 0.050 .

Table 5.2.2.2 (2) Distribution of Control group's attitude scores

Period	Part	Item	Skewness	Kurtosis	Shapiro-Wilk test (Sig.)
Prior to the experiment	1	Item 01	0.000	-1.257	0.002*
		Item 02	0.057	-0.686	0.012*
		Item 03	0.107	-0.694	0.013*
		Item 04	0.235	-0.724	0.009*
		Item 05	0.116	-0.558	0.007*
		Item 06	0.051	-0.805	0.009*
		Item 07	-0.057	0.537	0.001*
		Item 08	0.508	-0.524	0.001*
		Item 09	0.172	-0.083	0.006*
		Total scores (include 9 items)	0.763	0.209	0.076
	2	Item 01	0.000	0.187	0.002*
		Item 02	0.126	-0.935	0.009*
		Item 03	0.122	-0.814	0.011*
		Item 04	0.212	-0.547	0.007*
		Item 05	0.000	-0.367	0.012*
		Item 06	0.126	-0.935	0.009*
		Item 07	0.115	-0.568	0.012*
		Item 08	0.350	-0.385	0.006*
		Item 09	0.115	-0.568	0.012*
		Total scores (include 9 items)	0.305	-0.193	0.717
1 and 2	Total scores (include 18 items)	0.858	0.866	0.075	
After the experiment	1	Item 01	-0.444	-0.860	0.002*
		Item 02	-0.519	-0.371	0.003*
		Item 03	-0.517	-0.603	0.002*
		Item 04	-0.403	-0.589	0.005*
		Item 05	-0.403	-0.804	0.003*
		Item 06	-0.444	-0.860	0.002*
		Item 07	0.115	-0.568	0.012*
		Item 08	-0.115	0.854	0.000*
		Item 09	0.057	-0.686	0.012*
		Total scores (include 9 items)	0.154	0.533	0.640
	2	Item 01	-0.574	-0.620	0.001*
		Item 02	-0.519	-0.371	0.003*
		Item 03	-0.453	-0.797	0.002*
		Item 04	0.000	0.535	0.000*
		Item 05	-0.507	-0.676	0.002*
		Item 06	0.173	-0.643	0.010*
		Item 07	-0.403	-0.589	0.005*
		Item 08	0.070	-0.437	0.011*
		Item 09	0.000	1.273	0.000*
		Total scores (include 9 items)	0.919	0.388	0.007*
1 and 2	Total scores (include 18 items)	0.516	0.571	0.115	

* $p < 0.05$

As shown in Table 5.2.2.2 (2), prior to the experiment the Control group's total scores resulting from all 18 statement items were normally distributed. The significance level (p) at 0.075 was > 0.050 . The Experimental group's total scores resulting from parts 1

and 2 were also normally distributed. The significance levels (p) at 0.076 and 0.717, respectively, were > 0.050 . However, the Control group's scores resulting from each statement item were not normally distributed. The significance levels (p) of each question item at 0.002, 0.012, 0.013, 0.009, 0.007, 0.009, 0.001, 0.001, 0.006, 0.002, 0.009, 0.011, 0.007, 0.012, 0.009, 0.012, 0.006 and 0.012, respectively, were all < 0.050 .

After the experiment, the Control group's total scores resulting from all 18 statement items were normally distributed. The significance level (p) at 0.115 was > 0.050 . The Control group's total scores resulted from part 1 were also normally distributed. The significance level (p) at 0.640 was > 0.050 . However, the Control group's total scores resulting from part 2 were not normally distributed. The significance level (p) at 0.07 was < 0.050 . Within each statement item, the Control group's scores were not normally distributed. The significance levels (p) of each question item at 0.002, 0.003, 0.002, 0.005, 0.003, 0.002, 0.012, 0.000, 0.012, 0.001, 0.003, 0.002, 0.000, 0.002, 0.010, 0.005, 0.011 and 0.000, respectively, were all < 0.050 .

From both student groups, the scores resulting from the questionnaire had normal and none normal distributions both before and after the experiment. As a result, non-parametric and parametric tests were employed to compare the scores between the Experimental and Control groups. Details are shown in the following two subsections.

5.2.2.3 Inferential statistics: comparisons within each student group

To compare the attitude scores within each student group, before and after the experiment, the scores were examined by means of non-parametric and parametric tests. Details are shown in the following two tables regarding the scores resulting from the Experimental and Control groups.

Table 5.2.2.3 (1) Comparisons of the response attitudes towards problem resolution and the learning of Thai literature of the Experimental group, before and after the experiment

Group	Part	Item	Non-parametric test (Scores tested by means of Wilcoxon test)		Parametric test (Scores tested by means of Paired Sample t-test)		
			Z	Sig	df	t	Sig
Experimental group (N=36)	1	Item 01	-3.577	0.000*	35	-4.508	0.000*
		Item 02	-3.772	0.000*	35	-4.941	0.000*
		Item 03	-3.470	0.001*	35	-4.529	0.000*
		Item 04	-3.777	0.000*	35	-4.782	0.000*
		Item 05	-3.682	0.000*	35	-4.478	0.000*
		Item 06	-3.464	0.001*	35	-4.192	0.000*
		Item 07	-1.943	0.052	35	-2.004	0.053
		Item 08	-0.112	0.911	35	0.000	1.000
		Item 09	-2.311	0.021*	35	-2.497	0.017*
		Total scores (include 9 items)	-5.010	0.000*	35	-10.144	0.000*
	2	Item 01	-3.747	0.000*	35	-4.871	0.000*
		Item 02	-3.298	0.001*	35	-3.839	0.000*
		Item 03	-3.629	0.000*	35	-4.597	0.000*
		Item 04	-0.439	0.661	35	-0.513	0.611
		Item 05	-3.740	0.000*	35	-4.568	0.000*
		Item 06	-0.553	0.580	35	-0.564	0.576
		Item 07	-3.249	0.001*	35	-3.934	0.000*
		Item 08	-0.497	0.619	35	-0.213	0.833
		Item 09	-2.567	0.010*	35	-2.582	0.014*
		Total scores (include 9 items)	-4.928	0.000*	35	-8.250	0.000*
1 and 2	Total scores (include 18 items)	-5.084	0.000*	35	-10.811	0.000*	

* $p < 0.050$

As shown in Table 5.2.2.3 (1), the results of the non-parametric test (Wilcoxon test) show that the Experimental group had the response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . Within part 1, the Experimental group had the response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . However, there was a difference in the Experimental group's response attitudes towards problem resolution and the learning of Thai literature, both before and after the experiment in statement items 7 (*I can clearly identify and analyse a problem when I answer a lecturer's question.*) and 8 (*I like to do an assignment which relates to creating a solution*

in everyday life.). The significance levels (p) at 0.052 and 0.911, respectively, were > 0.050 .

Within part 2, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . However, there was minimal difference of the Experimental group's response attitudes towards the problem resolution and the learning of Thai literature median, both before and after the experiment within the statement items 4 (*After debate with my friends and teacher about Thai literature themes and ideas, I can receive new perspectives such as objectives, characters and aesthetic language*), 6 (*When I analyse Thai literature themes and ideas, I will not mention them or avoid being negative.*), and 8 (*During discussion within a Thai literature classroom, I am confused about mixing different ideas to create a possible solution.*). The significance levels (p) at 0.661, 0.580 and 0.0619, respectively, were > 0.050 .

As for the results of the parametric test (Paired Sample t-test), they were similar to those of the non-parametric test. In other words, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . Within part 1, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . There was a slight difference in the Experimental group's response attitudes towards problem resolution and the learning of Thai literature mean, both before and after the experiment in the statement items 7 and 8. The significance levels (p) at 0.053 and 1.000, respectively, were > 0.050 .

In part 2, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . There was minimal difference in the Experimental group's response attitudes towards the problem resolution and the learning of Thai literature mean, both before and after the experiment within statement items 4, 6 and 8. The significance levels (p) at 0.661, 0.576 and 0.833, respectively, were > 0.050 .

Table 5.2.2.3 (2) Comparisons of the response attitudes towards problem resolution and the learning of Thai literature of the Control group, before and after the experiment

Group	Part	Item	Non-parametric test (Scores tested by means of Wilcoxon test)		Parametric test (Scores tested by means of Paired Sample t-test)		
			Z	Sig	df	t	Sig
Control group (N=36)	1	Item 01	-1.477	0.140	35	-1.431	0.161
		Item 02	-1.732	0.083	35	-1.738	0.091
		Item 03	-2.661	0.008*	35	-2.534	0.016*
		Item 04	-2.110	0.035*	35	-2.101	0.043*
		Item 05	-1.991	0.047*	35	-2.183	0.036*
		Item 06	-2.486	0.013*	35	-2.646	0.012*
		Item 07	-0.425	0.671	35	0.329	0.744
		Item 08	-0.418	0.676	35	-0.418	0.672
		Item 09	-0.249	0.803	35	-0.223	0.824
		Total scores (include 9 items)	-3.545	0.000*	35	-3.993	0.000*
	2	Item 01	-2.517	0.012*	35	-2.858	0.007*
		Item 02	-2.647	0.008*	35	-2.943	0.006*
		Item 03	-1.902	0.057	35	-2.069	0.046*
		Item 04	-0.161	0.872	35	-0.120	0.905
		Item 05	-1.723	0.085	35	-1.821	0.077
		Item 06	-0.149	0.882	35	-0.114	0.910
		Item 07	-1.795	0.073	35	-1.776	0.084
		Item 08	-0.252	0.801	35	-0.264	0.793
		Item 09	-0.346	0.729	35	-0.229	0.820
		Total scores (include 9 items)	-3.727	0.000*	35	-4.629	0.000*
1 and 2	Total scores (include 18 items)	-4.136	0.000*	35	-5.347	0.000*	

* $p < 0.050$

As shown in Table 5.2.2.3 (2), the results of the non-parametric test (Wilcoxon test) show that the Control group had a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . Within part 1, the Control

group had a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . However, there was a slight difference in the Experimental group's response attitudes towards problem resolution and the learning of Thai literature, before and after the experiment in statement items 1 (*When I consult my parents about my problem, I can clearly identify the problem.*), 2 (*I feel happy when my parents give me some ideas for analysing a problem.*), 7 (*I can clearly identify and analyse a problem when I answer a lecturer's question*), 8 (*I like to do an assignment which relates to creating a solution in everyday life*) and 9 (*If a lecturer asks me to evaluate the plan for a solution, I prefer to keep silent.*). The significance levels (p) at 0.161, 0.091, 0.744, 0.672 and 0.824, respectively, were > 0.050 .

For part 2, the Control group had a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . However, there was minimal difference in the Control group's response attitudes towards problem resolution and the learning of Thai literature, before and after the experiment in statement items 3 (*If Thai undergraduates have a group assignment, they will discuss this with each other in planning their assignment.*), 4 (*After a debate with my friends and teacher about Thai literature themes and ideas, I can receive new perspectives such as objective, characters and aesthetic language.*), 5 (*Discussion in a small group (3-4 students) makes me enthusiastic to learn about Thai literature.*), 6 (*When I analyse Thai literature themes and ideas, I will not mention them or avoid being negative.*), 7 (*Debate is an ineffective way to solve a problem in everyday life.*), 8 (*During discussion within a Thai literature classroom, I am confused about mixing different ideas to create a possible solution.*) and 9 (*If my friend suggests a solution to me, I will analyse the strength and weakness of their solution.*). The significance levels (p) at 0.057, 0.872, 0.085, 0.882, 0.801 and 0.729, respectively, were > 0.050 .

The results of the parametric test (Paired Sample t-test) were similar to the results of the non-parametric test. In other words, the Control group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . Within part 1, the Control group had the response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . There was minimal difference in the Control group's response attitudes towards problem resolution and the learning of Thai literature, before and after the experiment in statement items 1, 2, 7, 8 and 9. The significance levels (p) at 0.161, 0.091, 0.744, 0.672 and 0.824, respectively, were > 0.050 .

Within part 2, the Control group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than prior to the experiment. The significance level (p) at 0.000 was < 0.050 . However, there was a slight difference in the results between the parametric and non-parametric tests. Although the results from the two tests were similar in statement items 4-9 as regards a slight difference before and after the experiment, statement item 3 assessed by means of the t-test showed that the Control group had a response attitudes towards problem resolution and the learning of Thai literature mean higher than prior to the experiment. The significance level (p) at 0.046 was < 0.050 .

5.2.2.4 Inferential statistics: comparisons between the Experimental and Control groups

As a comparison of the response attitudes towards problem resolution and the learning of Thai literature between the two groups, the scores resulting from the questionnaire are presented in the following two tables.

Table 5.2.2.4 (1) Comparisons of response attitudes towards problem resolution and the learning of Thai literature between the Experimental and Control groups prior to the experiment

Period	Part	Item	Non-parametric test (Scores tested by means of Mann-Whitney U test)		Parametric test (Scores tested by means of Independent Sample t-test)		
			Z	Sig	df	t	Sig
Prior Implementation (N=72)	1	Item 01	-0.513	0.608	70	-0.547	0.586
		Item 02	-0.325	0.745	70	-0.301	0.764
		Item 03	-0.093	0.926	70	-0.108	0.915
		Item 04	-0.897	0.369	70	0.840	0.404
		Item 05	-0.244	0.807	70	-0.209	0.835
		Item 06	-0.547	0.584	70	0.625	0.534
		Item 07	-0.621	0.535	70	-0.571	0.570
		Item 08	-0.815	0.415	70	0.543	0.589
		Item 09	-0.263	0.793	70	-0.207	0.837
		Total scores (include 9 items)	-0.407	0.684	70	0.129	0.898
	2	Item 01	-0.287	0.777	70	-0.223	0.824
		Item 02	-0.325	0.745	70	0.301	0.764
		Item 03	-0.763	0.445	61.156**	0.702	0.485
		Item 04	-0.881	0.370	70	-0.842	0.403
		Item 05	-0.448	0.654	70	-0.408	0.685
		Item 06	-0.052	0.958	70	-0.103	0.918
		Item 07	-0.270	0.787	70	0.221	0.826
		Item 08	-0.070	0.944	70	0.207	0.836
		Item 09	-0.407	0.684	70	-0.414	0.680
		Total scores (include 9 items)	-0.147	0.883	70	-0.159	0.874
1 and 2	Total scores (include 18 items)	-0.068	0.946	70	-0.088	0.930	

* $p < 0.050$

** Equal variances not assumed

As shown in Table 5.2.2.4 (1), the results of the non-parametric test (Mann-Whitney U test) show that there was minimal difference in a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, between the Experimental and Control groups prior to the experiment. The significance level (p) at 0.946 was > 0.050 . Within part 1, there was a slight difference in a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, between the two student groups prior to the experiment. The significance level (p) at 0.684 was > 0.050 . Additionally, there was a minimal difference in a response attitudes towards problem resolution and the learning of Thai literature median in each question item between the two student groups prior to the experiment.

The significance levels (p) at 0.608, 0.745, 0.926, 0.369, 0.807, 0.584, 0.535, 0.415 and 0.793, respectively, were > 0.050 .

Within part 2, there was a slight difference in a response attitudes towards problem resolution and the learning of Thai literature median resulting from the total scores between the Experimental and Control groups prior to the experiment. The significance level (p) at 0.883 was > 0.050 . Moreover, there was a minimal difference in a response attitudes towards problem resolution and the learning of Thai literature median in each statement item between the two student groups prior to the experiment. The significance levels (p) at 0.777, 0.745, 0.445, 0.370, 0.654, 0.958, 0.787, 0.944 and 0.684, respectively, were > 0.050 .

The results of the parametric test (Independent Sample t-test), were similar to the results of non-parametric test. In other words, there was a slight difference in a response attitudes towards problem resolution and the learning of Thai literature mean resulting from the total scores between the Experimental and Control groups prior to the experiment. The significance level (p) at 0.930 was > 0.050 . Within part 1, there was a minimal difference in a response attitudes towards problem resolution and the learning of Thai literature mean resulting from the total scores between the two student groups prior to the experiment. The significance level (p) at 0.898 was > 0.050 . In addition, there was a slight difference in the response attitudes towards problem resolution and the learning of Thai literature mean in each statement item between the two student groups prior to the experiment. The significance levels (p) at 0.586, 0.764, 0.915, 0.404, 0.835, 0.534, 0.570, 0.589 and 0.837, respectively, were > 0.050 .

For part 2, there was little difference in a response attitudes towards problem resolution and the learning of Thai literature mean resulting from the total scores between the Experimental and Control groups prior to the experiment. The significance level (p) at 0.874 was > 0.050 . There was a slight difference in the response attitudes towards problem resolution and the learning of Thai literature mean in each statement item between the two student groups prior to the experiment. The significance levels (p) at 0.824, 0.764, 0.485, 0.403, 0.685, 0.918, 0.826, 0.836 and 0.680, respectively, were > 0.050 .

Table 5.2.2.4 (2) Comparisons of response attitudes towards problem resolution and the learning of Thai literature between the Experimental and Control groups, after the experiment

Period	Part	Item	Non-parametric test (Scores tested by means of Mann-Whitney U test)		Parametric test (Scores tested by means of Independent Sample t-test)		
			Z	Sig	df	t	Sig
After Implementation (N=72)	1	Item 01	-2.434	0.015*	70	2.414	0.018*
		Item 02	-2.374	0.018*	70	2.510	0.014*
		Item 03	-2.161	0.031*	70	2.149	0.035*
		Item 04	-2.910	0.004*	65.213**	3.095	0.003*
		Item 05	-2.477	0.013*	70	2.397	0.019*
		Item 06	-1.915	0.056	70	1.900	0.062
		Item 07	-2.013	0.044*	70	1.944	0.056
		Item 08	-0.210	0.834	70	0.251	0.803
		Item 09	-1.824	0.068	70	1.749	0.085
		Total scores (include 9 items)	-4.645	0.000*	70	5.318	0.000*

* $p < 0.050$

** Equal variances not assumed

Table 5.2.2.4 (2) Comparisons of response attitudes towards problem resolution and the learning of Thai literature between the Experimental and Control groups, after the experiment (cont.)

Period	Part	Item	Non-parametric test (Scores tested by means of Mann-Whitney U test)		Parametric test (Scores tested by means of Independent Sample t-test)		
			Z	Sig	df	t	Sig
After Implementation (N=72)	2	Item 01	-1.780	0.075	65.382**	2.010	0.049*
		Item 02	-2.610	0.009*	70	2.369	0.021*
		Item 03	-2.209	0.027*	70	2.296	0.025*
		Item 04	-0.488	0.626	66.674**	-0.422	0.675
		Item 05	-2.189	0.029*	66.915**	2.280	0.026*
		Item 06	-0.386	0.700	70	0.325	0.746
		Item 07	-2.276	0.023*	70	2.097	0.040*
		Item 08	-0.182	0.856	70	0.221	0.826
		Item 09	-2.419	0.016*	64.650**	2.077	0.042*
	Total scores (include 9 items)	-3.645	0.000*	70	3.661	0.000*	
	1 and 2	Total scores (include 18 items)	-4.668	0.000*	70	5.280	0.000*

* $p < 0.050$

** Equal variances not assumed

As shown in Table 5.2.2.4 (2), the results of the non-parametric test (Mann-Whitney U test) show that the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than the Control group after the experiment. The significance level (p) at 0.000 was < 0.050 . Within part 1, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than the Control group after the experiment. The significance level (p) at 0.000 was < 0.050 . However, there was a slight difference in a response attitudes towards problem resolution and the learning of Thai literature median between the two student groups in statement items 6 (*After listening to friends' suggestions, I will revise my ideas about a problem and plan relevant solution.*), 8 (*I like to do an assignment which relates to creating a solution in everyday life.*) and 9 (*If a lecturer asks me to evaluate the plan for a solution, I will keep silent.*). The significance levels (p) at 0.056, 0.834 and 0.068, respectively, were > 0.050 .

Within part 2, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature median, based on the total scores, higher than the Control group after the experiment. The significance level (p) at 0.000 was < 0.050 . However, there was minimal difference in a response attitudes towards problem resolution and the learning of Thai literature median between the two student groups in statement items 1 (*A debate in a classroom may lead to aggressive behaviour by Thai undergraduates.*), 4 (*After a debate with my friends and teacher about Thai literature themes and ideas, I can receive new perspectives such as objective, characters and aesthetic language.*), 6 (*When I analyse Thai literature themes and ideas, I will not mention them or avoid being negative.*) and 8 (*During discussion within a Thai literature classroom, I am confused about mixing different ideas to create a possible solution*). The significance levels (p) at 0.075, 0.626, 0.700 and 0.856, respectively, were > 0.050 .

The results of the parametric test (Independent Sample t-test) were similar to the results of the non-parametric test. In other words, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than the Control group after the experiment. The significance level (p) at 0.000 was < 0.050 . Within part 1, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than the Control group after the experiment. The significance level (p) at 0.000 was < 0.050 . There was a slight difference in a response attitudes towards problem resolution and the learning of Thai literature mean between the two student groups in statement items 6, 7, 8 and 9. The significance level (p) at 0.062, 0.056, 0.7803 and 0.085, respectively, was > 0.050 . However, in statement item 7, the result evaluated using the non-parametric test was different to that of the analysis by means of the parametric test. In other words, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature median higher

than the Control group after the experiment. The significance level (p) at 0.044 was < 0.050 .

Within part 2, the Experimental group had a response attitudes towards problem resolution and the learning of Thai literature mean, based on the total scores, higher than the Control group after the experiment. The significance level (p) at 0.000 was < 0.050 . There was a slight difference in a response attitudes towards problem resolution and the learning of Thai literature mean between the two student groups within statement items 4, 6 and 8. The significance levels (p) at 0.675, 0.746 and 0.826, respectively, were > 0.050 .

5.2.3 Internal consistency reliability

To investigate the reliability of the attitude questionnaire, the attitude scores were evaluated by means of Cronbach's coefficient alpha. Details are demonstrated in the following table.

Table 5.2.3 Internal consistency reliability of the attitude questionnaire (N=72)

Period	Part	Number of Items	Reliability Statistics (Cronbach's Alpha)
Prior to the experiment	1	9	0.504
	2	9	0.492
	1 and 2	18	0.683
After the experiment	1	9	0.495
	2	9	0.365
	1 and 2	18	0.667

Table 5.2.3 shows that the internal consistency reliability of the two part questionnaire, as a whole prior to the experiment was 0.683. The reliability of the two part questionnaire as a whole after the experiment was 0.667. Although both these scores were lower than the acceptable level of reliability which is generally not less than 0.700 (Cohen et al., 2018), they were, however, very close to the acceptable level.

5.3 Qualitative data analysis

In accordance with the research design, during the qualitative phase the qualitative data that resulted from focus group discussions were investigated by means of a thematic analysis. The data were categorised in terms of themes and subthemes. Details are presented in the following table 5.3.

Table 5.3 Themes and subthemes

Theme	Sub-theme	Subtheme mentioned within	
		Experimental group	Control group
5.3.1 Problem resolution	5.3.1.1 Selecting and evaluating appropriate solutions	✓	-
	5.3.1.2 Advice and decision making	✓	✓
	5.3.1.3 Happiness and task-fulfilment	✓	✓
	5.3.1.4 The vagueness of creating problem-solving ideas	✓	✓
5.3.2 Learning about Thai literature	5.3.2.1 The aim of the study	✓	✓
	5.3.2.2 Instant acquisition: learning about Thai literature via the Internet	✓	✓
	5.3.2.3 The feeling of ‘them and us’ during the reading of Thai literature	✓	✓
	5.3.2.4 The practical application of Thai literature in everyday life situations	-	-
5.3.3 Learning activities	5.3.3.1 Teaching methods offered to Thai undergraduate students	✓	✓
	5.3.3.2 Group-work	✓	✓
	5.3.3.3 Interactions between teacher and student: students’ proactive communication	-	-
5.3.4 Teacher education within the Academic Marketplace educational policy	5.3.4.1 The image of studying on the B.Ed. programme	✓	✓
	5.3.4.2 B.Ed. programme (Thai major) as a second choice	✓	✓
	5.3.4.3 Learning opportunities for B.Ed. students: pedagogy and the educational system	✓	✓

As exhibited in Table 5.3, four themes are based on focus group data. Each theme also consists of 3-4 subthemes following a comparison between the Experimental and Control groups, including before and after the experiment. In general, ideas within the four themes link with students’ academic experience in upper secondary education and during their study on B.Ed. and B.A. courses (Thai major). Prior experience in connection with cultural background is also considered. However, opinions to support

the four themes do not follow from a group consensus neither within the group nor between groups. Supportive opinions are considered according to meaningful and essential codes and student expressions (see section 4.9.2). From an overall perspective, the four themes are deliberated in the following discussion.

5.3.1 Problem resolution

Problem-solving was mentioned by the two student groups, Experimental and Control. It was clarified due to its components and students' enjoyment when completing problem-solving assignments. To explain the theme 'problem resolution' in some detail, the four subthemes are shown in the following sections.

5.3.1.1 Selecting and evaluating appropriate solutions

Students within the Experimental group indicated a process of selecting and evaluating appropriate solutions which led to being more confident in overcoming problems. However, this problem-solving process was not seen during the discussions of the Control group. In the interests of the process of selecting and evaluating appropriate solutions, supportive ideas were given in relation to opportunities for sharing different perspectives within small student groups. Moreover, any solutions offered by each group member were assessed with respect to strengths and weaknesses. Hence, students were confident about being able to complete their conflict resolution assignment. A sample idea was demonstrated by a Buddhist male student from the north-east, who said that:

We were quite clear how to solve a problem because of group discussion throughout the process of selecting and evaluating appropriate solutions. Everyone was able to share his or her opinions, so we considered the strengths and weaknesses within each solution.

(Nikom, pseudonym,
See the original Thai version in Appendix 8, p. 352)

However, the process of selecting and evaluating appropriate solutions encountered problems within group discussion. Every student group member needed to justify his or her opinion. Supporting and/or opposing views were clarified to reach a group consensus. Thus, the process was time-consuming. This idea was mentioned by a Muslim female student from the south, who said that:

I needed to wait to listen to different opinions provided by group members. It was time-consuming to be clear during group discussion and negotiation. If I did not understand their individual perspective, it would be difficult to create our group consensus.

(Pimjai, pseudonym,
See the original Thai version in Appendix 8, p. 352)

Although this problem-solving process was time-consuming during the group discussion stage, most students within the Experimental group were happy to follow this process because they could provide clear justifications to solve a problem during group tasks.

5.3.1.2 Advice and decision making

Both student groups agreed that suggestions were important to support their decision making in connection with problem resolution. However, the two student groups had different ideas regarding people who give advice to students. For students within the Experimental group, suggestions provided by parents and older family members were beneficial when making a decision. Based on their prior experience, those people could suggest an appropriate idea to help overcome a problem. As a consequence, when students wished to consult with someone, they considered asking their parents and/or

older family members rather than friends. A sample idea is presented by a Buddhist female student from the north-east, who stated that:

Suggestions provided by parents were always good because they had encountered problems before me. In other words, they had prior experience that could support my decision... They were the first people who were able to give me advice.

(Wanee, pseudonym,
See the original Thai version in Appendix 8, p. 352)

However, parents and/or older family members were not always the first consultants for students. This idea was present in the Control group's discussion. A few students within the Control group explained that, on account of the distance between them and their parents and family members, such ones would not be able to understand a problem in the context of that being experienced by the students. Moreover, they thought that if parents and/or older family members knew that their children were having difficulties, they might worry about them and that if they did not have a solution to the problem to suggest to their children, the students would feel even more stressed. Hence, they preferred to discuss their problems with friends who had a contextual understanding or had experienced similar problems. This opinion was given by a Muslim female student from the south within the Control group, who claimed that:

Friends were my first consultants to give me suggestions. On account of our friendship, it was easy to discuss with them. If I talked to my parents, they might say 'don't give up', but they were not able to help me find a solution.

(Somsri, pseudonym,
See the original Thai version in Appendix 8, p. 353)

5.3.1.3 Happiness and task-fulfilment

After the experiment, students from both groups mentioned their feelings about happiness and task-fulfilment. There were different views in relation to how they felt when conducting group tasks. Students from the Experimental group pointed out that throughout the process it was desirable for the problem-solving process to provide

happiness or satisfaction among group members. They tried to focus on the process rather than the fulfilment of the task. This sample idea was given by a Buddhist male student from the north-east, who said:

If I always focused on the goal or task-fulfilment, I could not do my work very well because I would be worried about it. In other words, I would be so stressed during the task.

(Somphop, pseudonym,
See the original Thai version in Appendix 8, p. 353)

This idea was different to the opinions given by students from the Control group. They simply said that when a task was completed, or a problem was resolved, group members were happy. A sample idea was given by a Buddhist female student from the central area, who stated that:

I felt worried until the submission deadline or receiving results provided by a teacher. After that, I would be happy.

(Penporn, pseudonym,
See the original Thai version in Appendix 8, p. 353)

5.3.1.4 The vagueness of creating problem-solving ideas

Although both student groups were familiar with problem-solving topics due to their prior experience in upper secondary education and B.Ed. courses, they were sometimes confused when trying to achieve a problem resolution; this was in relation to the definition of a ‘problem’ - applying academic knowledge in everyday life and finding appropriate solutions with respects to Thai culture. The students stated that the differences in the use of the term ‘problem’ needed to be clear between an academic problem and a problem encountered in everyday life. From the students’ perspective, different kinds of problems could lead to the requirement for different solution ideas. Within a B.Ed. class, if students were not sure about identifying a type of problem they would find it difficult to find any solution at all. This sample idea was given by a Buddhist female student from the south in the Experimental group who said:

What kind of a problem was it? If it was not identified clearly, I could not find a suitable solution. In my group task, I was often confused by the term ‘problem’.

(Suda, pseudonym,
See the original Thai version in Appendix 8, p. 353)

Next, students were confused in their application of academic knowledge when solving problems in everyday life. Four students from each of the two groups claimed that they were familiar with solving academic problems in mathematics and science exams when they were upper secondary school students but they were not sure how to adapt this academic knowledge to their everyday lives. Moreover, clear explanations and samples had not yet been given to them. This sample thought was given by a Muslim male student in the Control group from the central area, who said:

I was not sure how academic content, especially in the upper secondary school would be applied to solve problems in everyday life. Imagine that I would like to buy some snacks in a convenience store; would I have to utilise mathematics knowledge such as calculus or logarithms to buy them?

(Chote, pseudonym,
See the original Thai version in Appendix 8, p. 354)

Finally, both student groups stated that creating problem-solving ideas for everyday life was limited in relation to Thai culture. Within the Thai culture context, solution ideas should be based on the appropriateness of ‘time and place’ regarding Thai manners. In other words, students were not certain that their ideas were suitable for a particular case. A few students provided samples of solution ideas about which they were not sure. A sample statement was provided by a Buddhist female student from the north-east, who wondered:

If I forgot to bring a calculator to a mathematics test, would a teacher allow me to use my personal mobile phone instead of the calculator?

(Pittaya, pseudonym,
See the original Thai version in Appendix 8, p. 354)

Another Muslim male student from the south queried:

What about contacting a teacher via mobile phone apps such as WhatsApp, Line, Facebook or Messenger? Sometimes, I would like to ask a few questions about an assignment, but I was not sure whether I should do it? Is my solution acceptable?

(Niti, pseudonym,
See the original Thai version in Appendix 8, p. 354)

These three examples relating to the term ‘problem’, applying academic knowledge in everyday life and considering appropriateness regarding Thai culture, reveal that students were not confident and did not know how to find solutions.

5.3.2 Learning about Thai literature

Within this theme, B.Ed. (Thai major) students’ learning about Thai literature was discussed. The following four subthemes are explained in association with their study aim, their culturally preferred learning techniques, how they felt when reading Thai literature and their application of Thai literature to their everyday life. Details are presented in the following section:

5.3.2.1 The aim of the study

Based on the perspectives of both student groups, the purposes of reading Thai literature were categorised depending on different groups of readers: B.Ed. students, school students and B.A. students. For B.Ed. students, especially those within the Thai major, the aim of study was to prepare for a future career as a schoolteacher of the Thai language and literature. This objective was derived from the requirement for teaching and learning Thai literature according to the Thai Basic Education Core Curriculum. A sample view was given by a Buddhist female student from the north-east who stated:

We were B.Ed. students. The aim of reading Thai literature was to utilise it in the field experience and future career as schoolteachers of a Thai subject. It was quite clear that was the reason we had to read Thai literature.

(Revadee, pseudonym,
See the original Thai version in Appendix 8, p. 354)

The purpose of reading Thai literature was different for school students than it was for B.Ed. Thai major students. Both student groups stated that there were two particular reasons for reading Thai literature: cultural preservation and to develop an appreciation of aesthetic language. Students from both groups pointed out that Thai literature was comparable to cultural heritage, so school students should learn about it. In other words, Thai people should be proud to read Thai literature. On account of the assessment criteria according to the Thai Basic Education Core Curriculum, an appreciation of aesthetic language in Thai literature was a requirement for Thai students. Hence, these two reasons were seen as an appropriate answer to be given to school students. A sample of this idea was presented by a Buddhist female student from the north-east, who stated:

Personally, I think that Thai students read Thai literature because of cultural preservation and the appreciation of aesthetic language, such as figures of speech.

(Wanee, pseudonym,
See the original Thai version in Appendix 8, p. 355)

A comparison of learning objectives between B.Ed. and B.A. programmes (Thai major) based on Thai literature was discussed by students. The study of Thai literature in the B.Ed. programme focused on teaching, whereas the aim of the study for the B.A. programme concentrated on the deep understanding of Thai literature in specific fields such as historical records, ancient oriental languages and prosody. However, students within both groups were unable to address this question: what are appropriate future careers for B.A. students who have studied Thai literature? A sample view was offered by a Muslim female student from the south who said:

I had no idea that Thai literature was beneficial to B.A. students with regard to preparation for their future career ...I only had an answer for B.Ed. students (Thai major).

(Alpha, pseudonym,
See the original Thai version in Appendix 8, p. 355)

5.3.2.2 Instant acquisition: learning about Thai literature via the Internet

The preferred studying method of B.Ed. students within both groups was to watch video clips about Thai literature via the Internet using the websites, YouTube and Facebook. Supporting arguments for this included saving time and money, feeling ‘enthusiastic’ and applying the learning to their teaching. In accordance with the first reason, most students claimed that watching video clips of Thai literature content was easier to understand than reading a hard copy.

Conventionally, reading a hard copy of Thai literature is time-consuming and can take weeks or even months; however, watching videos about Thai literature via the Internet saved time for the students. They were able to summarise themes and main ideas quickly due to the short videos, each of which lasted 15-20 minutes. In addition, the students did not have to purchase Thai literary texts, thus saving money during their study on the B.Ed. programme at Capital City University in Bangkok, Thailand. This sample idea was demonstrated by a Buddhist male student from the south who preferred to watch Thai literature via the Internet:

If I read a hard copy of Thai literature such as Rammakean and Chun Chang Chun Phan, I could spend more than one month trying to understand the theme and main idea. Watching these literature titles via YouTube was much easier and faster than reading through a hard copy.

(Wittayakorn, pseudonym,
See the original Thai version in Appendix 8, p. 355)

Additionally, the second reason was explained by the following ideas of students who felt more enthusiastic about learning to appreciate Thai literature via the Internet rather

than by reading hard copies. A sample of this view was provided by a Muslim female student from the central area, who said:

Within the video clip which comprised Thai literature content, its presentation was very interesting. I was able to focus on the video clip until the presentation was finished. This was very different to my prior experience when I listened to a lecture in a Thai literature classroom.

(Yada, pseudonym,
See the original Thai version in Appendix 8, p. 355)

Regarding the third reason, video clips that consisted of Thai literature content could be utilised as materials for teaching in the field. Four students reported that their teachers had used video clips to teach Thai literature. Most school students were very interested in Thai literature. Thus, four students stated that when they were to be pre-service teachers during their final year of the B.Ed. programme, they would like to follow this teaching example.

However, watching video clips could limit students' learning about Thai literature. The two students within the Experimental group stated that, although this approach was generally adopted in Thai literature classrooms, they easily forgot details and well-known poems. The students advocated that because they were able to watch Thai literature repeatedly, they did not have to remember in detail. The following was suggested by a Muslim female student from the central area who claimed that:

It was great to watch Thai literature via the Internet, but I easily forgot the details. Please do not ask me about the author's name, his or her biography, vocabulary and well-known poems because I have no idea.

(Oradee, pseudonym,
See the original Thai version in Appendix 8, p. 356)

For this subtheme, different viewpoints were given in support of the preferred studying method of looking at Thai literature via the Internet and also the opposing view that

suggests its limitations in relation to the lack of focus on the details of Thai literature and its well-known poems.

5.3.2.3 The feeling of ‘them and us’ during reading Thai literature

The feeling of ‘them and us’ was mentioned within both student groups during the reading of Thai literature. ‘Them’ could refer to the mainstream student group who were Buddhist students from Bangkok and the central region in Thailand, whereas ‘us’ refers to research participants as minority student groups who have religious affiliations (e.g. Buddhism and Muslim) from different regional areas in Thailand. The feeling of ‘them’ and ‘us’ was considered in connection with the limited understanding of content knowledge within Thai literature, the inattention of different cultures and the avoidance of sensitive cultural topics. Most students pointed out that they did not understand Thai literature themes and ideas with respect to religious principles and philosophy (e.g. Buddhism and Hinduism), theology, particular flower plants and folk tales because they had not been taught or discussed these in their classrooms. This idea was given by a Muslim female student from the south, who said that:

I had absolutely no idea what the lecturer was talking about - Buddhist principles and philosophy and tales of gods - in the Thai literature class. I have not studied this in school. Therefore, I just kept quiet in class.

(Pimjai, pseudonym,
See the original Thai version in Appendix 8, p. 356)

The opinion ‘inattention of different cultures’ referred to well-known cultural places in Bangkok, such as the Grand Palace, the Chaophraya River, China town and Buddhist temples. Five students from both groups stated that they knew about most of them from watching television before reading Thai literature but they felt that those places were not important in their everyday lives because the places were very far away from their

birthplace. This sample view was provided by a Buddhist male student from the north-east who said:

When the Chaophraya River was described within Thai literature, I understood it. To be honest, I did know about it, but I did not appreciate it. In contrast, I did appreciate the Khong River in the Nongkai province, which was near my hometown. It was very impressive.

(Chartsak, pseudonym,
See the original Thai version in Appendix 8, p. 356)

Additionally, a few students from both groups claimed that they tried to avoid mentioning topics in Thai literature that were related to restricted foods and animals, erotic scenes, gender diversity, the Thai royal family and the military. Although the students thought that these sensitive topics were acceptable for reading, they did not want to mention them in their particular cultural community, especially families and in school. This view was presented by a Muslim female student from the south, who stated:

Within my family, I knew about these sensitive topics such as avoiding eating any food containing pork and avoiding touching a dog. They were acceptable for reading in Thai literature because of preparations for examinations. However, my parents did not want to mention the topics.

(Somsri, pseudonym,
See the original Thai version in Appendix 8, p. 356)

A Buddhist male student from the north-east also talked about these sensitive topics:

Conventionally, my teachers have not talked about topics such as erotic scenes, homosexuality in Thai literature. There was no explanation. It was peculiar to talk about it in the classrooms.

(Nikom, pseudonym,
See the original Thai version in Appendix 8, p. 357)

Because of the feeling of ‘them and us’ in association with the lack of understanding of content knowledge, the inattention of different cultures and the avoidance of sensitive topics, students believed that they had fewer opportunities to learn about Thai literature depending on their preference regarding their particular local culture. However, they

realised that reading Thai literature was still essential for their study on the B.Ed. programme (Thai major), especially in view of their preparation for field experience.

5.3.2.4 The practical application of Thai literature in everyday life situations

The application of Thai literature in everyday life was discussed by both student groups. The majority of each group said that Thai literature should be considered as moral guidance. It was comparable to the reading of Aesop's fables. The application of Thai literature was also related to Buddhist principles and proverbs. Additionally, in accordance with problem resolution based on their prior experience in secondary school education, the themes and ideas from Thai literature should be applied to solve moral problems. This idea was provided by a Buddhist female student from the central area who said:

When analysing Thai literature themes and ideas, it should be associated with Buddhist principles such as *'when you do a good thing, it will happen to you'*. Readers were able to apply this idea according to the Thai literature title *'Klong Loganit'* to solve moral problems in relation to honesty, helpfulness and forgiveness.

(Penporn, pseudonym,
See the original Thai version in Appendix 8, p. 357)

However, students within the Control group claimed that Thai literature was generally based on difficult vocabulary, classic settings and old traditions. The practical application of Thai literature themes and ideas was more difficult than in contemporary Thai literature, such as novels and short stories. Students found the modern much easier to understand. A sample perspective was given by a Muslim female student from the central area who said:

I had a clear understanding when applying contemporary Thai literature to everyday life situations and problem resolution because I was able to understand the dialogue and settings easily.

(Oradee, pseudonym,
See the original Thai version in Appendix 8, p. 357)

However, apart from the moral guidance, most students were still confused about applying Thai literature to everyday life situations in relation to psychology, politics and science. According to the students, these topics have not been discussed within a Thai literature classroom.

5.3.3 Learning activities

This theme focuses on learning activities and student participation in the Thai literature classroom. The following three subthemes were demonstrated in relation to teaching methods employed and the group-work and interactions between teacher and students. Details are discussed in the following section.

5.3.3.1 Teaching methods used with Thai undergraduate students

For this subtheme, there were the three teaching methods of lecture, discussion and debate, as understood by the students. During a lecture, an explanation of Thai literature was presented by a lecturer who sat on a chair. The lecturer explained a lesson topic from a textbook or via PowerPoint slides. After a presentation given by students, the lecturer asked the students questions about it with a view to ascertaining their understanding of the topic in question. The debate took the form of an argument within a small group of close classmates.

After the experiment, students in the Experimental group had by then expanded their understanding of teaching methods with respect to discussion and debate activities. The term ‘discussion’ was considered in relation to sharing diverse opinions and supportive reasons with classmates. In other words, students were able to address a question and ask for different views from audiences to create solutions or a group consensus of opinions about the discussion topic. This idea was discussed by a Buddhist female student from the south, who said that:

Discussion should refer to sharing opinions with each other. Although we could have different perspectives, we should finally be able to provide possible solutions or a group consensus.

(Suda, pseudonym,
See the original Thai version in Appendix 8, p. 357)

Additionally, the term ‘debate’ was clarified as presenting contrasting viewpoints to promote a clear understanding of the debate topic rather than trying to defeat opposing views. Students had opportunities to learn how to be good listeners as well as how to approach conflict resolution. This idea was suggested by a Buddhist male student in the Experimental group from the north-east, who mentioned that:

Rather than focusing on a winner or a loser, we needed to consider whether we had clear justification. Has our small group (as one team) addressed the question or discussion topic?

(Somphop, pseudonym,
See the original Thai version in Appendix 8, p. 358)

5.3.3.2 Group-work

Group-work was considered in relation to the interdependency within small student groups and a comparison between the groups’ preferences and those from teacher-organised mixed student groups. Within small student groups, there were different group-work learning styles. Students from the Experimental group mentioned that group members helped each other through group tasks until completion. Meanwhile, Control group members focused only on their individual responsibility based on an assigned sub-group task. After task completion, a double-checking step was conducted by both groups. This sample view was provided by a Muslim female student in the Experimental group from the central area who stated that:

I was willing to help my friends. We helped each other to complete the group task. If the group achieved, we would all achieve.

(Yada, pseudonym,
See the original Thai version in Appendix 8, p. 358)

In a comparison between the groups' preferences and those of the mixed groups organised by the teacher, students within both the experimental and control groups agreed that the group task was quickly and easily achieved according to the group preference. This was supported by the friendship and familiarity among group members, their individual responsibilities and the conveniently conducted management within the group.

However, the mixed group, which consisted of group members' different characteristics e.g. gender, dialect, ethnicity and religious affiliations was time-consuming to complete a group assignment because group members needed to gain familiarity with each other. However, learning within a group that had different individual personal views allowed diverse perspectives when creating a group task. Additionally, students had opportunities to meet new friends who had different academic and cultural backgrounds. This idea was offered by a Buddhist male student from the north-east who said:

I met my friends in a few classes last semester, but we did not talk to each other. When we did a group task together, they were very nice and helpful.

(Somphop, pseudonym,
See the original Thai version in Appendix 8, p. 358)

Both experimental and control groups thought group-work was important for students who studied at Capital City University, because it was an opportunity to learn about different cultures.

5.3.3.3 Interactions between teacher and student: students' proactive communication

Both student groups indicated that they had difficulties with inhibitions based on long-standing cultural perceptions about inappropriate student/teacher familiarity. This problem also manifested itself in the students' reluctance to give answers to questions due to the fear of being incorrect. Fear about commenting on

a teacher's performance also limited interaction. In relation to the fear of being incorrect, students stated that teachers were knowledgeable and experienced. According to student perceptions, teachers were the experts in their field as well as in their teaching experience. Hence, students did not feel confident enough to address questions. They were also worried that their answer might be incorrect. This sample view was offered by a Buddhist female student from the north-east who stated that:

I believed that teachers were knowledgeable.
I thought that I could not answer their questions
because I had little knowledge. I was also afraid of
being incorrect. Therefore, I only kept silent and
smiling in classrooms.

(Pittaya, pseudonym,
See the original Thai version in Appendix 8, p. 358)

Regarding the fear of teachers' condemnatory comments, six students from both groups agreed on the influence of this in reducing their motivation and confidence. After receiving the teacher's condemnation about limited personal knowledge and skills in relation to the use of the Thai language and literature, those six students did not want to ask any questions. Although they had questions related to the class, they tried to find an answer by themselves rather than receiving advice from a teacher. This sample view was given by a Muslim female student from the south who said:

No, I did not want to ask a teacher any questions.
I was afraid of the teacher's condemnation.
In my opinion, a silent answer was appropriate
at that time.

(Apha, pseudonym,
See the original Thai version in Appendix 8, p. 359)

5.3.4 Teacher education within the Academic Marketplace educational policy

Within this theme, both student groups mentioned their application to the B.Ed. programme (Thai major) and the learning experience within the programme as second

year B.Ed. students. To clarify this theme, three subthemes are presented in the following subsections.

5.3.4.1 The image of studying on the B.Ed. programme

The B.Ed. programme was conceived and understood in relation to its application to Thai teacher training. Initially, students applied to enrol in the B.Ed. programme that was offered by Capital City University without prior examination. According to students' perceptions, they would study for five years inclusive of a final year of essential field experience. After graduation, they would receive a teacher licence. They would also register to take an examination to be a teacher in a public school. They would benefit from support from the Thai government with respect to their welfare and pension. This view was provided by a Muslim male student from the south who said that:

After graduating on the five-year B.Ed. programme, I expected to receive a teacher licence. I would like to be a schoolteacher. I would get welfare provided to me and my parents. Additionally, after retirement, I would have pension given by the Thai government.

(Niti, pseudonym,
See the original Thai version in Appendix 8, p. 359)

However, five students from both groups were unable to explain the requirements for applying their skills in the teaching field experience. The students could not indicate the fundamental knowledge and skills required for teaching Thai language and literature in school. The idea was discussed by a Buddhist female student from the central area who mentioned that:

I had no idea how I should prepare for applying my skills in teaching field experience. In this time, I have focused on my learning responsibility within this semester. Moreover, I was still unclear about teaching the Thai language and literature in a school. I would probably understand a few years' time.

(Penporn, pseudonym,
See the original Thai version in Appendix 8, p. 359)

5.3.4.2 The B.Ed. programme (Thai major) as a second choice

Four students from both groups mentioned that the B.Ed. programme (Thai major) was not seen as their first choice. With regard to studying on the B.Ed. programme, reasons were given in relation to the expectation of receiving a teacher licence or the limitations of personal financial support and parents' advice. Two students from the Control group stated that they already had a bachelor's degree prior to applying for the B.Ed. programme. The aim of their study was to receive a teacher licence after graduation. Therefore, they feel they would be quite satisfied with a low grade pass (e.g. grade C and D+).

Due to the limitation of personal financial support, one student from the Experimental group stated that he could have applied and passed a university entrance examination provided by another university for a different bachelor's degree course in Engineering, but his financial support was insufficient for the expensive four-year study programme. Hence, the B.Ed. programme at Capital City University was considered to be an alternative. In accordance with parents' advice, students were encouraged to apply for the B.Ed. programme especially in view of the welfare benefits and pension offered to all schoolteachers. This idea was suggested by a Buddhist male student from the north-east who said that:

I passed the entrance exam provided by a university in Bachelor of Engineering. However, I did not have enough money to pay tuition fees and student accommodation. As a result, I changed my mind and decided to study on the B.Ed. programme at Capital City University because I would like to save money for my family.

(Nikom, pseudonym,
See the original Thai version in Appendix 8, p. 360)

In relation to studying the B.Ed. programme (Thai major), the students did not plan to study the Thai major prior to applying for the B.Ed. programme. Due to the students' academic background in the field of mathematics and science in their upper secondary

education, they were not familiar with the deep knowledge associated with Thai language or literature. However, they thought that studying on the Thai major might be easier than other fields such as mathematics, science and English. The students felt that they were native speakers who communicated through the Thai language. Thus, they felt that studying on Thai major would not be too difficult. This view was provided by a Buddhist male student from the north-east who claimed that:

My field of study in the upper secondary education was mathematics and science. I have not learned about the analysis of Thai grammar, Pali-Sanskrit or the history of Thai literature. However, I prefer to study the Thai major because the Thai language is my mother tongue.

(Chartsak, pseudonym,
See the original Thai version in Appendix 8, p. 360)

Students did not have fundamental knowledge of Thai literature in accordance with learning in keeping with the Thai Basic Education Core Curriculum. They were also limited about identifying well-known Thai literature titles.

5.3.4.3 Learning opportunities for B.Ed. students: pedagogy and the educational system

Both student groups mentioned their learning experience in the B.Ed. programme (Thai major) with regard to pedagogy and the educational system of Capital City University in terms of re-enrolment and re-examination. Within B.Ed. classrooms, students claimed that lecturers did not provide a variety of teaching methods. Lectures were generally an integral part of B.Ed. courses. Moreover, there was a lack of assignment feedback and individual tutorials. Students were usually only able to receive grades after a final examination. They had to wait for grades without advice for academic improvement. This view was given by a Buddhist female student from the south who stated that:

I did not receive any feedback after submitting assignments. I only got my grades one month later after the final examination.

(Suda, pseudonym,
See the original Thai version in Appendix 8, p. 360)

Moreover, there was a lack of additional academic activities outside the classroom. This was different from the students' prior experience in secondary education. Students stated that in schools there were more additional academic activities to support student learning such as competitions in Thai language usage and answering questions about Thai literature during Thai language day and the King's birthday anniversary celebrations. At Capital City University, additional academic activities are not arranged for all university students.

Application processes of re-enrolment and re-examination were often promoted by lecturers and staff members who were responsible for student registration. A few students from the Control group claimed that, although these two methods were there as safety options for all undergraduate students, they preferred to receive personal advice to help to support their learning improvement and to pass the exams first time. A sample view was presented by a Muslim male student from the central area who claimed that:

I have understood the process of re-enrolment and re-examination clearly. They were not required for me at this time. Rather, I would like to know how I should prepare to pass the exams this semester.

(Chote, pseudonym,
See the original Thai version in Appendix 8, p. 360)

In brief, the four themes were considered as essential key ideas that emanated from both student groups. The four themes were also related to research questions about problem resolution and learning by means of an application of the SACM on a Thai literature course. However, some subthemes might not be associated with all of the research questions because they were dependent on student subjective opinions. Additionally,

within similar subthemes, different minor perspectives, were found within each student group (resulting from students' academic and cultural backgrounds).

5.4 Summary

This chapter has recovered quantitative and qualitative research results with a view to answering the research questions. Within the quantitative data analysis, numerical research data resulting from the problem-solving skills test and the attitude questionnaire have been presented as an overview of the quantitative data. The results showed that the Experimental group's problem-solving skills and response attitudes towards problem resolution and learning about Thai literature were generally higher than those of the Control group. However, the results were also assessed within subsections and individual statement items which showed that there was little comparative difference in comparison between the two student groups. Qualitative research data resulting from focus group discussions were arranged within four themes manually: problem resolution, learning about Thai literature, learning activities and then teacher education within the Academic Marketplace educational policy. Within the four themes, there were fourteen subthemes which were based on comparisons between the two groups of students. To clarify research results, both quantitative and qualitative research data were interpreted in connection with data triangulation. An interpretation of the data is given in the Discussion chapter.

CHAPTER SIX

DISCUSSION

6.0 Introduction

The research data have been analysed and presented in Chapter 5: Data Analysis, however, it is necessary to provide a clear picture of the research findings in order to answer the research questions. Hence, the research data are here interpreted within this chapter according to Phase 3 of the research design (see section 4.2.3). For this chapter, the quantitative and qualitative research findings are compared by virtue of cross-tabulation tables. Data triangulation is employed as a process to confirm the integrity of the research results. The research data are also considered in connection with topics based on the literature review in Chapters 2 and/or 3. This chapter contains the following three sections. Section 6.1 provides an interpretation of the research findings with respect to research question one which focuses on the internal and external drawback factors affecting the improvement of Thai B.Ed. students' problem-solving skills. Section 6.2 presents an interpretation of the research findings in association with research question two which concentrates on the strengths and weaknesses of SACM with regards to Thai B.Ed. students' problem-solving skills and the learning of Thai literature. The final section 6.3 provides a summary of the chapter.

6.1 Interpretation of the research findings with regards to Research Question One

In order to answer Research Question One: *'Why do Thai B.Ed. students find it difficult to develop the required problem-solving skills?'*, the research data were considered in relation to the factors that have a negative impact on the improvement of Thai B.Ed. students' problem-solving skills. The convergent and divergent research results are shown as a result of comparisons between the quantitative and qualitative research data from the three different research instruments, namely, the problem-solving skills test,

the attitude questionnaire and open-ended questions in focus group discussions. In some situations, the quantitative data were limited in scope in comparison with the qualitative data. On account of this challenge, a separate investigation of the research data was employed as part of the research in order to obtain an explanation for any data discrepancies (see section 4.11.3).

In this section, the research data have been interpreted with regards to internal and external factors. The internal factors are defined as impediments to the development of Thai B.Ed. students' problem-solving skills, based on the research participants' cultural background and prior experience in secondary education and in studying in B.Ed. and B.A. classrooms at Capital City University in Bangkok, Thailand. Additionally, the term external factors refers to difficulties that undermine Thai B.Ed. students' problem-solving skills in relation to pedagogy and the educational system on account of the Academic Marketplace educational policy. In order to clarify these internal and external factors, a comparison is made between the different types of research data, as shown in the following comparison table 6.1.

Table 6.1 The internal and external factors affecting the improvement of Thai B.Ed. students' problem-solving skills

Topic		Quantitative research data		Qualitative data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.1.1 Internal factors	6.1.1.1 The application of academic knowledge to solve everyday life problems	Within the assessment criterion for the application of Thai literature in everyday life situations, the experiment did not give notable evidence of any differences between the two student groups. The significance levels (p) at 0.133 (analysed by the Mann-Whitney U test) and 0.169 (analysed by the Independent Sample t-test) were > 0.050.	Within Part 1 Item 8 ' <i>I like to do an assignment which relates to creating a solution in everyday life situations</i> ', the experiment did not give notable evidence of any differences between the two student groups. The significance levels (p) at 0.834 (analysed by the Mann-Whitney U test) and 0.803 (analysed by the Independent Sample t-test) were > 0.050.	Subtheme 5.3.1.4: The two student groups were confused as to how to apply academic knowledge to solve everyday life issues.
	6.1.1.2 Group preference	The Experimental group had higher total scores in problem-solving skills than the Control group after the experiment. The significance levels (p) at 0.038 (analysed by the Mann-Whitney U test) and 0.031 (analysed by the Independent Sample t-test) were < 0.050.	The Experimental group had higher total scores in response attitudes towards problem resolution and the learning of Thai literature than the Control group after the experiment. The significance levels (p) at 0.000 (analysed by the Mann-Whitney U test) and 0.000 (analysed by the Independent Sample t-test) were < 0.050.	Subtheme 5.3.3.2: Group tasks were quickly and easily achieved by following group preference with regards to the similar characteristics of group members e.g. dialect and religious affiliations (Buddhist and Muslim students) and domicile. However, group preference did not lead to creating diverse perspectives with regards to problem resolution.

* $p < 0.050$

Table 6.1 The internal and external factors affecting the improvement of Thai B.Ed. students' problem-solving skills (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.1.1 Internal factors	6.1.1.3 Boundaries with regards to Thai culture			
	6.1.1.3.1 Respect for adults	-	-	Subthemes 5.3.3.3: The two student groups were reluctant to give answers to questions because of the fear of being incorrect and of receiving condemnatory comments from teacher. The students preferred to find a solution themselves rather than requesting any advice provided by a teacher.
	6.1.1.3.2 The appropriateness of 'time and place'	-	-	Subtheme 5.3.1.4: The two student groups were not certain as to how to create appropriate solutions in relation to 'time and place'. Moreover, communication between teacher and student was limited in respect of the use of the five distinct registers of the Thai language.

* $p < 0.050$

Table 6.1 The internal and external factors affecting the improvement of Thai B.Ed. students' problem-solving skills (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.1.2 External factors	6.1.2.1 The educational system: re-enrolment and re-examination	-	-	Subtheme 5.3.4.3: The two student groups stated that they were not worried about failing an exam because they had opportunities for re-enrolment and re-examination. Additionally, the students were often absent from classes, hence, they were not familiar with completing problem-solving assignments.
	6.1.2.2 Pedagogy	The Experimental group had higher total scores in problem-solving skills than the Control group after the experiment. The significance levels (p) at 0.038 (analysed by the Mann-Whitney U test) and 0.031 (analysed by the Independent Sample t-test) were < 0.050.	In Part 2, ' <i>learning activities within a Thai literature classroom</i> ', the Experimental group had higher response attitudes towards problem resolution and the learning of Thai literature scores than the Control group after the experiment. The significance levels (p) at 0.000 (analysed by the Mann-Whitney U test) and 0.000 (analysed by the Independent Sample t-test) were < 0.050.	Subtheme 5.3.4.3: The two student groups were often taught by following conventional teaching approaches e.g. lectures, question-answer and using a PowerPoint presentation. There was not a variety of learning activities.

* $p < 0.050$

As shown in Table 6.1, the negative factors affecting an improvement in Thai B.Ed. students' problem-solving skills were considered in order to answer research question one. The details are explained and discussed according to the following internal and external factors.

6.1.1 Internal factors

6.1.1.1 The application of academic knowledge to solve everyday life problems

For this section, the supportive evidence was found in the quantitative and qualitative data. The problem-solving scores resulting from the test have shown that there was a slight difference between the two student groups, Experimental and Control, after the experiment. The significance levels (p) at 0.133 (analysed by means of the Mann-Whitney U test) and 0.169 (analysed using the Independent Sample t-test) were > 0.050 . Additionally, the scores resulting from Part 1 Item 8, which focused on response attitudes towards 'creating solutions for everyday life situations' within the questionnaire, demonstrated that there was minimal difference between the two student groups after the experiment. The significance levels (p) at 0.834 (analysed by means of the Mann-Whitney U test) and 0.803 (analysed using the Independence Sample t-test) were > 0.050 .

These quantitative findings can be explained in that, although the two student groups were divided and taught using different teaching approaches - SACM and conventional teaching methods - there was little difference between the two student groups with regards to the application of academic knowledge to solve problems in everyday life.

Within the qualitative research data in Subtheme 5.3.1.4, students from the two groups stated that they were confused when attempting to apply academic knowledge to solve problems in everyday life. An understanding and prior experience of applying problem-solving to overcome academic problems during examinations was familiar to the

students. The following sample was provided by a Muslim male student in the Control group from the central area, who said that:

I can imagine solving mathematics and science problems in the classroom. However, I am not sure, apart from in examinations, how I can apply the academic knowledge outside classroom. I have not received clear explanations from the teachers.

(Chote, pseudonym,
See the original Thai version in Appendix 8, p. 361)

The quantitative and qualitative research results, data demonstrated that experiment resulted in a limited improvement in Thai B.Ed. students' problem-solving skills. This drawback was considered in terms of the interpretation of problem resolution within the Thai educational context. In reviewing the literature, the concept of problem-solving was generally adopted in Thai education with respect to two distinctive ideas: overcoming academic, and overcoming moral issues. Moreover, the term 'everyday life problems' was often interpreted in relation to Buddhist principles and morals (the Office of the Education Council, Ministry of Education, 2019; Uthayaratana et al., 2019). Apart from these two academic and moral views, Thai students were unclear as to how they could apply academic knowledge to solve problems in everyday life.

Additionally, the Thai B.Ed. students' problem-solving skills within this research are based on the ill-structured problems (see section 3.4.2). They are not routine problems and need to be overcome by means of creative ideas (Ramalingam et al., 2017). The creative problem-solving process is difficult and time-consuming (Csapó and Funke, 2017). To improve the ability of problem resolution in relation to the ill-structured problems, students need to be trained to apply academic knowledge to solve everyday life problems (Hesse et al., 2015).

6.1.1.2 Group preference

On account of the different characteristics of undergraduate students at Capital City University in Bangkok, Thailand, it was not surprising to see group preference learning style. Most undergraduate students preferred to participate with their classmates as part of a particular student group whose members had similar characteristics, such as religious affiliation (Buddhist and Muslim students), dialect and domicile. But this studying within a preferred group did not support the development of Thai students' problem-solving skills. In order to clarify this topic, quantitative and qualitative research data were investigated.

Within the quantitative research results, the scores resulting from the test and the questionnaire provided supportive evidence of group preference among students in the Control group, who were taught using conventional teaching methods. For the test, the Experimental group had higher post experiment total scores in problem-solving skills than the Control group. The significance levels (p) at 0.038 (analysed by means of the Mann-Whitney U test) and 0.031 (analysed using the Independent Sample t-test) were < 0.050 .

Moreover, in the questionnaire, the Experimental group had higher post experiment total scores in response attitudes towards problem resolution and the learning of Thai literature (Parts 1 and 2 included) than the Control group. The significance levels (p) at 0.000 (analysed by means of the Mann-Whitney U test) and 0.000 (analysed using the Independent Sample t-test) were < 0.050 .

These numerical findings resulting from the test and the questionnaire highlight the fact that the Experimental group students, who were taught in small groups with students having with different characteristics and following the SACM, were more accomplished than the Control group students who were taught using conventional teaching methods

and did not change their culturally traditional studying style at group preference. In other words, this latter student training technique portended no improvement in problem-solving skills.

The qualitative research findings were obtained from student opinions resulting from the open-ended questions in the focus group discussions. Within Subtheme 5.3.3.2, students stated that although group preference was generally applied to complete group assignments, group members were not be able to demonstrate diverse perspectives regarding problem resolution. This view was demonstrated by a Buddhist male student from the north-east, who said that:

I have been familiar with group preference since I was a school student. I was happy to undertake group assignments with my classmates who came from Nong Kai province, which is my domicile origin. However, we (as group members) sometimes found it difficult to provide a new idea for completing a group task regarding problem resolution.

(Somphop, pseudonym,
See the original Thai version in Appendix 8, p. 361)

The research results are in accordance with the literature review with regards to the academic and cultural backgrounds of the research participants and the traditional Thai student education method. As mentioned in the literature review, the undergraduate students at Capital City University in Bangkok, Thailand were familiar with group preference learning styles because they had different characteristics in terms of age, religious affiliation (Buddhist and Muslim students), dialect and domicile. Subsequently, students preferred to conduct group tasks with their classmates who had similar characteristics because of the familiarity and comport this encountered (the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016).

However, group preference limited their ability to provide diverse perspectives within group discussions. Slavin (2014) claimed that group members often agreed on a majority idea offered by a few group members rather than trying to present opposing viewpoints. Hence, group preference did not support problem-solving activities, which required students to share different views in order to solve a problem. To prevent this drawback, group tasks and activities need to be well-prepared (Long et al., 2011). All student group members should be informed of their particular responsibility and the essence of the individual task (Muijs and Reynolds, 2018; Webb, 2013).

6.1.1.3 Boundaries with regards to Thai culture

The development of Thai B.Ed. students' problem-solving skills was limited in relation to Thai culture. In order to clarify this topic, supportive evidence was found within the qualitative research data, which were obtained from student opinions in focus group discussions. The quantitative research data resulting from the test and the questionnaire did not demonstrate evidence of boundaries regarding Thai culture because this was not part of the assessment criteria within the quantitative research instruments. However, the topic of boundaries in Thai culture is relevant to answer Research Question One. Thus, this topic has been selected and interpreted within this chapter. The sub-topics of respect for adults and of appropriateness of 'time and place' can be used to explain cultural boundaries. These two sub-topics caused difficulties in terms of improving Thai B.Ed. students' problem-solving skills.

6.1.1.3.1 Respect for adults

In Thai culture, children are taught to be obedient and to respect adults, especially parents, older family members and teachers. Although this behaviour can lead to positive relationships between children and adults, it can have a negative impact on Thai students in terms of their fear of addressing a teacher's question. Within Subtheme 5.3.3.3, the two student groups claimed that they were reluctant to give an answer to the

questions provided by a teacher. The reasons that were given for this were a fear of being incorrect and of receiving condemnatory comments from teacher. Students in the two groups preferred to find a solution themselves rather than requesting advice and further information from a teacher. This sample idea was provided by a Muslim female student from the south, who said that:

My answer might be wrong if I replied to a teacher in the class. In my prior experience, after giving the answer, I received condemnatory comments from a teacher. Hence, I just keep silent and have gone back to find answers by myself.

(Apha, pseudonym,
See the original Thai version in Appendix 8, p. 361)

The qualitative research data supported the views discussed in the literature review in that the idea of respect for adults is embedded in Thai society. Conventionally, this concept has been classified as the paramount cultural aspect of Thai culture. Subsequently, if children debated or interrupted in order to ask questions, they would appear impolite and lacking in etiquette (Drennan and Bockern, 2012). Hence, children should answer questions rather than pose them themselves. On account of this traditional idea, when the students wanted to ask a question they were often not confident in requesting information from adults, especially teachers, in order to solve a problem (Gunawan, 2016).

Moreover, prior experience of condemnatory comments from teachers had an influence on student attitudes because students assumed, rightly or wrongly, that they should avoid asking a question and presenting an opposing view to that of the teacher (Slavin, 2014). Due to this student perception, the students lacked opportunities to share different ideas with respect to problem resolution. Thus, students were limited in their ability to improve their problem-solving skills (Dossey, 2017; Taconis, 2013).

To solve this limitation, an understanding of student backgrounds and cultural preference styles is required for teachers in order to develop the good relationship between teacher and student (Ashwin et al., 2015; Sharan, 2014). Additionally, when students are familiar with their teacher, they are more confident to ask questions and share their perspectives with their teacher (Macblain, 2014; Pollard et al., 2019).

6.1.1.3.2 The appropriateness of ‘time and place’

Within Subtheme 5.3.1.4, the qualitative research results showed that the two student groups indicated there exists appropriateness of ‘time and place’ in Thai culture. The two student groups claimed that they were not certain of proposing an appropriate solution within Thai culture. In other words, they wondered how to present a balance between creative thoughts and the appropriateness of ‘time and place’. Additionally, the use of the five distinct registers of the Thai language was a factor in relation to communication between student and teacher.

The students felt that the relationship between student and university lecturer was not comparable to the relationship between student and schoolteacher based on their prior experience in secondary education. Hence, the students were not sure how to speak appropriately to a lecturer in order to communicate or request their advice in order to solve problems. A sample view was provided by a Muslim male student from the south, who said:

To solve an urgent problem in relation to my study, could I contact a lecturer via Facebook or any mobile phone apps? Moreover, if I would like to consult with a university lecturer, but he or she was not in the office, how should I write a message to the lecturer with regard to the use of the appropriate Thai register?

(Niti, pseudonym,
See the original Thai version in Appendix 8, p. 362)

The qualitative research findings link in with the topic of problem resolution and Thai culture discussed in the literature review. In Thai society, the appropriateness of ‘time and place’ is important. However, this cultural idea is traditionally and informally taught by parents and teachers. It was also considered as common sense rather than a rule (Gunawan, 2016; Sinlarat, 2015b). Therefore, the appropriateness of ‘time and place’ is sometimes difficult to teach because it is not found directly within a textbook. To understand this cultural concept, children usually learn by means of observing and revising comments provided by adults. Then, the children become aware and use it appropriately (Fry, 2018).

In accordance with the appropriateness of ‘time and place’, students in the research were not clear as to how to present their creative views regarding problem resolution. Additionally, the use of the five distinct registers of the Thai language was quite difficult when it came to appropriate communication between student and teacher (Changkhanyaun, 2017; Devayasuvan, 2011). These factors limited students’ abilities to develop their problem-solving skills.

6.1.2 External factors

As shown in Table 6.1, the external factors that had negative effects on Thai B.Ed. students’ problem-solving skills comprised the educational system in terms of re-enrolment and re-examination within Capital City University in Bangkok, Thailand and pedagogy in relation to conventional teaching methods. The details are presented in the following sections.

6.1.2.1 The educational system: re-enrolment and re-examination

For this topic, the supportive evidence was based on student opinions resulting from open-ended questions in the focus group discussions. The quantitative research results were not considered to address this topic because the qualitative research instruments,

namely the problem-solving skill test and the attitude questionnaire, did not include assessment criteria with respect to the educational system. However, the supportive evidence based on the qualitative research results is relevant to address Research Question One on the drawbacks of improving Thai B.Ed. students' problem-solving skills. Hence, the qualitative research findings are discussed within this topic.

In accordance with student opinions within Subtheme 5.3.4.3, the educational opportunities provided by Capital City University were advantageous to the B.Ed. students with respect to their opportunities for re-enrolment and re-examination. Due to these educational opportunities, the students claimed that they were not worried about failing examinations. A sample opinion was presented by a Muslim male student from the central area, who claimed that:

The educational system of re-enrolment and re-examination is beneficial because I sometimes missed an exam and was not available to attend B.Ed. classes. Hence, if I failed an exam, I would not be worried too much because I can re-enrol and resit the exam every academic semester.

(Chote, pseudonym,
See the original Thai version in Appendix 8, p. 362)

On account of student perception regarding the opportunities for re-enrolment and re-examination, the students were sometimes absent from B.Ed. classes. The students aimed to pass by completing the minimal assessment criteria. They were not familiar with completing group assignments in relation to problem-solving activities.

These qualitative research results are in line with the findings in the literature review in terms of the aim of students studying in the B.Ed. programme in spite of the fact that the B.Ed. programme consisted of five years of study, which was a long time period for B.Ed. students, they still applied for this study programme because, after graduation, the

students would receive a teacher licence, which is a requirement for every schoolteacher in Thailand (Prachagool et al., 2016; Teachers' Council of Thailand, 2018).

Hence, the expectations of the B.Ed. students were focused on the teacher licence and the consequent employment opportunities. There was no evidence to demonstrate that student objectives and inspiration were associated with an appreciation of learning content and teaching (Sangwaree, 2017). The purpose behind studying was the extrinsic motivation to be a schoolteacher (Thongthew, 2014).

On account of this, B.Ed. students did not realise the importance of classroom attendance and of completing learning activities and assignments (Siribanpitak, 2018). Thus students failed to take advantage of opportunities to obtain academic knowledge and experience, including the development of their problem-solving skills (Cho et al., 2015; Dhillon and Bentley, 2016; the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016).

6.1.2.2 Pedagogy

Within B.Ed. classrooms, the conventional teaching methods offered to the students had a negative impact on the improvement of their problem-solving skills. This evidence was found in the quantitative and qualitative research data. According to the quantitative results, the scores from the test showed that the Experimental group had higher post experiment total scores in problem-solving skills than the Control group. The significance levels (p) at 0.038 (analysed by means of the Mann-Whitney U test) and 0.031 (analysed using the Independent Sample t-test) were < 0.050 .

In addition, the scores within Part 2 '*learning activities within a Thai literature classroom*' of the questionnaire showed that the Experimental group had higher post experiment scores in response attitudes towards problem resolution and the learning of

Thai literature scores than the Control group. The significance levels (p) at 0.000 (analysed by means of the Mann-Whitney U test) and 0.000 (analysed using the Independent Sample t-test) were < 0.050 .

The quantitative research results demonstrated that the Experimental group students who were taught following the SACM had higher scores in problem-solving skills and attitudes towards problem resolution and the learning of Thai literature than the Control group students taught using conventional teaching methods. In other words, conventional teaching methods do not clearly show any support for an improvement in B.Ed. students' problem-solving skills.

Interpretation based on the numerical research data was supported by student opinions resulting from the open-ended questions in the focus group discussions. Within Subtheme 5.3.3.1, the two student groups stated that they were often taught using conventional teaching approaches such as lectures, answering questions and through PowerPoint presentations. There was no variety of learning activities. A sample perspective was presented by a Buddhist female student from the south, who said that:

We (as B.Ed. students) are often taught using lectures, answering questions and using PowerPoint presentations. For example, during a lesson, after lecturing and presenting a video clip via YouTube, the lecturer would ask questions and give us a worksheet.

(Suda, pseudonym,
See the original Thai version in Appendix 8, p. 362)

Qualitative research findings showed that B.Ed. students did not realise opportunities for learning through diverse activities such as critical thinking and problem resolution. They had been taught following conventional teaching approaches. Both the quantitative and qualitative research results are in accordance with the findings of the literature review with regards to teaching and learning in a B.Ed. programme at Capital

City University in Bangkok, Thailand. In the B.Ed. classes, students were only familiar with being taught using conventional teaching procedures (the Educational Quality Assurance Agency, Faculty of Education, Capital City University, 2016).

Students find it difficult to acquire new knowledge through traditional teaching methods. Muijs and Reynolds (2018) argue that *'people cannot simply receive an idea from others'* (p.72). In other words, they believe that students must discover knowledge for themselves. Teachers should avoid transmitting their ideas by means of a lecture. Hence, the application of innovative teaching approaches is required to provide active learning activities in the classroom (Ashman, 2018).

Although new teaching techniques and educational technology were suggested for use in B.Ed. classes under the auspices of the Educational Quality Assurance of Capital City University, the practical application of a variety of teaching methods and activities was limited because of the uncertain number of students attending class (Admissions and Records Office, Capital City University, 2014). This issue derived from self-study educational opportunities fostered by the educational policy of Capital City University. This circumstance had the tendency to prevent lecturers who were responsible for teaching the B.Ed. programme from teaching using a variety of learning activities such as group activities and problem-solving assignments. Hence, conventional teaching approaches still generally prevailed in B.Ed. classes.

6.2 Interpretation of the research findings in association with Research Question Two

In order to address Research Question Two *'What are the effects of the SACM on the problem-solving skills of Thai B.Ed. students undertaking a Thai literature course?'*, the research results were assessed by means of a cross-tabulation table. Within

the teaching of Thai language and literature, the evaluation of a new teaching model focused on improvements in student ability after learning by following an innovative teaching model (Maneesorn, 2014; Muangsrijan, 2016; Pairat, 2016; Pingjai, 2012; Pumpachart, 2012). However, this evaluation concept was insufficient in terms of providing an entire picture of the practical application of the teaching model within Thai language and literature contexts. Khammanee (2017) points out that in order to provide a broader picture, the teaching model should be considered in relation to its strengths and weaknesses. Hence, this idea was adopted in the research by virtue of investigating the strengths and weaknesses of the SACM within Thai educational and cultural contexts. In this section, an evaluation of the SACM is comprised of two subsections. Subsection 6.2.1 demonstrates the impact of the SACM on Thai B.Ed. students' problem-solving skills. Subsection 6.2.2 presents the SACM impact on the learning of Thai literature. Details are shown in Table 6.2.

Table 6.2: An evaluation of the SACM

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.2.1 SACM and Thai B.Ed. students' problem-solving skills	6.2.1.1 The strengths of SACM			
	6.2.1.1.1 Analysing a problem	Within the assessment criterion of the problem-solving process, the Experimental group had problem-solving skills scores that were higher than the Control group after the experiment. The significance levels (p) at 0.013 (analysed by the Mann-Whitney U test) and 0.015 (analysed using the Independent Sample t-test) were < 0.050.	In Part 1, ' <i>the problem-solving skills</i> ', the Experimental group had higher scores in response attitudes towards problem resolution and the learning of Thai literature than the Control group after the experiment. The significance levels (p) at 0.000 (analysed by the Mann-Whitney U test) and 0.000 (analysed using the Independent Sample t-test) were < 0.050.	Subtheme 5.3.1.3: The Experimental group students were happy with group assignments as part of SACM activities. Additionally, the students were able to clearly identify and analyse the problem within the assignments.
	6.2.1.1.2 Selecting and evaluating an appropriate solution	Within the assessment criterion of the problem-solving process, the Experimental group had higher scores in problem-solving skills scores than the Control group after the experiment. The significance levels (p) at 0.013 (analysed by the Mann-Whitney U test) and 0.015 (analysed using the Independent Sample t-test) were < 0.050.	Within Part 1, ' <i>the problem-solving skills</i> ', the scores demonstrated that: Item 6 ' <i>After listening to friends' suggestions, I will revise my ideas about a problem and plan a relevant solution.</i> ' There was little difference in scores of response attitudes towards problem resolution and the learning of Thai	Subtheme 5.3.1.1: The Experimental group students stated that the process of selecting and evaluating an appropriate problem can lead to sharing different perspectives offered by group members. Due to this process, the solution was clarified in relation to its strengths and weaknesses.

* $p < 0.050$

Table 6.2: An evaluation of the SACM (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.2.1 The SACM and Thai B.Ed. students' problem-solving skills	6.2.1.1.2 Selecting and evaluating an appropriate solution		<p>literature between the two groups after the experiment. The significance levels (p) at 0.056 (analysed by the Mann-Whitney U test) and 0.062 (analysed using the Independent Sample t-test) were > 0.050.</p> <p>Item 9 '<i>If a lecturer asks me to evaluate the plan for a solution, I will keep silent.</i>' There was little difference in the scores in response attitudes towards problem resolution and the learning of Thai literature between the two groups after the experiment. The significance levels (p) at 0.068 (analysed by the Mann-Whitney U test) and 0.085 (analysed using the Independent Sample t-test) were > 0.050.</p>	
	6.2.1.2 The weakness of the SACM: teacher and student interactions within SACM activities	-	<p>Within Part 1 '<i>the problem-solving skills</i>', the scores were shown that: Item 7 '<i>I can clearly identify and analyse a problem when I answer the lecturer's questions.</i>'</p>	<p>Subthemes 5.3.3.1 and 5.3.3.3: Students enjoyed discussion and debate activities. However, they preferred to avoid answering questions given by the teacher within teacher participation in group discussion.</p>

* $p < 0.050$

Table 6.2 An evaluation of the SACM (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.2.1 The SACM and Thai B.Ed. students' problem-solving skills	6.2.1.2 The weakness of the SACM: teacher and student interactions within SACM activities	-	<p>The Experimental group had higher scores in response attitudes towards problem resolution and the learning of Thai literature than the Control group after the experiment. The significance level (p) at 0.044 (analysed by the Mann-Whitney U test) was < 0.050.</p> <p>There was, however, little difference in the scores in response attitudes towards problem resolution and the learning of Thai literature between the two groups after the experiment. The significance level (p) at 0.056 (analysed using the Independent Sample t- test) was > 0.050.</p> <p>Item 9 '<i>If a lecturer asks me to evaluate the plan for a solution, I will keep silent.</i>' There was little difference in scores in response attitudes towards problem resolution and the learning of Thai literature</p>	

* $p < 0.050$

Table 6.2 An evaluation of the SACM (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.2.1 The SACM and Thai B.Ed. students' problem-solving skills	6.2.1.2 The weakness of the SACM: teacher and student interactions within SACM activities		<p>between the Experimental and Control groups after the experiment. The significance levels (p) at 0.068 (analysed by the Mann-Whitney U test) and 0.085 (analysed using the Independent Sample t-test) were > 0.050.</p> <p>Part 2 Item 4 <i>'After a debate with my friends and teacher about Thai literature themes and ideas, I can receive new perspectives such as objective, characters and aesthetic language.'</i> There was little difference in scores in response attitudes towards problem resolution and the learning of Thai literature between the two groups after the experiment. The significance levels (p) at 0.626 (analysed by the Mann-Whitney U test) and 0.675 (analysed using the Independent Sample t-test) were > 0.050.</p>	

* $p < 0.050$

Table 6.2 An evaluation of the SACM (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.2.2 The SACM and the learning of Thai literature	6.2.2.1 The strength of the SACM: understanding Thai literature themes and ideas	The Experimental group had higher total scores in problem-solving skills than the Control group after the experiment. The significance levels (p) at 0.038 (analysed by the Mann-Whitney U test) and 0.031 (analysed using the Independent Sample t-test) were < 0.050.	Part 2 ' <i>learning activities within a Thai literature classroom</i> ', The Experimental group had higher scores in response attitudes towards problem resolution and the learning of Thai literature than the Control group after the experiment. The significance level (p) at 0.000 (analysed by the Mann-Whitney U test) and 0.000 (analysed by the Independent Sample t-test) were < 0.050.	Subtheme 5.3.3.1: The Experimental group students claimed that they were able to analyse Thai literature themes and ideas as a result of the activities within discussions and debates.
	6.2.2.1 The weaknesses of the SACM 6.2.2.1.1 An appreciation of Thai literature	-	In Part 2, ' <i>learning activities within a Thai literature classroom</i> ', the scores were as follows: Item 4 ' <i>After a debate with my friends and teacher about Thai literature themes and ideas, I can receive new perspectives such as objective, characters and aesthetic language.</i> '	Subthemes 5.3.2.1 and 5.3.2.3: The two student groups pointed out that the purpose of reading Thai literature was to prepare for experience in the field of teaching and a future career as a schoolteacher. Additionally, some students did not understand Thai literature themes and ideas based on Buddhist principles, lacking of appreciation because of their different culture and the need to avoid sensitive discussion topics.

* $p < 0.050$

Table 6.2 An evaluation of the SACM (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.2.2 The SACM and the learning of Thai literature	6.2.2.1.1 An appreciation of Thai literature	-	<p>There was little difference in the scores in response attitudes towards problem resolution and the learning of Thai literature between the two groups after the experiment. The significance levels (p) at 0.626 (analysed by the Mann-Whitney U test) and 0.675 (analysed using the Independent Sample t-test) were > 0.050.</p> <p>Item 5 '<i>Discussion in a small group (3-4 students) makes me enthusiastic to learn about Thai literature.</i>' The Experimental group had higher scores in response attitudes towards problem resolution and the learning of Thai literature than did the Control group after the experiment.</p>	

* $p < 0.050$

Table 6.2 An evaluation of the SACM (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussions
6.2.2 The SACM and the learning of Thai literature	6.2.2.1.1 An appreciation of Thai literature		<p>The significance levels (p) at 0.029 (analysed by the Mann-Whitney U test) and 0.026 (analysed using the Independent Sample t-test) were < 0.050.</p> <p>Item 6 '<i>When I analyse Thai literature themes and ideas, I will not mention them or avoid being negative.</i>' There was little difference in the scores in response attitudes towards problem resolution and the learning of Thai literature between the two groups after the experiment.</p> <p>The significance levels (p) at 0.700 (analysed by the Mann-Whitney U test) and 0.746 (analysed using the Independent Sample t-test) were > 0.050.</p>	

* $p < 0.050$

Table 6.2 An evaluation of the SACM (Cont.)

Topic		Quantitative research data		Qualitative research data
		Scores resulting from the Problem-Solving Skills test	Scores resulting from the Attitude Questionnaire	Student opinions resulting from open-ended questions in the focus group discussion
6.2.2 The SACM and the learning of Thai literature	6.2.2.1.2 The application of Thai literature in everyday life situations	Within the assessment criterion of the application of Thai literature in everyday life situations, the experiment did not provide notable evidence of any differences between the two student groups. The significance levels (p) at 0.133 (analysed by the Mann-Whitney U test) and 0.169 (analysed using the Independent Sample t-test) were > 0.050.	Within Part 2 Item 8, ' <i>During discussion within a Thai literature classroom, I am confused about mixing different ideas to create a possible solution.</i> ' There was little difference in scores in response attitudes towards problem resolution and the learning of Thai literature between the two groups after the experiment. The significance levels (p) at 0.856 (analysed by the Mann-Whitney U test) and 0.826 (analysed using the Independent Sample t-test) were > 0.050.	Subtheme 5.3.2.4: The two student groups advised that Thai literature themes and ideas should be applied in order to solve moral problems

* $p < 0.050$

As shown in Table 6.2, an assessment of the SACM with regards to Thai B.Ed. students' problem-solving skills and the learning of Thai literature is demonstrated in the two subsections. Details are presented in the following section.

6.2.1 The SACM and Thai B.Ed. students' problem-solving skills

6.2.1.1 The strengths of the SACM

According to the quantitative and qualitative results, the evidence showed that the SACM can further the improvement of Thai students' problem-solving skills in relation to the process of analysing a problem and selecting and evaluating an appropriate solution.

6.2.1.1.1 Analysing a problem

In terms of the quantitative research data, supportive evidence was found in the scores resulting from the test and the questionnaire. In the test, the scores in the Experimental group had higher scores in problem-solving skills than the Control group after the experiment. The significance levels (p) at 0.013 (analysed by means of the Mann-Whitney U test) and 0.015 (analysed using the Independent Sample t-test) were < 0.050 . Moreover, the scores resulting from the questionnaire in Part 1 '*problem-solving skills*' showed that the Experimental group had higher scores in response attitudes towards problem resolution and the learning of Thai literature than the Control group after the experiment. The significance levels (p) at 0.000 (analysed by means of the Mann-Whitney U test) and 0.000 (analysed using the Independent Sample t-test) were < 0.050 .

The quantitative research results demonstrated that the Experimental group students, who were taught using the SACM, had higher scores in ability and attitudes towards problem resolution than the Control group students who were taught using conventional teaching methods. In other words, SACM activities can have a positive impact on the

process of developing problem-solving skills. However, the results of quantitative research data were not able to provide evidence that the application of the SACM can improve the process of analysing a problem because the test and the questionnaire were only used to investigate an overview of the problem-solving process. Nevertheless, supportive evidence for such an improvement was found in the qualitative research data.

According to student opinions resulting from open-ended questions in the focus group discussions, the Experimental group students claimed that they were happy with group assignments as part of SACM activities. In addition, the students were able to clearly identify and analyse problems within the group assignments. An idea was presented by a Buddhist male student from the north-east, who said:

I was happy to undertake the group assignments with classmates. We were able to identify and analyse the problem within the group discussion.

(Somphop, pseudonym,
See the original Thai version in Appendix 8, p. 363)

The quantitative and qualitative research data were related to the findings of the literature review in terms of the characteristics of the SACM. Within SACM activities, a discussion topic or a problem was clarified by group members (Johnson, 2015). All students in small groups were able to independently share different ideas (Estes and Mintz, 2016). Hence, the SACM can support students' abilities to analyse a problem.

The findings in this research are similar to the results of the three empirical studies with regard to the application of the structured academic controversy (Lo and Adams, 2018; Morais et al., 2017; Tavakoli et al., 2017). The results of the empirical research showed that the students had opportunities to share different experiences and perspectives with each other during learning through discussion and debate activities. In this regard, the

students' academic abilities were improved in relation to argumentative skills, English proficiency and deep understanding of civic literacy.

6.2.1.1.2 Selecting and evaluating an appropriate solution

The process of selecting and evaluating an appropriate solution was shown in the quantitative and qualitative research results. This process is an essential part of problem-solving skills (Robertson, 2017). According to the quantitative research data, the scores resulting from the test and the questionnaire demonstrated supportive evidence. In accordance with the assessment criterion for the problem-solving process in the test, the Experimental group had higher scores in problem-solving skills than the Control group after the experiment. The significance levels (p) at 0.013 (analysed by means of the Mann-Whitney U test) and 0.015 (analysed using the Independent Sample t-test) were < 0.050 .

From the questionnaire, evidence was found within Part 1 Items 6 and 9. In Item 6, which concentrated on revising a solution after listening to friends' suggestions, the scores showed that there was minimal difference in response attitudes towards problem resolution and the learning of Thai literature between the two student groups, Experimental and Control, after the experiment. The significance levels (p) at 0.056 (analysed by means of the Mann-Whitney U test) and 0.062 (analysed using the Independent Sample t-test) were > 0.050 .

Additionally, Item 9 focused on avoiding evaluating a solution after receiving the advice of the teacher. The evidence showed that there was a slight difference in the scores of response attitudes towards problem resolution and the learning of Thai literature between the two student groups after the experiment. The significance levels (p) at 0.068 (analysed by means of the Mann-Whitney U test) and 0.085 (analysed using the Independent Sample t-test) were > 0.050 .

In terms of the quantitative research data, the scores resulting from the test and the questionnaire were divergent. In this research there were limitations to meaningful discussions about the implication of these scores. Although the B.Ed. students' problem-solving skills were demonstrated in the scores achieved resulting from the test, such scores could not be used to present clear evidence in relation to the process of selecting and evaluating an appropriate solution. This limitation was similar to section 6.2.1.1.1. The scores resulting from the questionnaire were only able to demonstrate that there was a slight difference between the two student groups. It was not possible to identify the level of agreement (strongly agree to strongly disagree) using the scores, according to the Likert scale. Hence, an interpretation of the quantitative research data had limitations in this section.

However, the scores resulting from the test were related to the qualitative research data. Within the focus group discussion, the Experimental group students stated that they were able to adopt a plan in relation to the process of selecting and evaluating an appropriate solution. A sample view was shown by a Buddhist male student from the north-east, who said that:

We (as group members) were able to select and analyse the solution with respect to its strengths and weaknesses. Supportive ideas were given during discussion and debate activities.

(Nikom, pseudonym,
See the original Thai version in Appendix 8, p. 363)

In reviewing the literature, SACM activities can support problem resolution in terms of the process of selecting and evaluating a solution (Hesse et al., 2015). This topic linked in with the scores resulting from the test and student opinions resulting from the open-ended questions in the focus group discussions. On account of the discussion and debate activities, students within small groups were able to justify and elaborate on a solution together (Johnson, 2015). This idea relates to the concept of *'the power of conflict in*

classrooms' (Estes and Mintz, 2016, p. 192) which is based on the theory of constructive controversy (see section 3.2.1.3). Long et al., (2011) pointed out that although both views in agreement and disagreement were presented during the group negotiations, a solution was achieved as part of a group consensus in relation to possibility and appropriateness (Johnson and Johnson, 2014; Webb, 2013).

6.2.1.2 The weakness of the SACM: teacher and student interactions within SACM activities

The drawbacks of the SACM were considered on the basis of the scores resulting from the questionnaire and student opinions resulting from the open-ended questions in the focus group discussions. However, the scores resulting from the test were not able to show supportive evidence because the topic of teacher and student interactions was not intended as an investigative part of the assessment criteria of the test. Within the questionnaire, evidence was found in three items, namely, Part 1, Items 7 and 9, and Part 2, Item 4. Generally, scores within these three items showed that there was minimal difference in response attitudes towards problem resolution and the learning of Thai literature between the two student groups.

For Part 1, Item 7, which focused on analysing a problem after answering the teachers' questions, the significance level (p) at 0.044 (analysed by means of the Mann-Whitney U test) was < 0.050 . Meanwhile, the significance level (p) at 0.056 (analysed using the Independent Sample t-test) was > 0.050 . In Item 9, which addressed whether students avoided revising a solution after receiving a teacher's suggestion, the significance levels (p) at 0.068 (analysed by the Mann-Whitney U test) and 0.085 (analysed using the Independent Sample t-test) were > 0.050 . Additionally, in Part 2, Item 4, which focused on embracing new ideas after a debate with friends and a teacher, the significance levels (p) at 0.626 (analysed by means of the Mann-Whitney U test) and 0.675 (analysed using the Independent Sample t-test) were > 0.050 .

The quantitative research data resulting from the three items can be explained in that although the two groups of students were divided and taught following different teaching approaches, namely the SACM and conventional teaching methods, there was minimal difference in the scores in attitude between the two student groups. In Part 1, Item 7, although the Experimental group had higher attitude scores than the Control group after the experiment, analysed by means of the Mann-Whitney U test, the score was close to a significance level (P) of 0.050. However, using an overview of the quantitative research data, it was not possible to identify the level of agreement (strongly agree to strongly disagree) in relation to the Likert scale. This issue was similar to section 6.2.1.1.2.

In accordance with the qualitative research findings, student opinions in Subthemes 5.3.3.1 and 5.3.3.3 were demonstrated with regards to the interactions between teacher and student. Within the Experimental group, although the students claimed that they were happy to discuss and debate, they preferred to avoid addressing questions given by the teacher within small groups. A sample idea was offered by a Muslim female student from the south, who said that:

I was not confident in answering or having a discussion with a teacher because I was afraid of being incorrect and of the teacher's condemnatory comments. In my experience, I have not argued with any teachers. Hence, when a teacher asks a question, I prefer to keep silent.

(Apha, pseudonym,
See the original Thai version in Appendix 8, p. 363)

The quantitative and qualitative research data were in accordance with the findings of the literature review regarding the topic 'respect for adults', which was mentioned in section 6.1.1.3.1. According to students' prior experience, they are traditionally taught to be obedient and to have respect for parents, older family members and teachers. Within a classroom, students were not confident in asking any questions. They also

lacked proactive communication with teachers. For this reason ‘respect for adults’ in Thai culture can have a negative effect on the application of SACM in classrooms.

The weakness of the SACM relates to Piaget’s theory which believes that learning through conflict is limited when people have a different status (Long et al., 2011). Although students can argue independently with their classmates, they are not confident enough to present an opposing view to teachers and parents (Webb, 2013). Thus, learning can be ineffective. However, Piaget’s theoretical perspective contrasts with Vygotsky’s theory and the theory of constructive controversy which believes that students can improve their learning ability through conflict by virtue of discussion and debate with classmates, adults and experts (Hesse et al., 2015; Johnson, 2015).

6.2.2 The SACM and the learning of Thai literature

The effects of the SACM on the learning of Thai literature were evaluated in relation to its strength and weaknesses.

6.2.2.1 The strength of the SACM: the understanding of Thai literature themes and ideas

Supportive evidence for the strength of the SACM was found in both the quantitative and qualitative research data. According to the numerical research findings, total scores resulting from the three assessment criteria in the test showed that the Experimental group had higher scores in problem-solving skills than the Control group after the experiment. The significance levels (p) at 0.038 (analysed by means of the Mann-Whitney U test) and 0.031 (analysed using the Independent Sample t-test) were < 0.050 . Furthermore, in Part 2 of the questionnaire *‘learning activities within a Thai literature classroom’*, the Experimental group had higher scores in response attitudes towards problem resolution and the learning of Thai literature than the Control group after the

experiment. The significance levels (p) at 0.000 (analysed by means of the Mann-Whitney U test) and 0.000 (analysed using the Independent Sample t-test) were < 0.050 .

The quantitative research data resulting from the two research instruments demonstrated that the Experimental group students, who were taught following the SACM, had higher scores in problem-solving ability and attitude than the Control group students, who were taught through conventional teaching methods. However, the scores did not show any clear evidence in relation to the impact of the SACM on the understanding of Thai literature itself and its themes and ideas because they were not designed to give such evidence. The assessment criteria within the test and the questionnaire did not focus on a specific evaluation of the understanding of Thai literature. Thus, the two research instruments were only able to provide an overview.

Nonetheless, the supportive evidence was clear in the qualitative research data. In Subtheme 5.3.3.1, the Experimental group students claimed that they were able to analyse Thai literature themes and ideas through discussion and debate activities. A sample view was demonstrated by a Buddhist male student in the Experimental group from the north-east, who mentioned that:

After discussion and debate, I was able to comprehend and summarise the main ideas. The whole picture of the literature themes and ideas were clear to me, even though the literature consisted of old words and idioms.

(Somphop, pseudonym,
See the original Thai version in Appendix 8, p. 363)

The qualitative research results tie in with the characteristics of the SACM as mentioned in the literature review which states that after sharing diverse perspectives in discussion and debate activities, students within small groups can understand the main ideas and obtain an overview of the lesson (Johnson, 2015). Moreover, in the lesson, the focus was on key concepts rather than on in detail investigating (Estes and Mintz, 2016).

The SACM is different to conventional teaching approaches which focus on memorisation and translation. Nagavajara (2010) stated that teachers would like their students to deeply analyse the literature's components rather than merely understand the coherence of the literature (Supanvanit, 2014). As a result, the SACM is an innovative teaching approach for the learning of Thai literature because it was able to support the B.Ed. students in their ability to clarify Thai literature themes and ideas.

6.2.2.2 The weaknesses of the SACM

Although there was evidence to show that the SACM can support the understanding of Thai literature themes and ideas, drawbacks to the application of the SACM within a Thai educational and cultural context were investigated. The following two subsections give further information about these drawbacks with respect to an appreciation of Thai literature and the application of Thai literature in everyday life situations.

6.2.2.2.1 An appreciation of Thai literature

The scores resulting from the problem-solving skills test were not able to support this topic because the assessment criteria of the test did not specially focus on an appreciation of Thai literature. However, some evidence was found in the scores resulting from three items (Items 4 - 6) within the questionnaire. The three items were based on Part 2 *'learning activities within a Thai literature classroom'*. The three items consisted of keywords in relation to the appreciation of Thai literature. In Item 4, with regard to embracing new ideas after a debate with friends and the teacher, the scores showed that there was minimal difference in response attitudes towards problem resolution and the learning of Thai literature between the two student groups after the experiment. The significance levels (p) at 0.626 (analysed by means of the Mann-Whitney U test) and 0.675 (analysed using the Independent Sample t-test) were > 0.050 .

But Item 5 did give some supporting evidence in favour of the effectiveness of the SACM. Regarding students' enthusiasm towards learning about Thai literature through discussion, the results showed that the Experimental group had higher scores in response attitudes towards problem resolution and the learning of Thai literature than the Control group after the experiment. Significance levels (p) at 0.029 (analysed by means of the Mann-Whitney U test) and 0.026 (analysed using the Independent Sample t-test) were < 0.050 .

Scores resulting from Item 6 showed a difference to those of Item 5. Within Item 6, the scores focused on avoiding being negative in relation to analysing Thai literature. The scores showed that there was a slight difference in response attitudes towards problem resolution and the learning of Thai literature between the two student groups. Significance levels (p) at 0.700 (analysed by means of the Mann-Whitney U test) and 0.746 (analysed using the Independent Sample t-test) were > 0.050 .

The quantitative research results clarified that the Experimental group students who were taught using the SACM were happier and more enthusiastic in discussion activities when compared to the Control group students, who were taught through conventional teaching methods. But this attitudes difference was not apparent from the scores in Items 4 and 6 which showed that although the two student groups were taught according to two different teaching procedures, there was minimal difference in attitude scores between the two student groups regarding debate and avoiding being negative when analysing Thai literature.

Although the scores in the three items presented the evidence from learning by two different teaching approaches, the scores were not able to confirm whether the SACM did or did not support an appreciation of Thai literature. Items 4 and 6 did not clearly

identify a level of agreement (strongly agree to strongly disagree) in terms of the Likert scale. This limitation was similar to that shown in section 6.2.2.1.

However, the qualitative research data did demonstrate the drawbacks of the SACM with respect to an appreciation of Thai literature. Student opinions in Subthemes 5.3.2.1 and 5.3.2.3 from the two student groups indicated their view that the purpose of reading Thai literature was to prepare for the experience of teaching in the field and a future career as a schoolteacher. The conclusion did not mention an appreciation of Thai literature.

This is in accordance with the findings of the literature review regarding the aim of studying in a B.Ed. programme. Students apply for enrolment in a B.Ed. programme because they wish to receive a teacher licence after graduation. The teacher licence is a requirement for all schoolteachers in Thailand (Teachers' Council of Thailand, 2018). But the motivation for obtaining one is conditioned upon the perks of a state supplied pension and welfare benefits which go hand in hand with the post (Siribanpituk, 2018). A love of the reading and teaching of Thai literature was not expressed as a primary reason for enrolment on a B.Ed. programme.

Students were limited in their ability to clarify and interpret Thai literature themes and ideas based on Buddhist principles. They were not interested in different cultures and preferred to avoid mentioning sensitive topics in Thai society such as restrictions on different religions, gender diversity, the Thai royal family and the military. A perspective was given by a Muslim female student from the south, who claimed that:

Everyone realised that religion was a sensitive topic. Although there was a disagreement viewpoint, the teacher usually avoided mentioning it. In a Thai literature classroom, if I found a topic sensitive, I would leave and change to study another topic that would not lead to any conflicts.

(Somsri, pseudonym,
See the original Thai version in Appendix 8, p. 364)

The research results were related to the findings in the literature review regarding the application of SACM activities in Thai culture. Although discussion and debate activities can support an understanding of Thai literature, activities were limited in relation to a discussion about sensitive topics. Traditionally, these topics are not discussed in a classroom in Thailand because they can lead to conflict in Thai society (Fry, 2018; Hewison, 2014).

To resolve this drawback, SACM activities should be well-prepared in association with the awareness of different cultural contexts. Although students can show their diverse views independently in SACM activities, discussion topics should be respected and treated cautiously and appropriately (Hewison, 2014; Ketmankij, 2015; Thongaght, 2013).

6.2.2.2.2 The application of Thai literature in everyday life situations

In this section, supportive evidence was shown in the quantitative and qualitative research results. In the test, results in the application of Thai literature in everyday life situations showed that there was a slight difference in the problem-solving skills scores between the two student groups. The significance levels (p) at 0.133 (analysed by means of the Mann-Whitney U test) and 0.169 (analysed using the Independent Sample t-test) were > 0.050 .

Additionally, in the questionnaire, the scores in Part 2, Item 8, regarding combining different Thai literature ideas to create a solution, showed that there was minimal difference in scores in response attitudes towards problem resolution and the learning of Thai literature. The significance levels (p) at 0.856 (analysed by means of the Mann-Whitney U test) and 0.826 (analysed using the Independent Sample t-test) were > 0.050 .

The quantitative research data resulting from the test and the questionnaire can be explained in that although the two student groups were taught following different teaching approaches, namely the SACM and conventional teaching methods, there was only a slight difference in problem-solving ability and in attitude scores between the two student groups. In other words, the SACM was not clearly able to support students' abilities to apply Thai literature in everyday life situations. In addition to this, the attitude scores were not able to identify any consistent clear level of agreement (strongly agree to strongly disagree) in relation to the Likert scale.

An interpretation of the quantitative research findings is associated with Subtheme 5.3.2.4 within the qualitative research data. The two student groups claimed that Thai literature themes and ideas should be applied to solve moral problems. From student perception and prior experience, the students are traditionally taught to analyse Thai literature in connection with Thai culture based morals and Buddhist principles. An idea was provided by a Buddhist female student from the central area, who said that:

From my experience, after reading Thai literature teachers often asked me and my classmates about Thai literature ideas with respect to morals. The teachers also linked the literature ideas with Buddhist proverbs that are applied in everyday life.

(Penporn, pseudonym,
See the original Thai version in Appendix 8, p. 364)

The quantitative and qualitative research data related to the findings of the literature review regarding the teaching of Thai literature and the term ‘problem-solving skills’ in Thai education. In teaching Thai literature, teachers are familiar with interpreting literature in relation to morals and Buddhist principles (Supanvanit, 2014). This is similar to reading Aesop’s fables which focus on moral ideas (Changkhanyaun, 2017). Moreover, problem-solving skills within a Thai literature classroom are often directed towards solving moral problems (Devayasuvan, 2011).

When SACM activities were employed in the Thai literature course, the Experimental group students were still familiar with the traditional style of reading and analysing Thai literature based on their prior experience (Thongaht, 2013). Hence, the application of the SACM in a Thai literature classroom tended to be ineffective in creating diverse perspectives with regards to applying Thai literature to everyday life situations.

The weakness of the SACM shows that the application of the SACM, namely the American teaching model, is imperfect as a support for Thai students’ learning abilities. This infers that the adoption of new pedagogical perspectives from a different culture needs to be treated cautiously and appropriately within a particular educational and cultural context (Ashwin et al., 2015; Bartlett and Burton, 2016; Crocco, 2018).

6.3 Summary

The aim of this chapter was to interpret research data in an attempt to answer the research questions. In response to research question One, the development of Thai B.Ed. students’ problem-solving skills was limited on account of several negative factors. The internal factors were related to vagueness in the application of academic knowledge to solve everyday life problems, the group preference learning style and the boundaries as respects Thai culture. The external factors were concerned with the educational system at Capital City University in Bangkok, Thailand and pedagogy in

B.Ed. classrooms. In response to research question Two, the research findings showed that SACM activities can support Thai B.Ed. students' problem-solving skills in relation to the process of analysing a problem and selecting and evaluating an appropriate solution. When it comes to the learning of Thai literature, although the students were able to analyse literature themes and ideas within SACM activities, SACM was limited in its ability to support students' appreciation of Thai literature and the application of it to themes and ideas in everyday life situations. Additionally, comparisons between the quantitative and qualitative research results were limited because of the distinctive characteristics of the three research instruments of the problem-solving skills test, the attitude questionnaire and the open-ended questions in the focus group discussions. Furthermore, convergent and divergent research data were found from data triangulation. Some research limitations and recommendations are provided in the next chapter.

CHAPTER SEVEN

CONCLUSION

7.0 Introduction

The interpretation of research findings in the previous chapter showed that the results were complex in relation to the comparison of quantitative and qualitative research data. A summary of the research results is, therefore, required. This chapter presents a conclusion regarding the research findings. The following subsections are included in the chapter. Subsection 7.1 provides a summary of the research results in order to address the research questions. The contribution to knowledge in subsection 7.2 is demonstrated in connection with research - informed practice in Thai educational and cultural contexts. In addition, in subsection 7.3, the research limitations are considered in relation to the size of the target population, the accuracy and reliability of scores resulting from the problem-solving skills test, the translation of the Thai language into English and the data triangulation. Furthermore, recommendations and implications for further studies are provided in subsections 7.4 and 7.5 respectively. Finally, subsection 7.6 provides a summary of this chapter.

7.1 Summary of research findings

7.1.1 Addressing Research Question One

To address Research Question One *'Why do Thai B.Ed. students find it difficult to develop the required problem-solving skills?'*, research findings were considered in relation to the following internal and external factors.

7.1.1.1 Internal factors

The internal factors were defined as the drawbacks that were related to prior experience and the background of the research participants, who were B.Ed. students (Thai major)

at Capital City University in Bangkok, Thailand. Three internal factors were considered in relation to the vagueness of the application of academic knowledge to solve everyday life problems, the group preference studying technique and the boundaries regarding Thai culture. Regarding the first factor, the students were confused about how to apply academic knowledge to solve everyday life problems. From the students' perception and prior experience, problems in everyday life should be solved by applying morals and principles of religion, whereas academic knowledge should be applied to solve academic problems such as those in mathematics and science examinations. The students did not receive clear explanations and examples regarding the application of academic knowledge to overcome everyday life issues.

Regarding the students' preferred studying style of learning in groups, the students preferred to conduct group tasks with classmates who had similar characteristics in relation to religious affiliation (Buddhist and Muslim students), dialect and domicile. This studying method was seen in undergraduate students in Capital City University who mostly came from different regions of Thailand, especially the north-eastern and southern regions (the Office of the President, Capital City University, 2015b). However, research data showed that the students did not have the confidence to share ideas with classmates who had different cultural aspects. Due to this limitation, it was often difficult for the students to create diverse perspectives to complete problem-solving activities and group assignments.

When considering boundaries of Thai culture, respect for adults and the appropriateness of 'time and place' were traditional ideas that led to the limitation in developing problem-solving skills. Although Thai children are taught to be obedient and have respect for adults to develop good relationships between children and adults in Thai society, the cultural concept of respect for adults can have a negative impact on student perceptions of the fear of being incorrect and receiving condemnatory comments from

the teacher. The research data showed that these pessimistic perceptions derived from students' prior experience in secondary education and the university. On account of their negative experiences, students preferred to remain silent and avoid answering teacher's questions in the classroom. Moreover, the students did not have the confidence to ask the teacher for suggestions.

In addition, students were not certain about how to create a solution in relation to the awareness of the appropriateness of 'time and place' within Thai culture. An example was given of contacting a teacher via mobile phone apps such as Facebook and WhatsApp at any time. Furthermore, students were confused about how to appropriately communicate with university lecturers by the usage of one of the five distinct registers of the Thai language. On account of this limitation, students were not capable of stating the reason for their enquiry within their communication (Changkhwanyaun, 2017). Therefore, they preferred to solve problems by themselves rather than asking for advice from teachers.

7.1.1.2 External factors

The external factors referred to the drawbacks that derived from the educational system of Capital City University and the pedagogy within B.Ed. classrooms. According to the Academic Marketplace educational policy, learning opportunities were offered to all undergraduate students at the university. Opportunities were seen as being provided through the educational system by way of re-enrolment and re-examination. For the B.Ed. programme, students had the opportunity to re-apply and be re-examined over a maximum period of ten years (the Office of the President, Capital City University, 2015a). The system of re-enrolment and re-examination was offered for the benefit of students who missed and/or failed the examination but this educational system can lead to inattention to their studies in the B.Ed. programme because students were not worried about failing the examination. Moreover, they felt they only needed to meet the minimal

assessment criteria of the examination. The purpose of studying in the B.Ed. programme was conditioned by the educational system. Research data showed that students applied to join this programme because they wanted to obtain a teacher licence after graduation, as it was a requirement for all schoolteachers in Thailand.

This reality overshadowed the need to focus on the appreciation of the academic contents within B.Ed. classes. Consequently, students lacked familiarity with completing learning activities and assignments regarding problem resolution. In addition, students were taught through conventional teaching methods, particularly lecture, question-answer and PowerPoint presentations. There was little variety to their learning activities. As a consequence students were not enthusiastic about attending B.Ed. classes.

In brief, the development of Thai B.Ed. students' problem-solving skills was limited because of drawbacks based on internal and external factors. Internal factors refer to students' perception and prior experience in relation to Thai culture. External factors relate to the educational system offered by Capital City University in Bangkok, Thailand, and pedagogy regarding teaching methods in B.Ed. classrooms.

7.1.2 Addressing Research Question Two

To address Research Question Two '*What are the effects of the SACM on the problem-solving skills of Thai B.Ed. students undertaking a Thai literature course?*' research data were considered in relation to the evaluation of the SACM and its impact on Thai students' problem-solving skills and the learning of Thai literature. Details are presented in the following section.

7.1.2.1 The SACM and Thai B.Ed. students' problem-solving skills

For this research, the SACM was assessed with regard to its strengths and weaknesses that had effects on the Thai students' problem-solving skills. The research findings showed that students were able to improve their problem-solving skills through SACM activities related to analysing a problem within small groups. They were able to select and evaluate an appropriate solution within group assignments. Supportive reasons were considered in relation to the concept of the SACM that focused on learning by sharing different ideas within small groups. A conflict can lead to the clarification and understanding of a knowledge topic (Johnson, 2015). Resulting from this concept, students tried to clarify the discussion topic or issue within discussion and debate activities. Within small student groups all group members had opportunities to present their opinions of agreement or disagreement. Therefore, group assignments could be successfully completed.

However, the SACM was limited in its support of proactive interactions between teacher and student. Research findings showed that although students enjoyed discussing and debating within small groups, they did not have the confidence to answer questions asked by the teacher. Students did not want to debate with the teacher. They preferred to remain silent when the teacher participated in their group.

The drawback was explained through the fear of being incorrect and receiving condemnatory comments from the teacher by virtue of students' prior experience. Fear was also related to the boundaries of Thai culture in terms of the respect for adults that is embedded in Thai society. As a result, the successful application of the SACM to the teaching of Thai B.Ed. students was not realised as regards teacher participation in group discussion and debate activities.

7.1.2.2 The SACM and the learning of Thai literature

The positive impact of the SACM on the learning of Thai literature was clearly shown in qualitative research data. Within the discussion and debate activities, the students were able to understand Thai literature themes and ideas because they could share different views within small student groups. Although the Thai literature titles given in this research comprised old words and idioms, the students were able to summarise the main ideas and explain the coherence in the literature titles. This research evidence showed that SACM activities focused on the clarification of the discussion topic that was linked with the key concepts and main ideas rather than remembering and analysing the details within the literature. Subsequently, students did not attempt to explain the etymology and translate or paraphrase poems in the Thai literature titles.

However, the application of the SACM in a Thai literature classroom was limited in relation to the appreciation of Thai literature itself and the application of Thai literature themes and ideas to everyday life. For the application of Thai literature, research findings showed that although students can understand Thai literature themes and ideas within SACM activities, they read Thai literature because of the preparation it gives them for teaching in the field and their future career as schoolteachers but they did not mention any appreciation or impression they received from reading Thai literature.

Furthermore, by considering the students as belonging to minority student groups who read Thai literature, the limitations were considered with respect to the understanding of Buddhist principles, the lack of attention to different cultures, and the avoidance of sensitive topics in Thai society. These drawbacks derived from their prior experiences related to their cultural backgrounds and their learning experiences in Thai literature classrooms. In terms of the application of Thai literature in everyday life, students claimed that Thai literature themes and ideas should be applied to solve moral problems. In addition, literature themes and ideas were traditionally related to Buddhist principles

and proverbs (Devayasuvan, 2011). This student perspective showed that the application of the SACM had limited effect on the teaching of Thai literature.

To address Research Question Two, the strengths of the SACM related to the improvement of Thai B.Ed. students' problem-solving skills within the process of analysing a problem and selecting and evaluating an appropriate solution. However, the SACM did not support the proactive interactions between teacher and student. As regards the SACM and the learning of Thai literature, although students were able to understand Thai literature themes and ideas within the discussion and debate activities, the SACM had limitations in the furtherance of appreciation of Thai literature and the application of it in everyday life.

7.2 Contribution to knowledge

New knowledge should overcome and replace deficiencies in research and highlight new discoveries. Beyond extending the boundaries of knowledge, the fundamental characteristics of a contribution should be 'relevant or applicable' towards the development of a particular discipline (Baptista et al., 2015, p. 57). In an attempt to show the fulfilment of these requirements, the contribution to knowledge of this research is considered with respect to the SACM and its constructivist theories, an internationalisation education policy and the preparation of B.Ed. students for their future careers.

To provide a better understanding of the applicability of the SACM, as shown by the research findings, its underpinning constructivist theories of Piaget's peer interactions, Vygotsky's social constructivism and the theory of constructive controversy are here considered (see section 3.2.1). The research results showed that the B.Ed. students felt able to debate independently with their classmates but that they were still afraid of

giving wrong answers to questions and were not confident in presenting an opposing view to that of their teachers due to a traditional ‘respect for adults’ (see section 6.2.1.2). These interactions were as confirmed in Piaget’s peer interactions. Piaget’s theory emphasises that learning through conflict is limited when people have a different social status (Long et al., 2011). This theoretical view of Piaget contrasts with Vygotsky’s social constructivism and the theory of constructive controversy which both affirm that students can develop their learning through conflict by means of discussion and debate with classmates, adults and experts (Muijs and Reynolds, 2018; Pollard et al., 2019).

Although the research results can be explained in the light of Piaget’s constructivist theory, they are not so clearly interpreted via the impact of socio-cultural contexts on student learning. This pedagogical idea is mentioned in Vygotsky’s theory regarding communication and interpersonal relationships which focuses on proactive interactions between teacher and students within the classroom (Liu and Feng, 2015; Rob and Rob, 2018). The research findings showed that undesirable student learning approaches resulted from students’ attitudes and perceptions following their prior experiences. It has to be concluded that the three constructivist theories provide scant further clarification of the research results regarding the vitally important cultural context (Kyratzis and Johnson, 2017).

The aforementioned constructivist theories are principally based on cognitive development and an understanding of human cognition but the cultural factor is also mentioned. The cultural perspective is seen in the pedagogical SACM concept where the different characteristics of students within small groups are taken into account. For this research, the B.Ed. students were from different cultural backgrounds in terms of their religious affiliations (Buddhist and Muslim) and domicile (North-Eastern, Southern and Central Thailand) which is indeed relevant here but further consideration

needs to be given to cultural norms that have an effect on teacher and student relationships (Liu and Feng, 2015; Zhao, 2018). Cultural norms within a particular socio-cultural context are just casually mentioned in the constructivist theories but they can be very influential in the success or otherwise of the application of SACM in the classroom (Slavin, 2014).

Internationally, cultural norms and how well entrenched they are will always impinge on the applicability and effectiveness of the SACM in whatever nation an attempt is made to utilize it as part of a more enlightened pedagogy (Estes and Mintz, 2016).

An internationalisation education policy should be in place and communicated when teaching international students through the English language in both developed and developing nations (de Wit, 2011). Such a policy is often created to address the requirements of social and economic development but when the policy is adopted in the context of education in developing nations the term ‘internationalisation’ appears to imply the acceptance of knowledge, ideas, technology and culture from developed or ‘wealthier nations’ (often referred to as Western countries) by a developing nation in order to improve the quality of its education (Engwall, 2016; Ilieva et al., 2014, p. 877). However, the definition and purpose of the policy could perhaps be subject to the hopes and expectations of higher education institutions that wish to improve their international ranking and increase student admissions. Motives could be commercial in addition to academic (Ilieva et al., 2014). Nevertheless, an improvement in education outcomes is a prime reason for adopting teaching methods from developed countries (Berry and Tylor, 2014; Byram, 2018).

The subject of this research, the SACM, is an American teaching model which is applied to the teaching of Thai literature to Thai B.Ed. students. It is considered to be a new innovative teaching approach in Thai and other education institutions. The

application of the SACM in this research is related to the requirements of the Thai Education Policy. Education policies in general are usually complex and differently interpreted depending on the perceptions of leaders and policy-makers in individual countries (Berry and Tylor, 2014). Questions raised by this research are: is the application of the SACM truly innovative in the Thai higher education context and does it address the expectations of the education policy? Would the SACM meet with limitations due to cultural norms in whatever developing nation attempted to utilise it as part of an enlightened pedagogy?

Thai Higher Education policy makers tend to view innovative pedagogy and research as predominantly related to advancement in digital technology (Prangpatanpon, 2015). Additionally, research in education is expected to contribute an innovation that leads to concrete measurable results and commercial profits (Siribanpitak, 2018; the Office of the Higher Education Commission, 2018). Digital knowledge and skills are now considered to be key factors in relation to teaching and learning. Learning through face-to-face discussion is not especially popular now in Thai education (Sinlarat, 2015a). Consequently, these trends represent an additional challenge to the application of the SACM in B.Ed. classrooms. Policy-makers will need to be convinced of the applicability of the SACM over and above the advancement of digital technology.

In an attempt to answer the second question, the key aspects between this research and the education policy are compared by taking into account their respective objectives, procedures and expected outcomes. The purpose of this research is to overcome Thai B.Ed. students' learning challenges with respect to problem-solving skills in a Thai literature classroom, however, the aim of the policy is to address the reduction in student admission numbers at higher education institutes (Engwall, 2016; Mala, 2018b). Furthermore, students' learning problems are solved by means of research conducted within the classroom. Meanwhile, the administration and control of the education policy

depends on the requirements of the educational quality assurance system and the university's ranking by number of research publications and international students at the university (Engwall, 2016). To achieve the expected outcomes, this research is expected to provide further academic knowledge and experience to students through SACM activities, but the policy prospectus emphasises on the reputation of the university and a high number of student enrolments in university degree programmes (Byram, 2018; de Wit, 2011).

This research cannot clearly address the requirements of the education policy through consideration of the key aspects in terms of objectives, procedures and expected outcomes. This becomes a limitation due to the differing perspectives of the researcher, who is a teacher, and the university administrators who provide and control the policy (Revina and Leung, 2018). However, from the perspective of students who are focused on gaining insight into new approaches through the SACM rather than through learning by self-study (using textbooks and the internet) (Lavankura, 2013; Siribantitak, 2018), this research could arguably meet their expectations.

In addition, the acquisition of a licence to teach is the main motivation for students to enrol in the B.Ed. programme (see section 2.2.2 and 5.3.4.1). In Thailand, schoolteachers are guaranteed employment opportunities (Teachers' Council of Thailand, 2018; Thongthew, 2014), however, the obtaining of a teacher licence is not the aim of this research. Beyond focusing on receiving the teacher licence, the preparation of B.Ed. students is focused on the development of academic knowledge and experience (Sadruddin and Wahub, 2013). Although the scope of this research concentrates on the teaching of Thai literature, the research findings also contribute to the improvement of problem-solving skills in B.Ed. students who have different cultural backgrounds. This pedagogical idea can also be extended to other courses as well as to fieldwork (Estes and Mintz, 2016).

In Thai higher education, awareness of different cultures is not generally studied in the context of teacher education because this topic is quite sensitive in Thai society (Crocco, 2018; Siribanpitak, 2018). However, each country consists of various cultural groups, races, ethnicities and languages. The respect for different cultures is a wide-ranging idea that plays an important role in advocating social equality (Ragoonaden et al., 2015). On account of this, cultural awareness is expected to be seen in the classroom (Jenson, 2016). For this research, learning through SACM activities encourages B.Ed. students to understand and collaborate with classmates from different cultural backgrounds and is an opportunity to gain awareness of cultural differences (Kumar and Hamer, 2012).

7.3 Research limitations

On account of undertaking this research within a particular subject area at Capital City University in Bangkok, Thailand, research limitations are related to the small size of the target population, the accuracy and reliability of the scores resulting from the problem-solving skills test, the conveying of ideas correctly through the translation of the Thai language into English, and data triangulation. According to the Registration Office of the Faculty of Education, Capital City University (2016), there were 301 B.Ed. students (Thai major) who enrolled in the second year in 2017. However, they were enrolled in different B.Ed. courses each of which consisted of a different schedule time. It was not possible for the experimental research design to deal with these differences for those students to be the research population.

Consequently, the researcher carried out the research within one particular Thai literature course. The research participants were 72 B.Ed. students, all of whom were voluntary participants. They were, therefore, the target population in this research. Although the number of research participants seemed small for this statistical analysis, the solution was considered in relation to randomisation of the research sample (Cohen et al., 2018). Within the research, randomisation was applied in the research sampling in

an attempt at equivalence between two student groups, Experimental and Control in accordance with the research design (see sections 3.2 and 3.3).

With regard to the problem-solving skills test, research participants were required to give short written answers. The scores as a result of assessment were determined by none other than the researcher himself. The fairness of the scores needs to be guaranteed. Consequently, three lecturers from different universities in Thailand were invited to double-check the scores resulting from the test. This procedure was created by following the TQF assessment criteria (see section 4.11.1).

Furthermore, the translation of the Thai language into English was done by the researcher himself. The accuracy and appropriateness of the translation needed to be confirmed (Dhillon and Thomas, 2018). Although translating the Thai language into English can be achieved by using software programmes such as Google Translate, an awareness of conveying ideas correctly through the translation needs to be considered in relation to the particular characteristics of the Thai language in terms of five distinct registers, idioms and expressions (Changkhwanyaun, 2017).

Therefore, an emeritus lecturer in the field of teaching English as a foreign language was invited to double-check the translation of focus group transcripts and citations based on publications in the Thai language. Moreover, the research instruments, participant information sheet and consent form which were provided to research participants in the English language were then translated into the Thai language. Finally, three Thai lecturers were invited to approve the translation by following the process of the pilot study and the research ethics (see sections 4.7 and 4.10).

By means of a comparison of quantitative and qualitative research data, convergent and divergent research data were found. Although those research results were related to

the research questions, the research data resulting from the distinctive research instruments, namely the test, the questionnaire and the open-ended questions for the focus group had limitations when comparisons between them were attempted. Moreover, some research data were not able to provide clear evidence for addressing research questions.

To solve this limitation, the divergent research data were assessed by means of considering each distinct data source in relation to the research questions. Furthermore, explanations were given regarding why the research data were divergent (Plano Clark and Ivankova, 2016).

7.4 Recommendations

According to research conducted within a specific area of the B.Ed. programme (Thai major) at Capital City University in Bangkok, Thailand, limitations were found in connection with data collection and analysis. Although some drawbacks were resolved during the research process in an attempt to address better the research questions, other possible solutions were also considered. Some limitations were not overcome because of the time limit in relation to the research process. Hence, recommendations are offered in this section to provide more resolution perspectives for future studies.

There were different kinds of limitations, and this section focuses on drawbacks within the classroom, a space for which was available in the lesson plans for recoding them during the data collection. Additionally, suggestions are made regarding the preparation for teaching and learning in the classroom. Other issues relating to data analysis and advice are shown in the next section (7.5) in terms of implications for further studies. For this section, three topics are considered with respect to SACM activities and the class size, the reading of Thai literature and teacher-student relationships.

According to the concept of the SACM and the importance of learning within small groups, four students within each group were introduced (Johnson, 2015), but this had implications for class management by the teacher with respect to the class size. In accordance with SACM activities, a teacher needs to observe and give advice to students within a group. If the class size is too big, a teacher will have difficulty arranging appropriate learning activities for, and participation in, multiple groups of students (Sharan, 2014; Tavakoli et al., 2017). Moreover, some courses in Bachelor degree programmes have a large student enrolment. This necessitates students being taught merely through the style of a lecture - which is a reminder that learning within small groups is not generally considered to be the first choice in teaching (Huxley et al., 2018). Hence, adhering to the concept of the SACM also implies a radical rethink of class size management with the attendant financial implications, but the positive implications are that a smaller class size can lead to higher levels of student academic achievement (Altinok and Kingdon, 2012; Denny and Oppedisano, 2013). This smaller class size can allow a teacher to teach students by separating the class into smaller groups. In light of the aforementioned appraisal, whenever possible, universities should limit enrolment and class size if they wish to introduce the SACM into their curricula (Tavakoli et al., 2017). If the introduction of reduced enrolment and class sizes is impractical then team teaching could be an alternative consideration. SACM groups would then get an appropriate teacher input and teacher co-operation could lighten an excessive burden of teacher responsibility (Morais et al., 2017). However, thorough preparation is required for team-teaching, implying that all members of a teaching team are in agreement regarding the roles of teachers and students, learning outcomes, activities, individual and group tasks and assessment (Crawford and Jenkins, 2018). The preparation for this teaching approach is time-consuming and can involve conflicts of scheduling (Aliakbari and Nejad, 2013). Teaching assistants could be employed to help SACM activities preparation, in accordance with guidelines, providing that the employment budget can allow for such a contingency (Metzger, 2015).

Within a Thai literature classroom, a problem was found in relation to the lack of preparation for reading Thai literature prior to learning via SACM activities. The records of the fulfilled lesson plans showed that students in the research were sometimes not clear with regard to discussing Thai literature because they did not properly prepare for reading prior to beginning activities. For the future practical application of the SACM, a list of Thai literature textbooks should be given to students in the first teaching session. Additionally, prior to finishing every teaching session, students should be asked to read Thai literature according to the list for subsequent sessions. However, this timely advice given by the teacher gives no guarantees of improved results. The drawback of a lack of Thai literature reading preparation can be a result of several factors (Ketmankij, 2015). Sometimes students are inherently lazy, others lack a necessary interest in Thai literature, still others will try to avoid, if they can, the cost of purchasing copies of the literature (Dilshad et al., 2013). Then there is student reluctance for reading subject matter which they find disagreeable (Ahmed, 2016). Teachers should make a concerted effort to be sensitive towards these literature reading issues (Issa et al., 2012).

The research revealed an additional limitation which resulted from students' cultural backgrounds. Although B.Ed. students were able to complete the group tasks by following SACM activities, they did not have the confidence to share ideas with teacher. To reduce this difficulty, close teacher-student relationships are suggested to improve student confidence and promote proactive interactions between teacher and student (Hajovsky et al., 2017). In schools, teachers provide informal activity sessions allowing extended time with their students in order to '*get to know students better*' (Lee, 2012, p. 396). This pedagogical concept improves the relationships between adults and children within a school (Hagenauer and Volet, 2014). If such beneficial effects are to be realised in the university context, a like orientation activity could be offered to reduce the students' nervousness, anxiety and silence in classrooms (Yunus et al., 2011),

and make an in-depth improvement to proactive communications and interactions between teacher and student. Continuous good interpersonal relationships are required for students throughout their studies in a bachelor degree programme (Hagenauer and Volet, 2014).

7.5 Implications for further studies

Although suggestions about the application of SACM activities in classrooms are made in section 7.4, additional views are provided here for researchers in education and social sciences. Two topics are considered within this section: the application of the SACM within other subject areas and the challenges accompanying language translation in qualitative research.

This research, being conducted within the very specific area of Thai literature studies offered to Thai B.Ed. students (Thai major), does not imply that SACM activities will find suitable application in all or even any other subject areas within Thai education. However, since the SACM is now an honoured and valued teaching and learning concept there can be little doubt that other subject areas will prove to be fertile ground for further pedagogical research (Estes and Mintz, 2016). This particular 14 week investigation to discover the suitability or otherwise of SACM activities to aid the reading and appreciation of Thai literature could provide motivation for research into testing the suitability of applying the SACM in other subject areas such as history, folklore and politics (Johnson, 2015). The implication is that by no means all subject areas will be ideal for the application of the SACM, but important lessons learned from this research will still be relevant beyond here. It is worthy of note that, in addition to SACM activities, the key success of learning improvement was found to be a combination of teaching preparation and classroom management to achieve the learning objectives within each teaching session (Adams, 2018).

Language translation plays a vital role respecting qualitative data collection and analysis in cross-cultural research but the challenges associated with translation are '*rarely mentioned*' in research methodology (Choi et al., 2012, p. 654). In this particular research the translation of the Thai language into English and English into Thai proved to be challenging for the researcher but a linguistic expert reaffirmed its quality by checking the semantic relevance and accuracy of the translation of focus group transcripts and quotations (see section 7.3).

Following the aforementioned experience, three fundamental methods are now offered for verifying the trustworthiness of language translation: the use of a professional translator or translation service, the individual researcher working as a competent translator and/or an assessment of the translation by a research team.

To ensure the quality of language translation, a renowned professional translator or translation service can be employed to translate qualitative research data. This approach should be adopted when a researcher does not have the necessary expertise in language translation (Al-Amer et al., 2016). The downside to this is that it is costly and also there is the added necessary verification that the confidentiality ethics of research participants would be respected (Ho et al., 2019). In view of a researcher's intimate knowledge of a project methodology, then it is certainly not taboo that the individual researcher should attempt any necessary language translation, but the required expertise to do so competently is considerable (Nurjannah et al., 2014). Does the researcher have the necessary experience in the two languages to be able to fulfil that role effectively?

If it is imperative that the research results are translated by none other than the individual researcher then an assessment of the translation could, and perhaps should, be performed by a research team (Ho et al., 2019). Research team members can help each other to double-check the credibility of language translation within a particular

research. This approach might be seen as laborious and lacking the involvement of a professional translator (Al-Amer et al., 2016), but it is an option for non-bilingual researchers who have a degree of competence within the two or more languages and who appreciate the cultural differences (Kurniawan, 2018; Nurjannah et al., 2014).

7.6 Summary

This chapter has presented the research conclusion related to the research questions. In addressing Research Question One, the development of Thai B.Ed. students' problem-solving skills was found to be limited because of negative reasons in relation to internal and external factors. The internal factors consisted of the vagueness of the application of academic knowledge to solve everyday life problems, reluctance for a preferred learning style of working in a group and the boundaries with regard to Thai culture. The external factors comprised the educational system of Capital City University in Bangkok, Thailand and the lack of a variety of teaching methods within B.Ed. classrooms. In addressing Research Question Two, the application of the SACM supported the improvement of Thai B.Ed. students' problem-solving skills in relation to the process of analysing a problem and selecting and evaluating an appropriate solution. However, the SACM did not promote the appreciation of Thai literature and the application of Thai literature themes and ideas to everyday life situations. Additionally, the contribution to knowledge refers to SACM activities and constructivist theories, the internationalisation education policy and the preparation of B.Ed. students for their future career. Research limitations were considered with respect to the small size of the target population, the accuracy and reliability of the scores resulting from the problem-solving skills test, the conveying of ideas correctly through the translation of the Thai language into English and the data triangulation. Recommendations were given in connection with SACM activities and class size, the reading of Thai literature and the improvement of teacher-student relationship. Finally, further studies are recommended

in relation to the application of the SACM to other fields and the language translation in qualitative research.

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Appendix 1 The official permission letter for data collection

(1) The letter given by Nottingham Trent University

NTU Doctoral School

President of Capital City University
Bangkok
Thailand

Imogen Edwards
Nottingham Trent University Doctoral
School
50 Shakespeare Street
Nottingham
NG1 4FQ
Direct: +44 (0)115 848 8124
E-mail: blsphdecmin@ntu.ac.uk
Our ref: N06907D5

22 May 2017

Dear Sir/Madam

I am writing to confirm that Mr Petch Wijitnawin, date of birth: 10/10/1983, is fully enrolled as a Full-time student at Nottingham Trent University on the following programme:

Programme title: PhD Research (RSCH137)

Level: PG Research, Year 2

Awarding body: Nottingham Trent University, 50 Shakespeare Street, Nottingham, NG1 4FQ

Start date: 05 January 2016

End date: 04 January 2020

Expected Date of Graduation Ceremony: July 2020

I can confirm that this student is going to conduct his research project between 04 July and 04 October 2017.

Please do not hesitate to contact me if you require any further information.

Yours faithfully,



Imogen Edwards
Doctoral School

NTU Doctoral School
Nottingham Trent University
50 Shakespeare Street
Nottingham NG1 4FQ
Tel: +44 (0)115 941 8418
Email: doctoralschool@ntu.ac.uk
www.ntu.ac.uk/doctoralschool

NTU DOCTORAL SCHOOL
NOTTINGHAM TRENT UNIVERSITY

(2) The letter provided by Capital City University in Bangkok, Thailand

งานสารบรรณ กองกลาง
รับที่ 7005/3287
วันที่ 26 พ.ค. 2560
เวลา 10.00 น.

สศ.ศษ.
รับที่ 506
วันที่ 26 พ.ค. 60
เวลา 10.05 น.

งานศึกษา
รับที่ 975, 672
วันที่ 27 พ.ค. 60
เวลา 10.15 น.

งานธุรการ
กองกน.รับที่
รับที่ 3962/60
วันที่ 28 พ.ค. 60
เวลา 10.00 น.

บันทึกข้อความ

ส่วนราชการ ภาควิชาหลักสูตรและการสอน คณะศึกษาศาสตร์ โทร. ๐๒-๓๓๐-๘๓๓๘
ที่ ศส.๐๕๓๘.๐๙/๑๑๕๐ วันที่ 26 พฤษภาคม ๒๕๖๐

เรื่อง ขออนุญาตเดินทางกลับประเทศไทยเพื่อดำเนินการเก็บรวบรวมข้อมูลวิจัย ณ คณะศึกษาศาสตร์

เรียน อธิการบดี (ผ่านคณบดีคณะศึกษาศาสตร์)

ด้วยกระผม นายเพชร วิจิตรนาวัน พนักงานมหาวิทยาลัย ตำแหน่งอาจารย์ สาขาวิชาเอกภาษาไทย ภาควิชาหลักสูตรและการสอน คณะศึกษาศาสตร์ ได้ลาศึกษาต่อระดับปริญญาเอก ตั้งแต่วันที่ ๕ มกราคม พ.ศ. ๒๕๕๙ ณ มหาวิทยาลัย Nottingham Trent University ประเทศอังกฤษ นั้น

บัดนี้ กระผมได้ผ่านการพิจารณาโครงการวิจัย (Project Approval) ในหัวข้อ The evaluation of a theoretical Structured Academic Controversy Model to see its impact on the problem-solving skills of undergraduates undertaking a Thai literature course และจริยธรรมสำหรับวิจัย (Ethical Approval) ซึ่งเป็นข้อบังคับก่อนดำเนินการเก็บรวบรวมข้อมูลวิจัยของบัณฑิตวิทยาลัย (NTU Doctoral School) โดยได้รับการอนุญาตจากบัณฑิตวิทยาลัยฯ เรียบร้อยแล้ว รายละเอียดดังเอกสารแนบท้าย

ทั้งนี้ กระผมจะดำเนินการเก็บรวบรวมข้อมูลวิจัยกับนักศึกษาระดับปริญญาตรีที่ลงทะเบียนเรียนในกระบวนวิชา CTL3003 การพัฒนาวิชาชีพครู ภาค ๑/๒๕๖๐ ตั้งแต่วันที่ ๖ กรกฎาคม ถึง ๔ ตุลาคม พ.ศ. ๒๕๖๐ รวม ๑๔ สัปดาห์ และได้ขออนุญาตจากอาจารย์บงกช ทองเอี่ยม ผู้รับผิดชอบกระบวนวิชาดังกล่าวในเบื้องต้นแล้ว

ในการนี้ จึงขออนุญาตเดินทางกลับประเทศไทยเพื่อดำเนินการเก็บรวบรวมข้อมูลวิจัยในกระบวนวิชาดังกล่าว ณ คณะศึกษาศาสตร์ มหาวิทยาลัยรามคำแหง ตามช่วงเวลาข้างต้น โดยจะออกเดินทางวันที่ ๔ กรกฎาคม พ.ศ. ๒๕๖๐ และจะเดินทางกลับไปเพื่อศึกษาต่อ ณ เมือง Nottingham ประเทศอังกฤษหลังสิ้นสุดการเก็บรวบรวมข้อมูลวิจัยในวันที่ ๔ ตุลาคม พ.ศ. ๒๕๖๐

จึงเรียนมาเพื่อโปรดพิจารณา

เรียน ค.ค.ช.
เพื่อโปรดพิจารณา / ส.อ.อ.อ.อ.อ.
โปรดอนุญาต

นายเพชร วิจิตรนาวัน
(นายเพชร วิจิตรนาวัน)
อาจารย์ประจำภาควิชาหลักสูตรและการสอน

เรียน อธิการบดี
เพื่อโปรดพิจารณาอนุญาต
ผู้ช่วยศาสตราจารย์ทิพย์ ทาสาณศรี
คณบดีคณะศึกษาศาสตร์
๒๕ พ.ค. ๒๕๖๐

อาจารย์เยาวพรรณ ทิมทอง,
หัวหน้าภาควิชาหลักสูตรและการสอน

เรียน อธิการบดี (ผ่าน ผอ. กจ., TSC-วปอ.)
เพื่อโปรดพิจารณาอนุมัติ

ส.ท.น. วิโรจน์ ทวี
(นางศรีวิญา วิโรจน์มิตร)
หัวหน้างานฝึกอบรม
๒๕ พ.ค. ๖๐

(นายวิรัตน์ พันธุ์นรา)
ผู้อำนวยการกองการเจ้าหน้าที่
๒๕ พ.ค. ๖๐

(ผู้ช่วยศาสตราจารย์ ดร.บุญชาติ ทองประเสริฐ)
รองอธิการบดีฝ่ายวิชาการและประกันคุณภาพ
๒๕ พ.ค. ๒๕๖๐

อนุญาต

สม. น.
(ผู้ช่วยศาสตราจารย์ ดร. วิศักดิ์ อามเจริญทรัพย์)
อธิการบดีมหาวิทยาลัยราชภัฏวชิราวุธ
๒๕ พ.ค. ๖๐

Appendix 2 Samples of lesson plans

(1) Lesson plan for the Experimental group (learning by following the SACM)

Unit:	2. Savitri
Topic:	Author's objective, background, historical contexts and ideas of Savitri (Week 3)
Class:	40 undergraduate students of the B.Ed. programme (Thai major)
Time Available:	100 minutes
Date:

Learning Outcomes of TQF 1 (Thai major): K 2.2.1, K 2.2.2 and C

Learning Outcomes of EDU.RU. (Thai major): K 2.1 (1), (9) and C 3.1 (2)

Aims

1. To understand author's objective and background of Savitri.
2. To analyse theme and ideas of Savitri.
3. To apply ideas of Savitri for the problem resolution.

Objectives

1. To identify the author's objective.
2. To explain the relation between Mahābhārata and Savitri.
3. To analyse poems of Savitri.
4. To debate theme and ideas of Savitri within a group.
5. To adapt ideas of Savitri for the problem resolution.

Contents

1. The author's objective
2. Background and historical contexts of Savitri.
3. Theme: using intellectual and morality can solve problems.

4. Ideas of Savitri (beauty and knowledge, planning, submissive woman and family relationship)

Materials

1. Power Point slides (Appendix A)
2. Websites of Thai language and literature (Appendix B)
3. Literature: Savitri
4. Worksheets
 - 4.1 The group worksheet 1 (Appendix C)
 - 4.2 The group worksheet 2 (Appendix D)
 - 4.3 The individual worksheet (Appendix E)

Procedures

Step of the Model	Activities
<p>1. Students prepare their positions. (15-20 minutes)</p>	<p>1.1 Teacher tells students about the lesson topic.</p> <p>1.2 Students are divided into a group of four members who are consequently student A, B, C and D, ten groups. Each group consists of different members in terms of gender, religion (Buddhism and Islam) and regions of Thailand e.g. Northern, Southern and Central regions. (Members within group are different from week 2.)</p> <p>1.3 Teacher explains the background of Mahābhārata and the influence of Indian epics in Thai literature.</p> <p>1.4 Students identify the author's objective. They also answer questions about the background of Mahābhārata and Thai literature.</p> <p><i>Questions</i></p> <ol style="list-style-type: none"> 1) What can ideas of Indian literature be seen in Thai literature? 2) Why can we see the influence of Indian epics in Thai literature? 3) How does Mahābhārata link with the literature of King Rama sixth?

Step of the Model	Activities
	<p>1.5 Each group chooses a topic for discussion and debate. Student A and B are the one team, as student C and D are the opposite team. Websites of Thai language and literature (Appendix B) are advised.</p> <p><i>Topics for discussion and debate (Appendix A)</i></p> <ol style="list-style-type: none"> 1) Will you choose a girlfriend from her beauty or intelligence? (see pp.77, 82 and 88 etc.) 2) Can we succeed without any plan? (see pp. 60, 68 and 88 etc.) 3) Should a wife obey her husband? (see pp. 60, 83 and 86 etc.) 4) Is nuclear family better than extended family? (see pp. 68, 82-83 and 91-92 etc.)
<p>2. Students present and advocate their position. (15 minutes)</p>	<p>2.1 All groups match word and meaning items of Savitri in the worksheet 1 part 1 (Appendix C). Teacher gives the worksheet's answers, then the teacher asks a few students to explain the relation between Mahābhārata and Savitri.</p> <p><i>Questions</i></p> <ol style="list-style-type: none"> 1) How does Savitri link with Mahābhārata? 2) Why did King Rama sixth write two versions of Savitri which consist of translation and play? 3) If we do not know about the background of Mahābhārata, can we understand Savitri in terms of King Rama sixth's literature? 4) What is the theme of Savitri? <p>2.2 After selecting a topic, each group interprets and analyses poems of Savitri in the worksheet 1 part 2 (Appendix C) which consists ideas of Savitri. Teacher gives the worksheet's answers.</p> <p>2.3 Student A and B are assigned to agree with their group topic, as student C and D are assigned to contrast with. Students answer questions which link with the interpretation of theme and their argument.</p>

Step of the Model	Activities
	<p>Questions</p> <ol style="list-style-type: none"> 1) How do you understand the theme and your topic? 2) What ideas of these poems can match your argument and claims? 3) Can you find a contrasting idea? 4) Do you have the enough evidence to support your claims?
3. Open discussion and rebuttals. (10 minutes)	<p>3.1 Both teams write their first argument, claims and supportive reasons down the worksheet 2 part 1 (Appendix D).</p> <p>3.2 Student A and B present their claim and reasons which agree with their topic, then student C and D present the opposing claim. Both teams discuss and debate politely and reasonably.</p>
4. Reverse position. (10 minutes)	<p>4.1 Both teams interchange their position. Student C and D agree with the topic, as student A and B present their contrasting claim. These teams write their second argument, claims and supportive reasons down the worksheet 2 part 2 (Appendix D).</p> <p>4.2 Student C and D start to discuss, then student A and B present their opposing claim. Students interpret the poems of Savitri (Appendix A). They also compare or contrast them with their topic.</p> <p style="text-align: center;"><i>Poems of Savitri</i></p> <p style="text-align: center;">“The death can fall but once ; a daughter can be given away but once ; and once only can a person say, I give aivay !¹”</p> <p style="text-align: right;">(Roy, 1962, p.627)</p> <p style="text-align: center;">“Savitri said, 'Thou needst not be sorry, O father ! This vow I shall be able to observe ! I have for certain undertaken this task with perseverance; and perseverance is the cause of the successful observance of vows.²”</p> <p style="text-align: right;">(Roy, 1962, p.629)</p>
5. Synthesize and integrate the best evidence into a joint position. (10-15 minutes)	<p>5.1 Student A and C present ideas of both arguments from the step 3 and 4.</p> <p>5.2 Student B and D ask to check these ideas with their colleagues (student A and B).</p>

Step of the Model	Activities
	<p><i>Questions</i></p> <ol style="list-style-type: none"> 1) How do these arguments link with the topic? 2) Is supportive evidence clear and logical? 3) What are weaknesses of these arguments? <p>5.3 Students discuss to create the new idea which can be a consensus. Then, they write it down the worksheet 2 part 3 (Appendix D).</p>
<p>6. Present the group synthesis. (15 minutes)</p>	<p>6.1 Ten groups present their consensus and give supportive reasons.</p> <p>6.2 Students share their opinions with each other. They also answer questions.</p> <p><i>Questions</i></p> <ol style="list-style-type: none"> 1) How does your group consensus link with the theme of Savitri? 2) What is less useful ideas of Savitri for the consensus? 3) What is the definition of “beautiful woman” in Savitri ?
<p>7. Group processing of the controversy and participation of members. (10-15 minutes)</p>	<p>7.1 Students discuss strengths and weaknesses of these activities. They also share the success and difficulty of their group resolution. Students also answer questions from their experiences.</p> <p><i>Questions</i></p> <ol style="list-style-type: none"> 1) How can you select the supportive evidence for your debate? 2) What did you do during the conflict within your group? 3) How did you create a group consensus? <p>7.2 Students apply theme or ideas of Savitri for the problem resolution in the individual worksheet (Appendix E).</p>

Assessment

Using matching items, true or false quiz and short essay to check the student learning in terms of group and individual assessment. (Please see Appendix C, D and E)

The Teaching Record

What did I find that my students were or were not able to do in this lesson?	
What was the problem?	How could/will I solve the problem?

The Group Observation Record

Group No.	Student ID	
Lesson Topic	Date	Time

Instruction Please circle an appropriate number of items (1 = very little, 2 = a little, 3 = quite a lot, 4 = a lot, 5 = a very great deal)

1. Content

- 1.1 Students answer questions correctly and reasonably. 1 2 3 4 5
- 1.2 Students wait for correct answers from the teacher. 1 2 3 4 5
- 1.3 Students use dictionary to translate words and idioms. 1 2 3 4 5
- 1.4 Students misunderstand ideas of the literature. 1 2 3 4 5

2. Tasks

- 2.1 Worksheets are finished on time. 1 2 3 4 5
- 2.2 Worksheets are proved by all group members. 1 2 3 4 5
- 2.3 Some parts of these worksheets are incomplete. 1 2 3 4 5
- 2.4 Answers in these worksheets are repeatedly amended. 1 2 3 4 5

3. Students and teacher interaction

- 3.1 Students listen attentively to all instructions. 1 2 3 4 5
- 3.2 The teacher is asked when students want to be clearer. 1 2 3 4 5
- 3.3 Students are sleepy during lecture. 1 2 3 4 5
- 3.4 Students argue with the teacher confidently and reasonably. 1 2 3 4 5

4. Group participation

- 4.1 Students listen to different ideas with each other. 1 2 3 4 5
- 4.2 All group members create a consensus or a solution. 1 2 3 4 5
- 4.3 Silence and distraction can be seen during discussion and debate. 1 2 3 4 5
- 4.4 A student dominates other group members. 1 2 3 4 5
- 4.5 Impolite speaking can be seen during conflict resolution. 1 2 3 4 5
- 4.6 Presentation is prepared by all group members. 1 2 3 4 5
- 4.7 Students share their ideas and experiences with other groups. 1 2 3 4 5

Further comments

.....

.....

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.....

.....

Adapted from:

Cohen, L., Manion, L., and Morrison, K., 2004. *A guide to teaching practice*. 5th ed. London: RoutledgeFalmer.

Jaques, D. and Salmon, G., 2007. *Learning in groups a handbook for face to face and online environments*. 4th ed. London: Routledge.

Appendix A

Power Point slides (see attached file)

Appendix B

Websites of Thai language and literature

Full Text of Savitri in Mahābhārata (English version)

<http://holybooks.lichtenbergpress.netdna-cdn.com/wp-content/uploads/Mahabharata-VOL-3.pdf>

Full Text of Savitri (Translating Thai version)

<http://www.reurnthai.com/wiki/สรวิตี>

Thai dictionary

<http://www.royin.go.th/dictionary/>

Thai literature

http://www.arts.chula.ac.th/~complit/thesis/thesis_th/2535.htm

http://www.bejaratana-suvadhana.org/suva_page008.html

<http://www.surdi.su.ac.th/en/2014/07/his-majesty-king-mongkutkiao-or-king-rama-vi/>

Appendix C

The Group Worksheet 1

Group No.....

Student's name.....ID.....

Student's name.....ID.....

Student's name.....ID.....

Student's name.....ID.....

Part 1

Aim

1. To understand the author's objective and background of Savitri.

Instruction Please write the letter of the correct match below to each item. (10 marks)

- | | | | |
|------------------|------------------------|--------------------|------------------------|
| a. Draupadi | b. Translation version | c. Queen Suwattana | d. Thai opera |
| e. Feminism | f. C.E.1924 | g. Hindu goddess | h. Dialogue poems |
| i. Thai cultures | j. Vajirayana library | k. Sanskrit epics | l. Buddhist principles |

.....1. The name of Brahma's wife which becomes the name of Savitri princess.

.....2. Savitri, which is Thai version, was written to give the king's wife.

.....3. The woman, who is compared with Savitri, is in Mahābhārata.

.....4. The influence of famous Indian literature, which consists of Mahābhārata and Ramayana, can be found in Thai literature.

.....5. Although the setting and historical background of Savitri are Indian culture, there are traditional Thai perspectives in this literature.

.....6. The Western idea, which is unlikely seen as Thai literature in the early Rattanakosin era (1782-1851 C.E.), can be found in Savitri.

.....7. Savitri was created to be a Thai play, which probably compares with a Western musical play.

.....8. The one of author's objectives which is written to describe backgrounds and details of Savitri from English version.

.....9. The writing style in Savitri which probably comes from Western plays.

.....10. Savitri had been written about one year before the author died.

Part 2

Aim

2. To analyse theme and ideas of Savitri.

Instruction Please interpret and analyse poems of Savitri by choosing True (T) or False (F) of items. Please answer within your group topic. (8 marks for a topic)

Topic 1: Will you choose a girlfriend from her beauty or intelligence? (1.1-1.8)

(the question 1.1-1.4)

“And in due time, that damsel attained her puberty. And beholding that graceful maiden of slender waist and ample hips, and resembling a golden image, people thought, 'We have received a goddess.' And overpowered by her energy, none could wed that girl of eyes like lotus-leaves, and possessed of a burning splendour.”³

(Roy, 1962, p.625)

T or F 1.1 The girl is more beautiful than smart. (*Interpretation*)

T or F 1.2 “A golden image (line 2) refers to the Goddess who is Brahma’s wife”.
(*Interpretation*)

T or F 1.3 The girl contrasts with “beauty without grace is a violet without smell.”⁴(*Analysis*)

T or F 1.4 The tone of this poem is complimentary. (*Analysis*)

(the question 1.5-1.8)

“By virtue of my asceticism, of my regard for my superiors, of my affection for my lord, of my observance of vows, as well as of thy favour, my course is unimpeded.”⁵

(Roy, 1962, p.631)

T or F 1.5 “My asceticism” (line 1) can refer to Savitri’s endeavor. (*Interpretation*)

T or F 1.6 “My lord” (line 1) does not relate to Satyavan (Savitri’s husband).
(*Interpretation*)

T or F 1.7 A respectful tone can be seen in the poem. (*Analysis*)

T or F 1.8 This poem is comparable “to call a spade a spade.”⁶ (*Analysis*)

Topic 2: Can we succeed without any plan? (2.1-2.8)

(the question 2.1-2.4)

“And as the words that had been spoken by Narada were ever present in the mind of Savitri, she had counted the days as they passed. And having ascertained that her husband would die on the fourth day following, the damsel fasted day and night, observing the Triratna vow.”⁷

(Roy, 1962, p.629)

T or F 2.1 Savitri believes “the words” (line 1) of Narada. (*Interpretation*)

T or F 2.2 Savitri intends to live with her husband forever. (*Interpretation*)

T or F 2.3 If Savitri starts eating now, her husband will die. (*Analysis*)

T or F 2.4 The structure of cause and effect can be seen in this poem. (*Analysis*)

(the question 2.5-2.8)

“And that helpless lady, thinking of Narada's words, began to calculate the (appointed) division of the day, the hour, and the moment. The next moment she saw a person clad in red attire with his head decked with a diadem. And his body was of large proportions and effulgent as the sun.”⁸

(Roy, 1962, p.631)

T or F 2.5 “The sun” (line 3) can refer to a strong power. (*Interpretation*)

T or F 2.6 . Due to her calculation, Savitri can assume that “a person” (line 2) is the Yama. (*Interpretation*)

T or F 2.7 Narada’s words (line 1) can be compared with “a long shot in the dark.”⁹
(*Analysis*)

T or F 2.8 The frightened and fearful tones can be seen in this poem. (*Analysis*)

Topic 3: Should a wife obey her husband? (3.1-3.8)

(the question 3.1-3.4)

And she pleased her husband by her honied speeches, her skill in every kind of work, the evenness of her temper, and by the indications of her love in private.¹⁰

(Roy, 1962, p.628)

T or F 3.1 “Honied speeches” (line 1) refers to beautiful and polite words. (*Interpretation*)

T or F 3.2 Savitri is probably an aggressive wife. (*Interpretation*)

T or F 3.3 The author seems to admire Savitri rather than other women. *(Analysis)*

T or F 3.4 Savitri looks like “It’s a sad house where the hen crows louder than the cock.¹¹”*(Analysis)*

(the question 3.5-3.8)

“Savitri replied, “Whither my husband is being carried, or whither he goeth of his own accord, I will follow him thither. This is the eternal custom.¹²”

(Roy, 1962, p.631)

T or F 3.5 Due to “the eternal custom” (line 2), a husband should care about his wife.

(Interpretation)

T or F 3.6 Satyavan is the whole life of Savitri. *(Interpretation)*

T or F 3.7 Savitri seems to prefer the traditional submissive idea. *(Analysis)*

T or F 3.8 The tone in this poem is adoring and respectful. *(Analysis)*

Topic 4: Is nuclear family better than extended family? (4.1-4.8)

(the question 4.1-4.4)

And she gratified her mother-in-law by attending to her person and by covering her with robes and ornaments. And she gratified her father-in-law by worshipping him as a god and controlling her speech.¹³

(Roy, 1962, p.628)

T or F 4.1 Savitri has to be quiet during living with her mother-in-law. *(Interpretation)*

T or F 4.2 Savitri loves her husband, so she happily cares about the parents of her husband. *(Interpretation)*

T or F 4.3 This poem is comparable to “Next the God, the parents.¹⁴” *(Analysis)*

T or F 4.4 A sympathetic tone can be seen in the poem. *(Analysis)*

(the question 4.5-4.8)

“One night before this, the old couple, who love me dearly, wept from deep sorrow and said unto me, 'Deprived of thee, O son, we cannot live for even a moment. As long as thou livest, so long, surely, we also will live. Thou art the crutch of these blind ones; on thee doth perpetuity of our race depend.¹⁵”

(Roy, 1962, p.635)

T or F 4.5 “The crutch” (line 3) refers to Satyvan and Savitri. (*Interpretation*)

T or F 4.6 Satyvan’s parents love their son so much. (*Interpretation*)

T or F 4.7 This poem can compared with “apple of one’s eyes.¹⁶” (*Analysis*)

T or F 4.8 A sulky tone can be seen in this poem. (*Analysis*)

References

Chaiphundham, S., 1994. *Learning and comparing Thai proverbs with English idioms and proverbs*. Bangkok: Tondham.

Phokasumrit, P., 2009. Idioms and proverbs: linguistic forms and English to Thai translation techniques. *Journal of NIDA language and communication*, 14 (15), pp. 17-37.

Roy, P. C., 1962. *The Mahabharata of Krishana-Dwaipayana Vyasa translated into English prose from the original Sanskrit text*. 2nd ed. Calcutta: Oriental Publishing.

Vajiravudh, H.M. King., 2011. *Savitri*. Nontaburi: Wisdom.

Assessment Criteria

Aim	High	Middle	Less	Fail
Aim 1 (10 marks)	9-10 correct answers	6-8 correct answers	3-5 correct answers	1-2 correct answers
Aim 2 (8 marks)	7-8 correct answers	5-6 correct answers	3-4 correct answers	1-2 correct answers

Answers

Part 1

- | | | | | |
|------|------|------|------|-------|
| 1. g | 2. c | 3. a | 4. k | 5. l |
| 6. e | 7. d | 8. b | 9. h | 10. f |

Part 2

Topic 1

- | | | | |
|-------|-------|-------|-------|
| 1.1 F | 1.2 F | 1.3 F | 1.4 T |
| 1.5 T | 1.6 T | 1.7 T | 1.8 F |

Topic 2

- | | | | |
|-------|-------|-------|-------|
| 2.1 T | 2.2 F | 2.3 F | 2.4 T |
| 2.5 T | 2.6 F | 2.7 F | 2.8 T |

Topic 3

- | | | | |
|-------|-------|-------|-------|
| 3.1 T | 3.2 F | 3.3 F | 3.4 T |
| 3.5 F | 3.6 F | 3.7 T | 3.8 T |

Topic 4

- | | | | |
|-------|-------|-------|-------|
| 4.1 F | 4.2 F | 4.3 T | 4.4 F |
| 4.5 F | 4.6 T | 4.7 T | 4.8 F |

Appendix D

The Group Worksheet 2

Group No.....
Student's name.....ID.....
Student's name.....ID.....
Student's name.....ID.....
Student's name.....ID.....

Aims

2. To analyse theme and ideas of Savitri. (Part 1 and 2)
3. To apply ideas of Savitri for the problem resolution. (Part 3)

Instruction Please write your group topic, claims and supportive evidence for discussion and debate. You must choose some poems in Savitri to support your claims in Part One and Two. Please write your group consensus in Part Three. (30 marks)

Topic

Part 1: Argument 1

1.1 Student A and B (Agree)	1.2 Student C and D (Disagree)
1.1.1 Claim.....(1)	1.2.1 Claim.....(4)
1.1.2 Evidence	1.2.2 Evidence
1) Reason (s).....	1) Reason (s).....
.....
..... (2)(5)
2) Poem (s).....	2) Poem (s).....
.....
.....
.....
.....(3)(6)

Part 2: Argument 2

<p>2.1 Student A and B (Disagree)</p> <p>2.1.1 Claim.....(7)</p> <p>2.1.2 Evidence</p> <p>1) Reason (s).....(8)</p> <p>.....(8)</p> <p>2) Poem (s).....(9)</p> <p>.....(9)</p>	<p>2.2 Student C and D (Agree)</p> <p>2.2.1 Claim.....(10)</p> <p>2.2.2 Evidence</p> <p>1) Reason (s).....(11)</p> <p>.....(11)</p> <p>2) Poem (s).....(12)</p> <p>.....(12)</p>
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Part 3: Group consensus

		3.1 Disagreeable ideas	
1).....(1)	1).....(4)		
2).....(2)	2).....(5)		
3).....(3)	3).....(6)		
		3.2 Agreeable ideas	



Consensus

.....(7)

Reason (s).....(8)

.....(8)

Assessment Checklist

Aim	Part	Topic	Marks (30)	Result (✓)
1	1	1. The responses address six items.	2	
		2. Two claims are created to discuss.	2	
		3. The reason is given to support each claim.	2	
		4. Reasons link with an idea in Savitri.	2	
		5. The poem of Savitri is given to support each claim.	2	
	2	6. The responses address six items.	2	
		7. Two claims are created to discuss.	2	
		8. The reason is given to support each claim.	2	
		9. Reasons link with an idea in Savitri.	2	
		10. The poem of Savitri, which is different from 5, is given to support each claim.	2	
2	3	11. The responses address eight items.	2	
		12. Agreeable and disagreeable ideas are summarised.	2	
		13. The group consensus (solution) is created.	2	
		14. The reason is given to support the consensus.	2	
		15. The reason links with an idea in Savitri.	2	
Total				

Appendix E

The Individual Worksheet

Student's name.....ID.....

Aim

3. To apply ideas of Savitri for the problem resolution.

Instruction Please read the problem posed and give a solution to the question. You must choose a poem in Savitri which may be different from your group discussion to support your opinions.

The situation

The serious final test is coming next two weeks, so you would like to receive a high grade level such as A or B+. Unfortunately, the time seems to limit because you have to find a new apartment and move out on the same date of the final test. Moreover, uncle Bob, who lives in Northern Thailand, will visit you for three days before the final test. If you cannot deny any situations, how will you do for next two weeks?

1. What is the problem?	1.1.....(1)
2. What is the cause of this problem?	2.1.....(2)
3. What is my solution?	3.1.....(3)
	3.2...(the poem which supports your idea).....(4) ...
4. How can I solve this problem?	4.1.....(5)
	4.2...(the poem which supports your idea).....(6)

Assessment Checklist

Aim	Topic	Marks (14)	Result (✓)
2	1. The responses address six items.	2	
	2. The problem is identified.	2	
	3. The problem is reasonably analysed.	2	
	4. The solution is created.	2	
	5. The reason is given to support the solution.	2	
	6. An idea of Savitri links with the reason.	2	
	7. A poem in Savitri is given to support the solution.	2	
Total			

Notes

- ¹ “อันลูกบาศก์จะตกได้ก็เพียงครั้งเดียว, บุตรีก็ยกให้เขาได้เพียงครั้งเดียว, และคนเราจะพูดว่า ‘ฉันยกให้’ ดังนี้ก็ได้แต่เพียงครั้งเดียวเท่านั้น.”

(H.M. King Vajiravudh, 2011, p. 15)

โอ้ว่าบิดาบังเกิดเกษ
ลูกบาศก์ตกได้เพียงหนเดียวไชรั
อนึ่งล้นวาจาว่ายกให้

ทรงเดชดำรงเช่นนั้นได้
ทั้งบุตรียกให้ได้หนึ่งครั้ง
ก็ได้เพียงครั้งเดียวเป็นที่ตั้ง

(H.M. King Vajiravudh, 2011, p. 56)

- ² นางสาวตรีทิพย์กล่าวว่า, --“พระบิดายำทรงพระวิศกเลย. กระทบมฉันจะถือชุดครั้งนี้ให้จงได้. กระทบมฉันได้ตั้งใจเริ่มกิจนี้แล้วด้วยความเพียร; และความเพียรนั้นเทียว เป็นเหตุแห่งการบำเพ็ญตบะทั้งปวงให้สำเร็จได้.”

(H.M. King Vajiravudh, 2011, p. 19)

อันว่าการพลีที่ประจำ
หม่อมฉันจึงมาเฝ้าพระภูบาล
หม่อมฉันได้ตั้งใจในตบะ
ขององค์พระบิตุเรศและมารดร
.....
ก็ไหนไหนได้ทันมาสามวัน
ขอรอไว้จนสิ้นทิวากาล

เวลาเข้าได้กระทำทุกสถาน
และพระแม่ขอประทานซึ่งพระพร
ไม่เลยละ สำเร็จมีย่อหย่อน
ประทานพรเพื่อสุขสวัสดิ์
.....
กระทบมฉันยังไม่อยากอาหาร
ตั้งจิตอธิษฐานไว้เช่นนี้

(H.M. King Vajiravudh, 2011, pp. 67-68)

- ³ และเมื่อถึงกาลอันควร, ราชนารีนั้นก็ทรงถึงซึ่งวัยเปนนาง และเมื่อได้เห็นนางครุณีงามกอปรด้วย บั้นพระองค์อันเรียวและพระ โสณิอาบ, และดูประคองรูปอันหล่อด้วยทอง, ชนทั้งหลายต่างกล่าวว่า, “เราได้ นางฟ้ามาไว้เทียวหนอ,” และเพราะเหตุที่หาผู้ใดจะทนศักดิ์ของนางนั้นมิได้, จึงไม่มีผู้ใดได้เป็นภรรยาของ นางผู้มีตาจุกคอกบัว, และผู้มีสังข์ยิง.

(H.M. King Vajiravudh, 2011, p. 10)

- ⁴ “สวยแต่รูปจวบไม่หอม” (Phokasumrit, 2009, p. 7)

⁵ ด้วยอำนาจแห่งคบะของกระหม่อมฉัน, แห่งเชษฐาประจายนะธรรมของกระหม่อมฉัน, แห่งศีลของกระหม่อมฉัน. อีกทั้งพระการุณยภาพของพระองค์, จะมีสิ่งใดก็คดขวางในปฏิปทาของกระหม่อมฉันก็หา มิได้.

(H.M. King Vajiravudh, 2011, p. 25)

ด้วยอำนาจแข็งแรงแห่งคบะ
อีกพระองค์กรุณาแก่ข้าไท
อันผู้ใดไร้ธรรมเป็นเนืองนิตย์
ปฏิบัติพร้อมพรังคังครุสอน

และสัมมาคารวะต่อผู้ใหญ่
คงไม่มีสิ่งใดกีดขวางจร
และรู้จักข่มจิตไม่ย่อหย่อน
คงไม่ต้องอนาทรและร้อนใจ

(H.M. King Vajiravudh, 2011, p. 82)

⁶ “พุดจางวานผ่าซาก” (Phokasumrit, 2009, p. 22)

⁷ และเพราะเหตุที่ถ้อยคำซึ่งพระนารทกล่าวได้ฝังอยู่เป็นนิตย์ในจิตของนางสาวตรี, นางนั้นจึงนับวันที่ล่วงไปนั้นทุกวัน. และเมื่อนางคำนวณได้แน่แล้วว่าต่อไปอีกสี่วันพระภรรดาจะสิ้นพระชนม์. นางจึงอดอาหารทั้งกลางวันกลางคืนบำเพ็ญตบะระหัดระหัด.

(H.M. King Vajiravudh, 2011, pp. 18-19)

อนิจจาคิดมาน่าใจหาย
จนจวนวันจะถึงหนึ่งปี
ว่าองค์พระภรรดาผู้ย้าจิต
อนิจจาปนกรรมที่ทำไว้
อุดส่าห์บ่มคบะทรมาณ
อดอาหารนานาสามราตรี

ได้มีสุขสบายอยู่เต็มที
โอ้วันนี้ถึงวันสำคัญไว้
จะต้องปลดปลงปลิดชีพตักษัย
จึงมาต้องทุกข์ใหญ่ในครานี้
เพื่อเทวมหาศาลโปรดเกศี
ขอผลจงได้มีสมจิตเรา

(H.M. King Vajiravudh, 2011, pp. 59-60)

⁸ และนางผู้หมัดทางคิด, รำพึงถึงคำของพระนารท, ก็เริ่มคำนวณส่วนวัน, ยาม, และขณะ. อีกครู่หนึ่งนางก็เห็นบุรุษผู้หนึ่งซึ่งแต่งกายสีแดง, เสียวเกล้าแต่งด้วยมกุฏ. และกายนั้นมีส่วนลำสันและรุ่งโรจน์ราวกับพระอาทิตย์.

(H.M. King Vajiravudh, 2011, p. 23)

⁹ “เตาสุ่ม” (Phokasumrit, 2009, p. 28)

10 และนางทำให้พระภรรดาพอพระหฤทัยด้วยมธุรสวาจา, ด้วยความซำนึซำนญูในการงานทุกอย่าง, ด้วยความไม่โกรธ, และ โดยแสดงความเสนหาในที่รโหฐาน.

(H.M. King Vajiravudh, 2011, p. 18)

11 “สามีเป็นข้างเทำหน้า ภรรยาเป็นข้างเทำหลัง” (Chaiphumdham, 1994, p. 117)

12 สาวิตรีทูลตอบว่า,--“พระภรรดาจะถูกพาไป ณ หนใด, หรือเขาจะเสด็จเอง ณ หนใดก็ดี, กระทบมัจฉันจะขอตามเสด็จไป ณ หนนั้น. นี้เป็นธรรมเนียมอันยังยืน.”

(H.M. King Vajiravudh, 2011, p. 25)

พระภรรดาถูกพาไปหนไหน
หรือเสด็จไปเองในมรรคา

หม่อมฉันขอตามไปพระเจ้าข้า
ข้าก็จะขอตามเสด็จไป

(H.M. King Vajiravudh, 2011, p. 82)

13 และนางได้ทำให้พระมารดาของพระสวามีพอพระหฤทัย โดยปฏิบัติรับใช้และจัดภูษาและอาภรณ์ให้ทรง. และนางทำให้พระบิดาของพระสวามีพอพระหฤทัยโดยกระทำสักการเหมือนอย่างบุชาทวดและสำรวมในวจา,

(H.M. King Vajiravudh, 2011, p. 18)

14 “มารดาบิดาเป็นพรหมของบุตร” (Chaiphumdham, 1994, p. 88)

15 เมื่อก่อนนี้คืนหนึ่ง, ทั้งสองพระองค์ผู้ทรงมีพระเมตตาต่อพี่ยังนัก ได้ทรงพระกันแสงและคริสต์แก่พี่ว่า, ‘ลูกเอย, ถ้าเสียลูกไปแล้ว, เราทั้งสองจะครองชีวิตต่อไปมิได้อีกแม้ขณะเดียว. ลูกมีชีวิตอยู่คราบใด, เราทั้งสองก็จะมีชีวิตอยู่ได้คราบนั้นเปนนั่นละ. ลูกเป็นธำรพระกรแห่งเราผู้ตามิด; ความยังยืนแห่งวงศ์สกุลของเราจะมีได้ก็แต่โดยลูกเท่านั้น.

(H.M. King Vajiravudh, 2011, p. 34)

อันความปวดคุดค่อยถอยลงแล้ว
พี่คิดถึงพระชนกชนนี
แต่ไรไรสองไท้เคยห้วงพี่
บางที่เคยเสด็จเตรีคตามหา

นะน้องแก้ววันนิคมารศรี
โอ้ปานนี้พระจะคอยตัวพี่ยา
ถ้ามานานในที่กลางถิ่นป่า
เพราะท่านมีพี่ยาอยู่คนเดียว

พระจิ้งห้วงราวดวงหทัยแท้
ที่เหมือนธารพระกรอยู่อันเดียว
ทั้งสององค์ก็ทรงชราแล้ว
แม้พระองค์ทั้งสองต้องมีภัย

ยามห่างองค์มีแต่ฟ้าแลเหลิยว
พระเปล่าเปลี่ยวที่สุดยามบุตรไกล
เสียลูกแก้วไหนพระจะทนได้
พี่ก็ไม่ยอมอยู่ดูหน้าคน
(H.M. King Vajiravudh, 2011, pp. 91-92)

¹⁶ “แก้วตาดวงใจ” (Phokasumrit, 2009, p. 34)

(2) Lesson plan for the Control group (learning following conventional instruction)

Unit:	2. Savitri
Topic:	Author's objective, background, historical contexts and ideas of Savitri (Week 3)
Class:	40 undergraduate students of RU education programme (Thai major)
Time Available:	100 minutes
Date:

Learning Outcomes of TQF 1 (Thai major): K 2.2.1, K 2.2.2 and C

Learning Outcomes of EDU.RU. (Thai major): K 2.1 (1), (9) and C 3.1 (2)

Aims

1. To understand the author's objective and background of Savitri.
2. To analyse theme and ideas of Savitri.
3. To apply ideas of Savitri for the problem resolution.

Objectives

1. To identify the author's objective.
2. To explain the relation between Mahābhārata and Savitri.
3. To summarise poems in Savitri.
4. To analyse theme and ideas of Savitri.
5. To adapt ideas of Savitri for the problem resolution.

Contents

1. The author's objective
2. Background and historical contexts of Savitri

3. Theme: using intellectual and morality can solve problems.
4. Ideas of Savitri (beauty and knowledge, planning, submissive woman and family relationship)

Materials

1. Power Point slides (Appendix A)
2. Websites of Thai language and literature (Appendix B)
3. Literature: Klong Loganit
4. Worksheets
 - 4.1 The individual worksheet (Appendix C)
 - 4.2 The group worksheet (Appendix D)

Procedures

Step of Teaching	Activities
1. Introduction (5 minutes)	<p>1.1 Teacher shows the picture of Miss Universe from Thailand (Ms. Apatsara Hongsakul, 1965 and Ms. Porntip Hirunkanok, 1988) via Power Point slides (Appendix A), then the teacher asks students to link with the lesson.</p> <p style="text-align: center;"><i>Questions</i></p> <ol style="list-style-type: none"> 1) Could you tell me who they are? 2) Why did they become Miss Universe? 3) What does a literature mention about a beautiful woman and intelligence?
2. Teaching (70-85 minutes)	<p>2.1 Teacher explains the background of Mahābhārata and the influence of Indian epics in Thai literature (5-10 minutes)</p> <p>2.2 Students identify the author's objective. They answer questions about the objective. (5 minutes)</p> <p style="text-align: center;"><i>Questions</i></p> <ol style="list-style-type: none"> 1) Why did King Rama sixth write Savitri? 2) Did King Rama sixth write Savitri only entertainment objective? 3) Why did Queen Suwattana receive the literature from the King? 4) Why are two Thai versions (translation and poetry) of Savitri?

Step of Teaching	Activities
	<p>2.3 Students answer the true-false quiz in terms of the author's objective, the background and historical contexts of Savitri in the individual worksheet (Appendix C). A few students answer questions, and explain more details (5-10 minutes)</p> <p><i>Questions</i></p> <ol style="list-style-type: none"> 1) Why was Savitri written nearly the final year of the King Rama sixth? 2) How do the two Thai versions of Savitri link with Mahābhārata? 3) Does the King Rama sixth want to support the feminism in Thailand? <p>2.4 Students are randomly divided into a group of five members, eight groups. Each group studies a topic in Savitri which is assigned. Translating and summarising Thai poetry are also guided (Appendix A). (10 minutes)</p> <p><i>Topics in Savitri</i></p> <ol style="list-style-type: none"> 1. Beauty and knowledge: group 1-2 (see pp.77, 82 and 88 etc.) 2. Planning: group 3-4 (see pp. 60, 68 and 88 etc.) 3. Submissive woman: group 5-6 (see pp. 60, 83 and 86 etc.) 4. Family relationship: group 7-8 (see pp. 68, 82-83 and 91-92 etc.) <p>2.5 All groups translate and summarise poems of Savitri in the group worksheet part 1 (Appendix D). Websites of Thai language and literature (Appendix B) are suggested. (10 minutes)</p> <p>2.6 They interpret poems in Savitri, and compare some poems with their topic in the group worksheet part 2 (Appendix D). (15 minutes)</p> <p><i>Poems of Savitri</i></p> <p>“The death can fall but once ; a daughter can be given away but once; and once only can a person say, I give aivay !¹”</p> <p style="text-align: right;">(Roy, 1962, p.627)</p>

Step of Teaching	Activities
	<p>“Savitri said, 'Thou needst not be sorry, O father ! This vow I shall be able to observe ! I have for certain undertaken this task with perseverance; and perseverance is the cause of the successful observance of vows.’”</p> <p>(Roy, 1962, p.629)</p> <p>2.7 Students within group discuss to adapt ideas in Savitri (2.6) for the problem resolution in the group worksheet part 3 (Appendix D). (15 minutes)</p> <p>2.8 All groups present their viewpoints. They answer questions about their presentation. (10 minutes)</p> <p><i>Questions</i></p> <ol style="list-style-type: none"> 1) What is the problem in this situation? 2) How do you understand the problem? 3) How do you link ideas in Savitri with your solution? 4) Are your solution clear and reasonable? 5) Would you like to change your solution after discussion?
3. Summary (5-10 minutes)	3.1 Students summarise topics of the lesson which consist of the author’s objective, background, historical contexts and ideas of Savitri.

Assessment

Using true-false quiz and short essay to check the student learning in terms of individual and group assessment. (Please see Appendix C and D)

The Teaching Record

What did I find that my students were or were not able to do in this lesson?	
What was the problem?	How could/will I solve the problem?

The Group Observation Record

Group No.	Student ID	
Lesson Topic	Date	Time

Instruction Please circle an appropriate number of items (1 = very little, 2 = a little, 3 = quite a lot, 4 = a lot, 5 = a very great deal)

1. Content

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|--|---|---|---|---|---|
| 1.1 Students answer questions correctly and reasonably. | 1 | 2 | 3 | 4 | 5 |
| 1.2 Students wait for correct answers from the teacher. | 1 | 2 | 3 | 4 | 5 |
| 1.3 Students use dictionary to translate words and idioms. | 1 | 2 | 3 | 4 | 5 |
| 1.4 Students misunderstand ideas of the literature. | 1 | 2 | 3 | 4 | 5 |

2. Tasks

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|---|---|---|---|---|---|
| 2.1 Worksheets are finished on time. | 1 | 2 | 3 | 4 | 5 |
| 2.2 Worksheets are proved by all group members. | 1 | 2 | 3 | 4 | 5 |
| 2.3 Some parts of these worksheets are incomplete. | 1 | 2 | 3 | 4 | 5 |
| 2.4 Answers in these worksheets are repeatedly amended. | 1 | 2 | 3 | 4 | 5 |

3. Students and teacher interaction

- | | | | | | |
|---|---|---|---|---|---|
| 3.1 Students listen attentively to all instructions. | 1 | 2 | 3 | 4 | 5 |
| 3.2 The teacher is asked when students want to be clearer. | 1 | 2 | 3 | 4 | 5 |
| 3.3 Students are sleepy during lecture. | 1 | 2 | 3 | 4 | 5 |
| 3.4 Students argue with the teacher confidently and reasonably. | 1 | 2 | 3 | 4 | 5 |

4. Group participation

- | | | | | | |
|---|---|---|---|---|---|
| 4.1 Students listen to different ideas with each other. | 1 | 2 | 3 | 4 | 5 |
| 4.2 All group members create a consensus or a solution. | 1 | 2 | 3 | 4 | 5 |
| 4.3 Silence and distraction can be seen during discussion. | 1 | 2 | 3 | 4 | 5 |
| 4.4 A student dominates other group members. | 1 | 2 | 3 | 4 | 5 |
| 4.5 Impolite speaking can be seen during conflict resolution. | 1 | 2 | 3 | 4 | 5 |
| 4.6 Presentation is prepared by all group members. | 1 | 2 | 3 | 4 | 5 |
| 4.7 Students share their ideas and experiences with other groups. | 1 | 2 | 3 | 4 | 5 |

Further comments

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Adapted from:

Cohen, L., Manion, L., and Morrison, K., 2004. *A guide to teaching practice*. 5th ed. London: RoutledgeFalmer.

Jaques, D. and Salmon, G., 2007. *Learning in groups a handbook for face to face and online environments*. 4th ed. London: Routledge.

Appendix A

Power Point slides (see attached file)

Appendix B

Websites of Thai language and literature

Full Text of Savitri in Mahābhārata (English version)

<http://holybooks.lichtenbergpress.netdna-cdn.com/wp-content/uploads/Mahabharata-VOL-3.pdf>

Full Text of Savitri (Translating Thai version)

<http://www.reurnthai.com/wiki/สวริตรี>

Thai dictionary

<http://www.royin.go.th/dictionary/>

Thai literature

http://www.arts.chula.ac.th/~complit/thesis/thesis_th/2535.htm

http://www.bejaratana-suvadhana.org/suva_page008.html

<http://www.surdi.su.ac.th/en/2014/07/his-majesty-king-mongkutklao-or-king-rama-vi/>

Appendix C

The Individual Worksheet

Student's name.....ID.....

Aim

1. To understand the author's objective and background of Savitri.

Instruction Please choose True (T) or False (F) of items in terms of the author's objective, background and historical contexts of Savitri. (10 marks)

- T or F** 1. Savitri was written nearly the final year of King Rama sixth.
- T or F** 2. The name of Savitri in the literature comes from the goddess who is Shiva's wife.
- T or F** 3. Savitri in Mahābhārata is probably the model of traditional Thai women.
- T or F** 4. There are two Thai versions of Savitri because of different objective and political issue.
- T or F** 5. Queen Suwattana was the first person who received the literature by King Rama sixth.
- T or F** 6. The Thai poetry version of Savitri was written as a Thai musical play.
- T or F** 7. The Thai translation version of Savitri consists of less details rather than the poetry version.
- T or F** 8. The Thai poetry version of Savitri is probably comparable to the Western opera.
- T or F** 9. Removing the idea of submissive woman can be seen in Savitri in terms of the Thai poetry version.
- T or F** 10. Although the literature comes from Mahābhārata, there are Buddhist principles in the literature.

Answers

1.	T	2.	F	3.	F	4.	F	5.	T
6.	T	7.	F	8.	T	9.	F	10.	T

Appendix D

The Group Worksheet

Group No.....
Student's name.....ID.....
Student's name.....ID.....
Student's name.....ID.....
Student's name.....ID.....
Student's name.....ID.....

Aim

2. To analyse theme and ideas of Savitri. (Part 1 and 2)

Part 1

Instruction Please choose a poem of Savitri within your topic, and write it down
Poem B. Please translate and summarise Poem A and B. Please answer only
your topic. (10 marks)

Topic 1: Beauty and knowledge (group 1-2)

Poem A

“By virtue of my asceticism, of my regard for my superiors, of my affection for my lord, of my observance of vows, as well as of thy favour, my course is unimpeded.³”

(Roy, 1962, p.631)

1.1 Translation

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1.2 Summary

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Poem B (Page

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1.4 Translation

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1.5 Summary

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Topic 2: Planning (group 3-4)

Poem A

“And as the words that had been spoken by Narada were ever present in the mind of Savitri, she had counted the days as they passed. And having ascertained that her husband would die on the fourth day following, the damsel fasted day and night, observing the Triratna vow.⁴”

(Roy, 1962, p.629)

2.1 Translation

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2.2 Summary

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Poem B (Page.)

2.3
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2.4 Translation

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2.5 Summary

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Topic 3: A submissive woman (group 5-6)

Poem A

“Savitri replied, 'Whither my husband is being carried, or whither he goeth of his own accord, I will follow him thither. This is the eternal custom.’ ⁵ ”
(Roy, 1962, p.631)

3.1 Translation

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3.2 Summary

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Poem B (Page.)

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3.4 Translation

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3.5 Summary

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Topic 4: Family relationship (group 7-8)

Poem A

And she gratified her mother-in-law by attending to her person and by covering her with robes and ornaments. And she gratified her father-in-law by worshipping him as a god and controlling her speech.⁶

(Roy, 1962, p.628)

4.1 Translation

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4.2 Summary

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Poem B (Page.)

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4.4 Translation

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4.5 Summary

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Part 2

Instruction Please interpret Poem A and B in Part 1, then choose an idea of your interpretation to compare with an idiom. Please answer only your topic.
(14 marks)

Topic 1: Beauty and knowlegde (group 1-2)

1.1 Interpretation

1.1.1 Poem A

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1.1.2 Poem B

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1.2 Comparing with the idiom: Beauty without grace is a violet without smell.⁷

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Topic 2: Planning (group 3-4)

2.1 Interpretation

2.1.1 Poem A

2.1.2 Poem B

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2.2 Comparing with the idiom: *Haste makes waste.*⁸

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Topic 3: A submissive woman (group 5-6)

3.1 Interpretation

3.1.1 Poem A

3.1.2 Poem B

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3.2 Comparing with the idiom: *It's a sad house where the hen crows louder than the cock.*⁹

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Topic 4: Family relationship (group 7-8)

4.1 Interpretation

4.1.1 Poem A

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4.1.2 Poem B

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4.2 Comparing with the idiom: *Apple of one's eyes*¹⁰

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Part 3

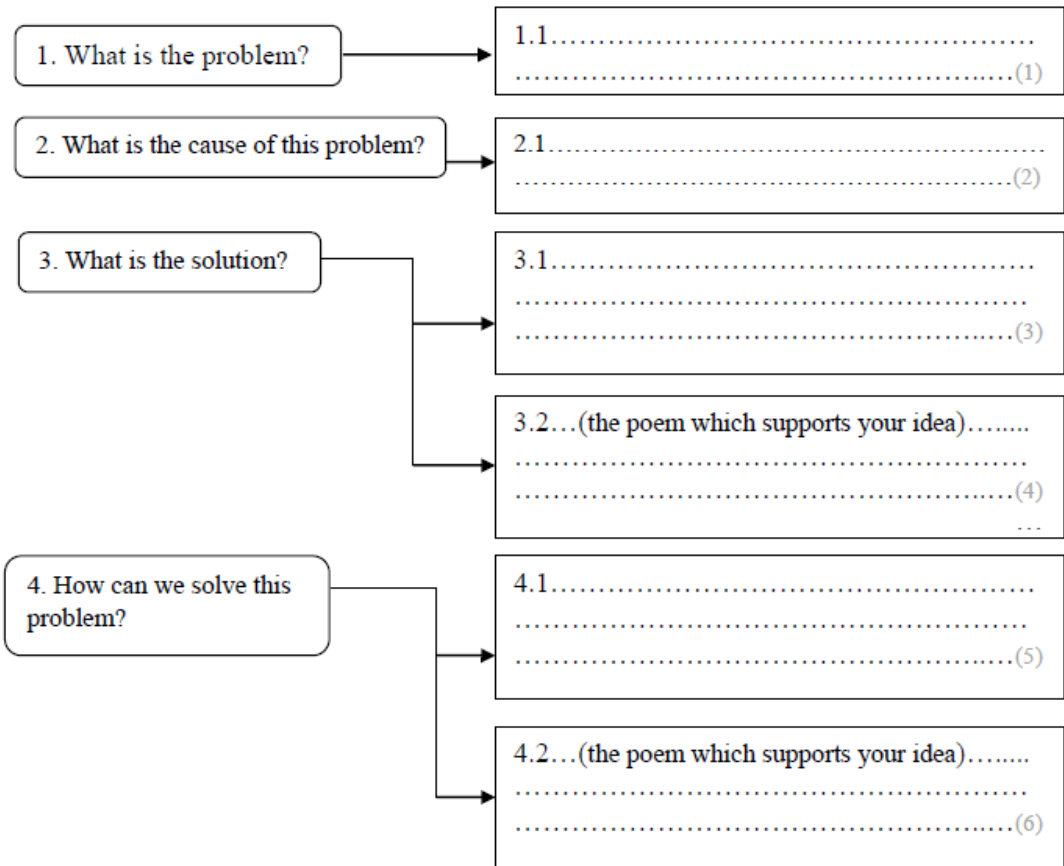
Aim

3. To apply ideas of Savitri for the problem resolution.

Instruction Please read the problem posed and give a solution to the question. You must choose a poem of Savitri which may be different from your group topic to support your opinions. (14 marks)

The situation

The serious final test is coming next two weeks, so you would like to receive a high grade level such as A or B+. Unfortunately, the time seems to limit because you have to find a new apartment and move out on the same date of the final test. Moreover, uncle Bob, who lives in Northern Thailand, will visit you for three days before the final test. If you cannot deny any situations, how will you do for next two weeks?



References

Chaiphumdham, S., 1994. *Learning and comparing Thai proverbs with English idioms and proverbs*. Bangkok: Tondham.

Phokasumrit, P., 2009. Idioms and proverbs: linguistic forms and English to Thai translation techniques. *Journal of NIDA language and communication*, 14 (15), pp. 17-37.

Roy, P. C., 1962. *The Mahabharata of Krishana-Dwaipayana Vyasa translated into English prose from the original Sanskrit text*. 2nd ed. Calcutta: Oriental Publishing.

Vajiravudh, H.M. King., 2011. *Savitri*. Nontaburi: Wisdom.

Assessment Checklist

Aim	Part	Topic	Marks (38 marks)	Result (✓)
2	1	1. The responses address five items.	2	
		2. A poem in Savitri, which is chosen, links with the group topic.	2	
		3. Keywords of two poems can correctly be translated in terms of the dictionary and contexts.	2	
		4. The translation of these poems is clear.	2	
		5. The translation (4) can reasonably be summarised.	2	
	2	6. The responses address three items.	2	
		7. The hidden meaning of words and phrases can be interpreted.	2	
		8. The tone of writing can be analysed and linked with an idea in Savitri.	2	
		9. The main idea can reasonably be analysed.	2	
		10. The idiom can correctly be translated.	2	
		11. An idea of group interpretation is compared with the idiom (10).	2	
		12. Not less than a reason is given to support the comparison (11).	2	
3	2	13. The responses address six items.	2	
		14. The problem is identified.	2	
		15. The problem is reasonably analysed.	2	
		16. The solution is created.	2	
		17. The reason is given to support the solution.	2	
		18. An idea in Savitri links with the reason.	2	
		19. A poem in Savitri is given to support the solution.	2	
Total				

Notes

- ¹ “อันลูกบาศก์จะตกได้ก็เพียงครั้งเดียว, บุครีก็ยกให้เขาได้เพียงครั้งเดียว, และคนเราจะพูดว่า ‘ฉันทยกให้’ ดังนี้ก็ได้แต่เพียงครั้งเดียวเท่านั้น.”

(H.M. King Vajiravudh, 2011, p. 15)

โอ้วว่าบิดาบังเกิดเทศ
ลูกบาศก์ตกได้เพียงหนเดียวไซริ
อนึ่งสั้นวาจาว่ายกให้

ทรงเดชดำรงสเช่นนั้นได้
ทั้งบุครียกให้ได้หนึ่งครั้ง
ก็ไ้เพียงครั้งเดียวเป็นที่ตั้ง

(H.M. King Vajiravudh, 2011, p. 56)

- ² นางสาวตรีทิฎฐ์กล่าวว่า, --“พระบิดาย่าทรงพระวิตกเลย. กระทบอ้อมฉันทจะถือชุดงค์นี้ให้จงได้. กระทบอ้อมฉันทได้ตั้งใจเริ่มกิจนี้แล้วด้วยความเพียร; และความเพียรนั้นเที่ยว เป็นเหตุแห่งการบำเพ็ญตบะ ทั้งปวงให้สำเร็จได้.”

(H.M. King Vajiravudh, 2011, p. 19)

อันว่าการพลีที่ประจำ
หม่อมฉันทจึงมาเฝ้าพระภูบาล
หม่อมฉันทได้ตั้งใจในตบะ
ขององค์พระบิดุเรศและมารดร
.....
ก็ไหนไหนได้ทนมาสามวัน
ขอรอไว้จนสิ้นทิวากาล

เวลาเข้าได้กระทำทุกสถาน
และพระแม่ขอประทานซึ่งพระพร
ไม่เลยละสำเร็จมียอหย่อน
ประทานพรเพื่อสุขสวัสดิ
.....
กระทบอ้อมฉันทยังไม่อยากอาหาร
ตั้งจิตอธิษฐานไว้เช่นนี้

(H.M. King Vajiravudh, 2011, pp. 67-68)

- ³ ด้วยอำนาจแห่งตบะของกระทบอ้อมฉันท, แห่งเชษฐาประจายณะธรรมของกระทบอ้อมฉันท, แห่งศีลของกระทบอ้อมฉันท. อีกทั้งพระกรุณาภาพของพระองค์, จะมีสิ่งใดก็คิดวางในปฏิปทาของกระทบอ้อมฉันทก็หา มิได้.

(H.M. King Vajiravudh, 2011, p. 25)

ด้วยอำนาจแข็งแรงแห่งตบะ
อีกพระองค์กรุณาแก่ข้าไท

และสัมมาคารวะต่อผู้ใหญ่
คงไม่มีสิ่งใดก็คิดทางจร

อันผู้ใดไฝ่ธรรมเป็นเนืองนิตย์
ปฏิบัติพร้อมพรังคังครุสอน

และรู้จักข่มจิตไม่ย่อหย่อน
คงไม่ต้องอนาทรและร้อไน

(H.M. King Vajiravudh, 2011, p. 82)

- 4 และเพราะเหตุที่ถ้อยคำซึ่งพระนารทกล่าวได้ฝังอยู่เป็นนิตย์ในจิตของนางสาวตรี, นางนั้นจึงนับวันที่ล่วงไปนั้นทุกวัน. และเมื่อนางคำนวณได้แน่แล้วว่าต่อไปอีกสี่วันพระภรรดาจะสิ้นพระชนม์. นางจึงอดอาหารทั้งกลางวันกลางคืนบำเพ็ญศรีราตระชุกงค์.

(H.M. King Vajiravudh, 2011, pp. 18-19)

อนิจจาจิตมาน่าใจหาย
จนจวนวันจะถึงหนึ่งปี
ว่าองค์พระภรรดาผู้ย่ำจิต
อนิจจาเป็นกรรมที่ทำได้
อุคต่าห์บ่มคปะทรมาน
อดอาหารนานาสามราตรี

ได้มีสุขสบายอยู่เต็มที
ไอ้วันนี้ถึงวันสำคัญไว้
จะต้องปลดปลงปลิดชีพตักมัย
จึงมาต้องทุกข์ใหญ่ในครานี้
เพื่อเทวมหาศาลโปรดเกศี
ขอผลจงได้มีสมจิตเรา

(H.M. King Vajiravudh, 2011, pp. 59-60)

- 5 สาวตรีทูลตอบว่า,--“พระภรรดาจะถูกพาไป ณ หนใด, หรือเธอจะเสด็จเอง ณ หนใดก็ดี, กระหม่อมฉันจะขอตามเสด็จไป ณ หนนั้น. นี่เป็นธรรมเนียมอันยังยืน.”

(H.M. King Vajiravudh, 2011, p. 25)

พระภรรดาถูกพาไปหนไหน
หรือเสด็จไปเองในมรรคา

หม่อมฉันขอตามไปพระเจ้าข้า
ข้าก็จะขอตามเสด็จไป

(H.M. King Vajiravudh, 2011, p. 82)

- 6 และนางได้ทำให้พระมารดาของพระสวามีพอพระหฤทัยโดยปฏิบัติรับใช้และจัดภูษาและอาภรณ์ให้ทรง. และนางทำให้พระบิดาของพระสวามีพอพระหฤทัยโดยกระทำสักการเหมือนอย่างบุชานเทวดาและส้ารวมในวจา,

(H.M. King Vajiravudh, 2011, p. 18)

- 7 “สวยแต่รูป จูบไม่หอม” (Phokasumrit, 2009, p. 7)

⁸ “ข้าเป็นกร นานเป็นคุณ” (Chaiphumdhham, 1994, p. 41)

⁹ “สามีเป็นช้างเท้าหน้า ภรรยาเป็นช้างเท้าหลัง” (Chaiphumdhham, 1994, p. 117)

¹⁰ “แก้วตาดวงใจ” (Phokasumrit, 2009, p. 34)

Appendix 3 The Problem-Solving Skills test

Student Name..... Student ID

Learning outcome

The student can analyse the problem and find the solutions in terms of applying the Thai literature.

Instruction

Please read the poems in this test paper which come from the classic Thai literature. Please read the problem posed and give solutions to the questions. You must choose some poems of the literature to support your opinions in part one (topic number three and four) and in part two. Please write in full sentences to each question.

The test consists of two parts totalling 30 marks. Part one is 20 marks and part two is 10 marks. Both parts are to evaluate the problem solving skills in terms of learning about Thai literature. The duration of test is 50 minutes.

Adapted from: Brown, H. D. and Lee, H., 2015. *Teaching by principles an interactive approach to language pedagogy*. 4th ed. New York: Pearson Education.

Klong Loknit

FATHOMS DEEP THOUGH THE SEAS MAY BE,
MEASURABLE ARE THE SEAS IN DEPTH.
SCALED CAN MOUNTAINS BE IN HEIGHT.
IMMEASURABLE IS THE DEPTH, THIS PART OF MAN.

(Translated by Pramoj, 1986, p. 11)

Savitri

My husband will die because of his previous karma.
Therefore, the sorrow occurs. The asceticism has been done for the
blessing of gods. I have starved for three nights, so the gods do me a
favour, please.

(Fines Arts Department, 1957, p. 67)

A man is always happy because he has the faith of dharma and self-
consciousness. He also respects his teacher's speech.

(Fines Arts Department, 1957, p. 82)

Kaki

Because of my carelessness, Kaki, who is my wife, is kidnapped.
Khon Thun (Gandharvas), who is an adulterer, is the kidnapper
because I have not thought about protecting my wife.

(Chaophrayaphraklung Hon, 1973, p. 24)

Madanabādhā

Anger so often doth obsess that royal dame;
The more opposed the hotter grows that anger's flame.

(Translated by King Rama sixth in Fines Arts Department, 1951, p. 94)

The valuable and graceful jewelry can be easily found because of having
a merchant and the money. However, a good wife and a genuine friend
are difficult to find. Although a man is so rich, he might not have both of
them.

(Fines Arts Department, 1951, p.126)

Lilt Phra lo

All things of this world are ever changing.
Only merits and demerits remain true.
As shadow which firmly cling to us,
We are sustained by our vices and virtues.

(Translated by Rajda Isarasena, 1999, p. 401)

Whatever we do we must be most cautious.
A tiny flaw or shortcomings must not occur
So as to bring out good success.

(Translated by Sudchit Bhinyoying, 1999, p. 539)

Khun Chang Khun Phaen

As they gradually got over their sadness, Khun Phaen pondered and said, “Did you ever hear people talk of Phra Phichit and Busaba as kind people? Anyone who is poor can go to them for help. Anyone condemned to death can rely on their mercy. Let’s go there.”

(Translated by Baker and Phongpaichit, 2010, p. 423)

There’s an ancient saying that mortal humans can rebound from hardship seven times. All this difficulties will pass. You should survive beyond your sentence.

(Translated by Baker and Phongpaichit, 2010, p. 481)

References

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The situation

You have to send an important report to your lecturer by 9 a.m. by tomorrow, but you have not finished yet at 10.30 p.m. Therefore, you plan to do the report all night. Unfortunately, while you are typing the document, the computer suddenly shuts down. You do not record any information which has already been typed. Although you try to turn on the computer again, it is still a problem. Thus, you are so tired and begin to give up.

Part One

1. Identify the problem

Questions

- a) According to the situation, what is the problem?
- b) Why do you think it is a serious problem?

Answers

- a).....(1)
- b).....(2)
- c).....(3)

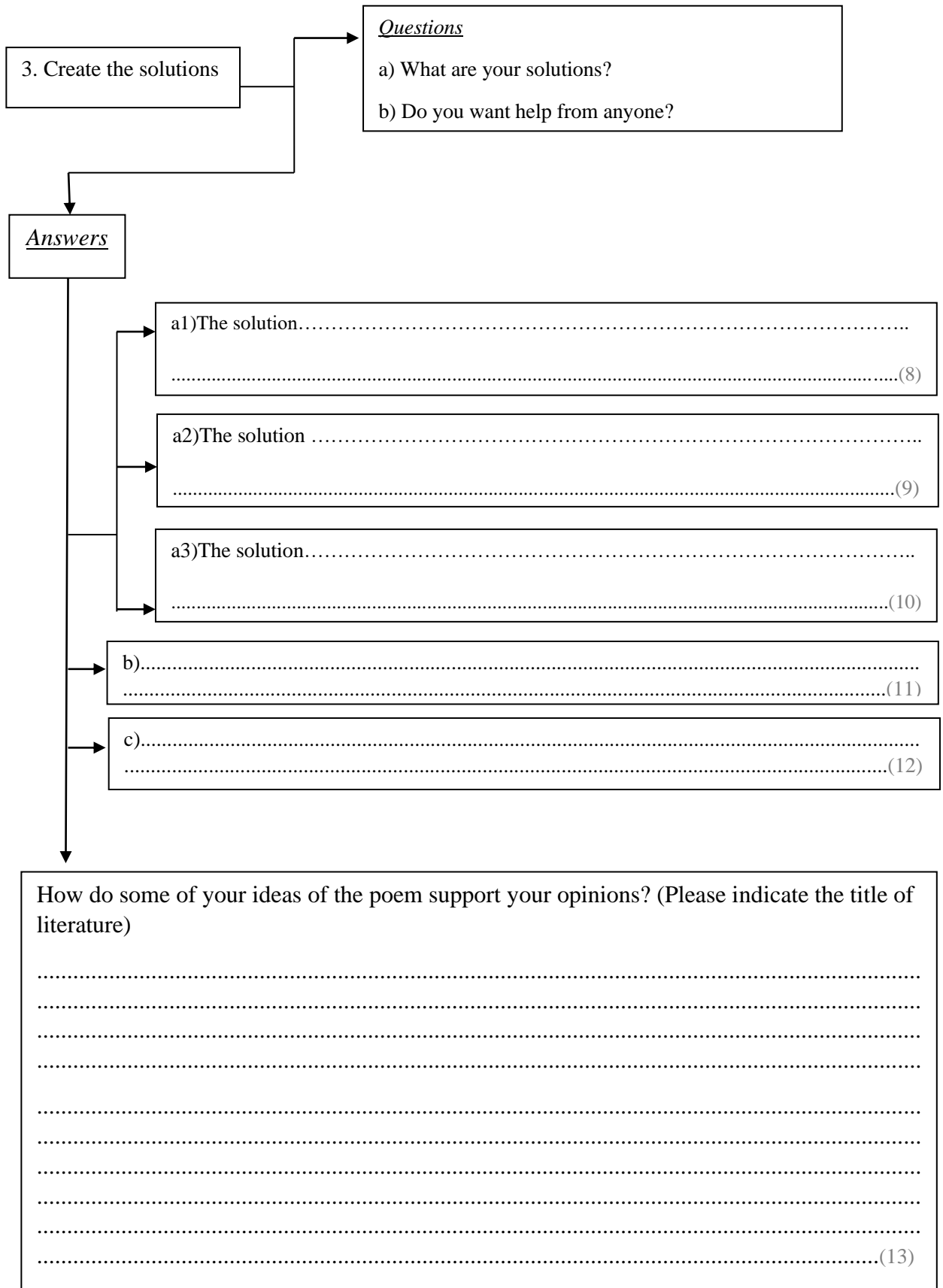
2. Analyse the problem

Questions

- a) What are these causes of the problem?
- b) Which cause is likely to be the most serious?
- c) From b), why the cause is likely to be the most serious?

Answers

- a)..... (4)
- b).....(5)
- c).....(6)



4. Plan to solve the problem

Questions
a) Which solution is probably the most effective?
b) From a), why do you choose this solution?

Answers
a).....(14)
b).....(15)
c).....(16)
d).....(17)
How do some of your ideas of the poem support your opinions? (Please indicate the title of literature)
.....
.....
.....
.....
.....

Part Two

If you do not want to meet this situation again, what will you do next time?

Answers
.....
.....
.....(19)
How do some of your ideas of the poem support your opinions? (Please indicate the title of literature)
.....
.....
.....
.....(20)

The assessment criteria

Topic	High 4	Middle 3	Less 2	Fail 1
The Problem solving skills (40 per cent)	<p>The responses address 11-14 questions.</p> <p>The problem is indicated and analysed.</p> <p>Three solutions are created.</p> <p>The reasons are given to support the solutions.</p> <p>The most effective solution is selected and analysed.</p> <p>The important steps of the solution are designed.</p> <p>The strength and weakness of the solution are evaluated.</p>	<p>The responses address 7-10 questions.</p> <p>The problem is indicated and analysed.</p> <p>Two solutions are created.</p> <p>The reasons are given to support the solutions.</p> <p>The most effective solution is selected but it is not analysed.</p> <p>The important steps of the solution are designed.</p> <p>The strength or weakness of the solution is evaluated.</p>	<p>The responses address 4-6 questions.</p> <p>The problem is indicated, but it is not analysed.</p> <p>One solution is created.</p> <p>The reason is given to support the solution.</p> <p>The important steps of the solution are designed.</p> <p>The solution is not evaluated.</p>	<p>The responses address 1-3 questions.</p> <p>The problem is indicated, but it is not analysed.</p> <p>There is not any solution.</p> <p>There is not any reason.</p>
Applying Thai literature (40 per cent)	<p>The responses address three questions.</p> <p>Not less than three poems are selected to support the student's opinions.</p> <p>The poems are correctly translated. They are also interpreted.</p> <p>The student compares and contrasts ideas of these poems with the solutions.</p>	<p>The responses address two questions.</p> <p>Two poems are selected to support the student's opinions.</p> <p>The poems are correctly translated, but they are not interpreted.</p> <p>The student compares or contrasts ideas of these poems with the solutions.</p>	<p>The response addresses one question.</p> <p>One poem is selected to support the student's opinions.</p> <p>The poem is translated, but it is not interpreted.</p> <p>The student compares or contrasts ideas of the poem with the solutions.</p>	<p>The response addresses one question.</p> <p>One poem is selected to support the student's opinions.</p> <p>The poem is not translated and interpreted.</p> <p>The student does not compare and contrast ideas of the poem with the solutions.</p>

The assessment criteria (Cont.)

Topic	High 4	Middle 3	Less 2	Fail 1
Applying Thai literature (40 per cent)	Not less than three ideas of the poems are given to support the student's opinions.	Two ideas of the poems are given to support the student's opinions.	One idea of the poem is given to support the student's opinions.	Any idea of the poem is not given to support the student's opinions.
Writing (20 per cent)	<p>Full sentences are written in 16-20 responses.</p> <p>The formal language is used.</p> <p>Not over than five errors in grammar can be seen.</p> <p>Not over than five errors in spelling and punctuation can be seen.</p>	<p>Full sentences are written in 11-15 responses.</p> <p>The formal language is used.</p> <p>6-8 errors in grammar can be seen.</p> <p>6-10 errors in spelling and punctuation can be seen.</p>	<p>Full sentences are written in 6-10 responses.</p> <p>The semi-formal language is used.</p> <p>9-11 errors in grammar can be seen.</p> <p>11-15 errors in spelling and punctuation can be seen.</p>	<p>Full sentences are written in 1-5 responses.</p> <p>The informal language is used.</p> <p>More than 11 errors in grammar can be seen.</p> <p>More than 15 errors in spelling and punctuation can be seen.</p>

(Thai version)

แบบทดสอบทักษะการแก้ปัญหา

ผลการเรียนรู้

นักเรียนสามารถวิเคราะห์ปัญหาและระบุแนวทางการแก้ไขโดยประยุกต์ความรู้จากวรรณคดีได้

คำชี้แจง

โปรดอ่านคำประพันธ์ที่กำหนด จากนั้นวิเคราะห์และระบุแนวทางการแก้ไขจากสถานการณ์ที่กำหนด ท่านสามารถเลือกคำประพันธ์เพื่อสนับสนุนความคิดของคนในกิจกรรมตอนที่ 1 และ 2 โดยเขียนตอบให้ชัดเจน

แบบทดสอบฉบับนี้ประกอบด้วย 2 ตอน รวม 30 คะแนน ตอนที่ 1 จำนวน 20 คะแนน ตอนที่ 2 จำนวน 10 คะแนน ทั้งสองตอนเป็นการประเมินทักษะการแก้ปัญหาโดยประยุกต์ความรู้จากแนวคิดในวรรณคดีไทย ระยะเวลาในการทำแบบทดสอบ จำนวน 50 นาที

คัดแปลงจาก: Brown, H. D. & Lee, H., 2015. *Teaching by principles an interactive approach to language pedagogy*. 4th ed. New York: Pearson Education.

คำประพันธ์จากวรรณคดีที่กำหนด

พระสมุทรสุดลูกคลื่น	คณนา
สายเค้งทิ้งทอดมา	หยั่งได้
เขาสูงอาจวัดวา	กำหนด
จิตมนุษย์นี้ไซร้	ยากแท้หยั่งถึง

(โคลงโลกนิติ พระนิพนธ์ในสมเด็จพระเจ้าบรมวงศ์เธอ กรมพระยาเดชาดิศร)

ว่าองค์พระภรรดาผู้ย้าจิต	จะต้องปลดปลงปลิดชีพกษัย
อนิจจาปนกรรมที่ทำไว้	จึงมาต้องทุกข์ใหญ่ในครานี้
อุคสำหรับมะคะบะทรมาน	เพื่อเทวมหาสถานโปรดเกศี
อดอาหารนานาสามราตรี	ขอผลจงได้มีสมจิตเรา

(บทละครเรื่อง สาวตรี พระราชนิพนธ์ในพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว)

อันผู้ใดไฝ่ธรรมเป็นเนืองนิตย์	และรู้จักข่มจิตไม่ย่อหย่อน
ปฏิบัติพร้อมพรุ่งคังครุสอน	คงไม่ต้องอนาทรและร้อนใจ

(บทละครเรื่อง สาวตรี พระราชนิพนธ์ในพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว)

เราเสียแก้วกาศีศรีสาวท	เพราะประมาทไม่ถนอมเป็นจอมขวัญ
เสียฤทธิ์เพราะไม่คิดจะป้องกัน	คนชรพม้นจึงแทรกเข้าซ่อนกล

(กาก็กลอนสุภาพ โดย เจ้าพระยาพระคลัง (หน))

พระนางเชือกัโทยา	คติมักจะครอบดวง
หะทัยอยู่และไครท้วง	ฤทัยมักจะยิ่งใหญ่

(บทละครพูด เรื่อง มัทนะพาธา พระราชนิพนธ์ในพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว)

จะหามณีรัตน์	รู้จักก็อาจหา
เพราะมีวณิชค้ำ	และคนก็มั่งมี
ก็แต่จะหาซึ่ง	ภริยาและมิตรดี
พิรัพยะมากมี	ก็บได้ประคองใจ

(บทละครพูด เรื่อง มัทนะพาธา พระราชนิพนธ์ในพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว)

สิ่งใดในโลกล้วน
คงแต่บาปบุญยัง
คือเงาติดตัวตรึง
ตามแต่บาปบุญแล้ว

อนิจจัง
เที่ยงแท้
ตรึงแน่น อยู่มา
ก่อเกื้อรักษา

(ลิลิตพระลอ)

คิดชอบรอยต่อถ้อย
หนึ่งใส่เป็นผล

จงอย่ามีคติน้อย

(ลิลิตพระลอ)

ครั้งค่อยวายกำสรดสลดจิต
ไต่ย็นข่าวเล่าฎาออกชื่อมา
ใครขัดสนจน ไปก็ไต่ฟัง
ท่านก็มักเมตตาปราณี

ขุนแผนคิดครองศรีแล้วปรึกษา
ว่าพระพิจิตรบุษบานันใจดี
ถ้าโทษถึงชีวิตจะเป็นผี
อันตัวที่กับเจ้าจะเข้าไป

(เสภา เรื่อง ขุนช้างขุนแผน พระราชนิพนธ์ในพระบาทสมเด็จพระพุทธเลิศหล้านภาลัย)

โบราณท่านสมมุติมนุษย์นี้
ที่ทุกข์โศกโรคร้อนค้อยผ่อนปรน

ยากแล้วมีไหม่สำเร็จถึงเจ็ดหน
คงจะพ้นโทษทัณฑ์ไม่บรรลีย์

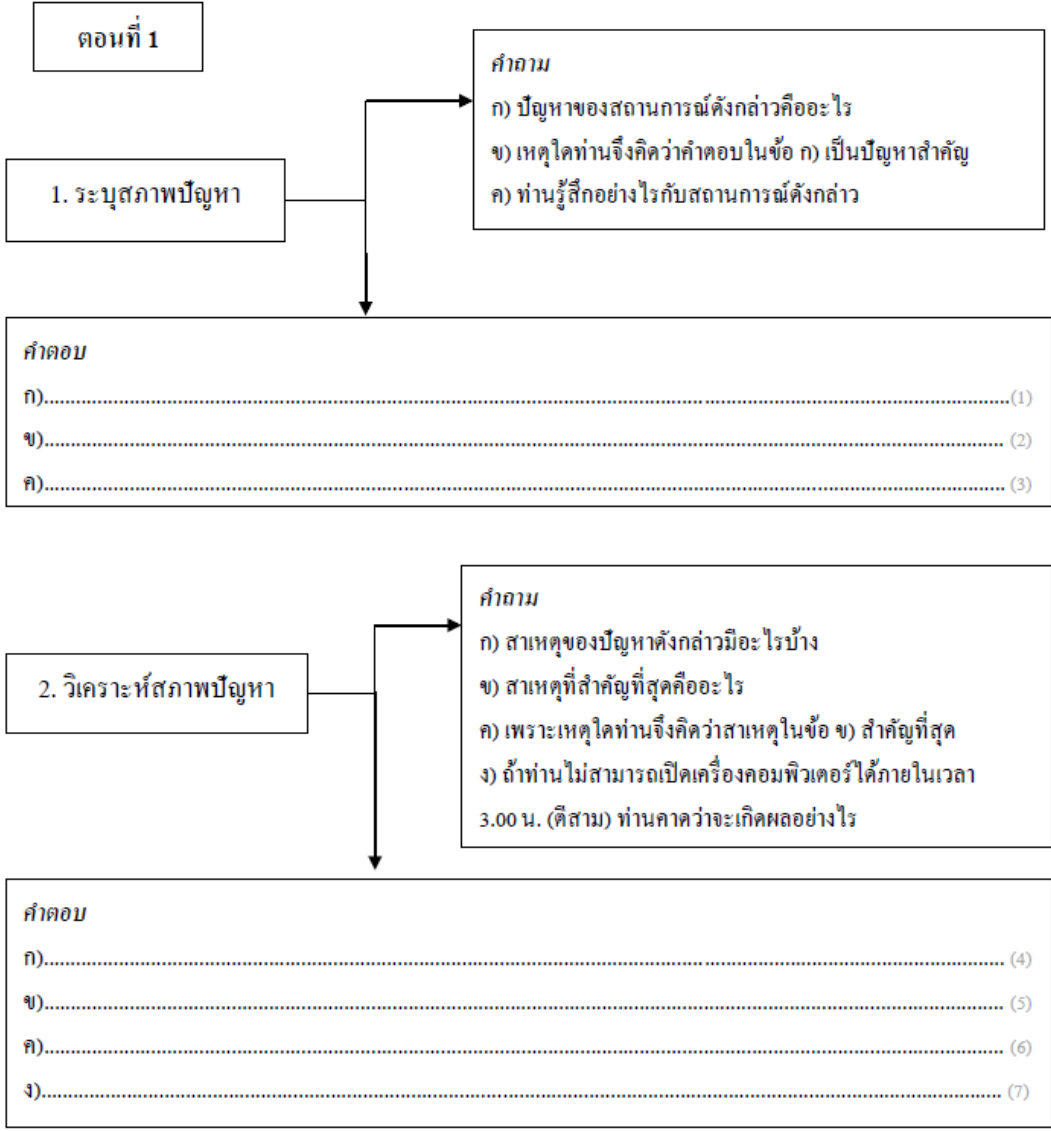
(เสภา เรื่อง ขุนช้างขุนแผน พระราชนิพนธ์ในพระบาทสมเด็จพระพุทธเลิศหล้านภาลัย)

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สถานการณ์ที่กำหนด

ท่านจำเป็นต้องส่งรายงานต่ออาจารย์ผู้สอนภายในเวลา 9.00 น. ของวันรุ่งขึ้น แต่ขณะนี้เวลา 22.30 น. ท่านยังทำรายงานไม่เสร็จ ดังนั้นท่านจึงวางแผนดำเนินการให้เสร็จภายในคืนนี้ แต่ทว่าขณะที่พิมพ์งานคอมพิวเตอร์ของท่านปิดโดยไม่มีสาเหตุและท่านยังไม่ได้บันทึกข้อมูลใด ๆ ลงในเครื่องฯ หรือซีดี แม้ท่านพยายามเปิดคอมพิวเตอร์อีกหลายครั้งแต่ก็ไม่สำเร็จ ท่านจึงเริ่มรู้สึกเหนื่อยล้าและท้อแท้



3. แนวทางการแก้ปัญหา

คำตอบ

คำถาม
 ก) การแก้ปัญหาของท่านคืออะไร
 ข) ท่านต้องการความช่วยเหลือจากผู้อื่นหรือไม่
 ค) เหตุใดท่านจึงต้องการหรือ ไม่ต้องการความช่วยเหลือจากผู้อื่น

ก1) แนวทางแก้ไข.....
 (8)

ก2) แนวทางแก้ไข.....
 (9)

ก3) แนวทางแก้ไข.....
 (10)

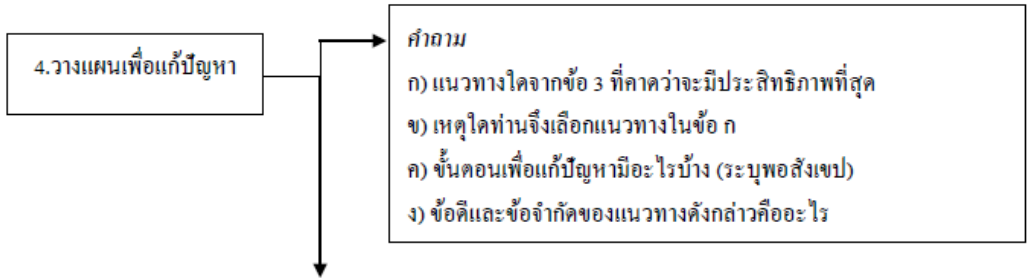
ข).....
 (11)

ค).....
 (12)

แนวคิดจากวรรณคดีสนับสนุนความคิดของท่านได้อย่างไรบ้าง (โปรดระบุชื่อวรรณคดี)

.....

 (13)



คำตอบ

ก)..... (14)

ข)..... (15)

ค)..... (16)

ง)..... (17)

แนวคิดจากวรรณคดีสนับสนุนความคิดของท่านได้อย่างไรบ้าง (โปรดระบุชื่อวรรณคดี)

.....

.....

.....

.....

..... (18)

ตอนที่ 2

ถ้าไม่ต้องการพบกับสถานการณ์ข้างต้นอีกครั้ง ท่านจะอย่างไร

คำตอบ

.....

.....

..... (19)

แนวคิดจากวรรณคดีสนับสนุนความคิดของท่านได้อย่างไรบ้าง (โปรดระบุชื่อวรรณคดี)

.....

.....

..... (20)

Appendix 4 The Attitude Questionnaire

Instruction

This questionnaire is designed to survey your opinions about problem solving skills and discussion and debate in a small group. There are no right or wrong answers. The questionnaire consists of two parts. There are 9 items to each part. For each item, please tick (✓) *one* out of the five options shown. Please answer each item.

Part I Problem-solving skills

No	Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	When I consult my parents about my problem, I can clearly identify the problem.					
2	I feel happy when my parents give me some ideas for analysing a problem.					
3	When I have a problem, my parents will solve the problem without asking my opinion.					
4	Sharing ideas with friends is unhelpful when analysing my problem.					
5	I tend to get annoyed when a friend helps to solve my problem.					
6	After listening to friends' suggestions, I will revise my ideas about a problem and plan relevant solution.					
7	I can clearly identify and analyse a problem when I answer a lecturer's question.					
8	I like to do an assignment which relates to creating a solution in everyday life.					
9	If a lecturer asks me to evaluate the plan for a solution, I will keep silent.					

Part II Learning activities within a Thai literature classroom

No	Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	A debate in a classroom may lead to aggressive behaviour by Thai undergraduates.					
2	Learning in a small group (3-4 students) bores Thai undergraduates.					
3	If Thai undergraduates have a group assignment, they will discuss this with each other in planning their assignment.					

Part II Learning activities within a Thai literature classroom (Cont.)

No	Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
4	After a debate with my friends and teacher about Thai literature themes and ideas, I can receive new perspectives such as objective, characters and aesthetic language.					
5	Discussion in a small group (3-4 students) makes me enthusiastic to learn about Thai literature.					
6	When I analyse Thai literature themes and ideas, I will not mention them or avoid being negative.					
7	Debate is an ineffective way to solve a problem in everyday life.					
8	During discussion within a Thai literature classroom, I am confused about mixing different ideas to create a possible solution.					
9	If my friend suggests a solution to me, I will analyse the strength and weakness of their solution.					

Thank you for your participation

(Thai version)

แบบสอบถามทักษะการแก้ปัญหา

คำชี้แจง

แบบสอบถามฉบับนี้จัดทำขึ้นเพื่อสำรวจความคิดเห็นเกี่ยวกับทักษะการแก้ปัญหาและกิจกรรมการอภิปรายและโต้แย้งภายในกลุ่มย่อย ความคิดเห็นของผู้ตอบแบบสอบถามไม่มีคำตอบที่ถูกหรือผิด แบบสอบถามประกอบด้วย 2 ตอน แต่ละตอนมี 9 ข้อ โปรดเขียนเครื่องหมายถูก (✓) เพียงหนึ่งตัวเลือกที่ตรงกับความคิดเห็นในแต่ละข้อ

ตอนที่ 1 ทักษะการแก้ปัญหา

ข้อ	ข้อความ	เห็นด้วย อย่างยิ่ง	เห็นด้วย	ไม่เห็นด้วย	ไม่เห็นด้วย อย่างยิ่ง
1	เมื่อพบกับปัญหา การปรึกษาพ่อแม่ทำให้ฉันระบุปัญหาได้ชัดเจนขึ้น				
2	ฉันมีความสุขเมื่อได้รับแนวคิดเพื่อวิเคราะห์ปัญหาจากพ่อแม่				
3	เมื่อฉันมีปัญหา พ่อแม่จะช่วยแก้ปัญหาโดยไม่ถามความคิดเห็นของฉัน				
4	การแลกเปลี่ยนความคิดเห็นกับเพื่อนไม่สามารถช่วยวิเคราะห์ปัญหาของฉันได้				
5	ฉันรู้สึกรำคาญเมื่อมีเพื่อนช่วยแก้ปัญหา				
6	เมื่อฟังคำแนะนำจากเพื่อน ๆ ฉันจะทบทวนความคิดเกี่ยวกับปัญหาและแนวทางแก้ไข				
7	เมื่อตอบคำถามจากครู ฉันสามารถระบุและวิเคราะห์ปัญหาได้				
8	ฉันชอบทำการบ้านหรือรายงานที่ได้รับมอบหมายเกี่ยวกับการแก้ปัญหา				
9	ฉันเพิกเฉย เมื่อครูให้ฉันประเมินแนวทางแก้ไขปัญหา				

ตอนที่ 2 กิจกรรมการอภิปรายและการโต้แย้งภายในกลุ่มย่อย

ข้อ	ข้อความ	เห็นด้วย อย่างยิ่ง	เห็นด้วย	ไม่เห็นด้วย	ไม่เห็นด้วย อย่างยิ่ง
1	กิจกรรมการโต้แย้งอาจทำให้นักศึกษาไทยมีพฤติกรรมก้าวร้าว				
2	การเรียนรู้ด้วยกลุ่มย่อย (3-4 คน) เป็นกิจกรรมที่น่าเบื่อ				

ตอนที่ 2 กิจกรรมการอภิปรายและการโต้แย้งภายในกลุ่มย่อย (ต่อ)

ข้อ	ข้อความ	เห็นด้วย อย่างยิ่ง	เห็นด้วย	ไม่เห็น ใจ	ไม่เห็น ด้วย	ไม่เห็น ตัวอย่าง
3	ถ้าได้รับมอบหมายงานกลุ่ม ฉันจะอภิปรายเพื่อวางแผนการทำงาน					
4	หลังจากกิจกรรมการโต้แย้งกับเพื่อนเกี่ยวกับวรรณคดีไทย ฉันได้รับแนวคิดหลากหลาย					
5	การอภิปรายในกลุ่มย่อย (3-4 คน) ทำให้ฉันกระตือรือร้นใน การเรียนวรรณคดีไทย					
6	ฉันหลีกเลี่ยงการวิเคราะห์คุณค่าของวรรณคดีไทยในด้านลบ					
7	กิจกรรมการโต้แย้ง (ในชั้นเรียน) ไม่สามารถช่วยแก้ปัญหาจาก บทเรียนได้					
8	ระหว่างการอภิปราย ฉันรู้สึกสับสนเกี่ยวกับรวบรวมความคิดเพื่อ แก้ปัญหา					
9	เมื่อได้รับคำแนะนำจากเพื่อนเพื่อแก้ปัญหา ฉันจะวิเคราะห์ข้อดี และข้อจำกัดของคำแนะนำเหล่านั้นเสียก่อน					

ขอบคุณในความร่วมมือ

Appendix 5 Questions for the focus group discussions

1. What is a problem in your study?
2. How do you understand your problem clearly?
3. How do you solve a problem?
4. Do you prefer to solve a problem without any suggestions?
5. What will you do after you find a solution?
6. What learning activity should Thai undergraduates learn?
7. What activity do you enjoy learning about Thai literature?
8. How do you feel when you discuss and debate about Thai literature?
9. What learning activity can you apply to solve a problem?
10. How can you apply the learning activity (9) to solve a problem?

(Thai version)

คำถามประกอบการสัมภาษณ์

๑. ปัญหาการเรียนของนักศึกษามีอะไรบ้าง
๒. นักศึกษาเข้าใจปัญหาอย่างชัดเจนได้อย่างไร
๓. นักศึกษาแก้ปัญหาอย่างไร
๔. นักศึกษาแก้ปัญหาด้วยตนเองโดยไม่ขอคำแนะนำจากผู้อื่นหรือไม่
๕. หลังจากพบแนวทางการแก้ปัญหา นักศึกษาดำเนินการอย่างไร
๖. การสอนในชั้นเรียนควรมีกิจกรรมใดบ้าง
๗. การเรียนวรรณคดีด้วยกิจกรรมใดบ้างที่ทำให้นักศึกษาารู้สึกสนุก
๘. กิจกรรมการอภิปรายและโต้แย้งเกี่ยวกับวรรณคดีทำให้นักศึกษารู้สึกอย่างไร
๙. กิจกรรมใดในการเรียนวรรณคดีที่สามารถนำมาปรับใช้กับการแก้ปัญหาได้
๑๐. นักศึกษานำกิจกรรมในข้อ ๙ มาปรับใช้เพื่อแก้ปัญหาอย่างไร

Appendix 6 The participant information sheet and consent form

Participant Information Sheet

Hello, my name is Petch Wijitnawin. I am a PhD student at Institute of Education, School of Social Sciences, Nottingham Trent University, UK. I am doing the research project which relates to learn about Thai literature by using the Structured Academic Controversy Model to improve the problem solving skills of undergraduates. You are invited to take part this research. If you are interested in the research's participation, please read the below information which makes you understand the participant involvement.

What is the purpose of this project?

The purpose is to evaluate the Structured Academic Controversy Model to see its impact on the problem-solving skills of undergraduates undertaking a Thai literature course.

Why have you been invited to take part?

Eighty students in the Bachelor of Education programme (Thai major), Capital City University are required for this research, so you are one of these students who are over eighteen years old, and learn about Thai literature.

Do you have to take part?

Your participation is entirely voluntary. Although supporting students' attendance is given by Faculty of Education, Capital City University, you can withdraw from this project without any reason after it has taken place. Also, your participation and withdrawal do not effect on your enrolment and grade in any classes. If you wish to withdraw, please notify me within 28 days of data collection points, and no data will be used. During your participation, you are free to deny any questions for the focus group interview and assignments.

What will participants (students) do in this project?

These eighty students will randomly be divided into group A and B, each of which comprises forty students. Group A will be taught by using the Structured Academic Controversy Model, and group B will be taught by using the conventional instruction. Before learning about Thai literature, both groups will be tested their problem-solving skills and attitude towards learning about Thai literature and the problem resolution. Besides, eight students of each group will randomly be interviewed by using audio-recording. These two groups will be tested again after learning. Also, these eight students of each group will be interviewed. Both groups (eighty students) will be

assigned to do individual and group worksheets during learning about Thai literature. They will also be observed by using the teaching record and the group observation record.

Are anonymity and confidentiality guaranteed?

Of course, name and ID of all students will be replaced by pseudonyms and coding. They will be used to protect individual's identity. All data of these students will be stored anonymously and safely during undertaking this project by password protection. The password is changed every 12 weeks. Only I and my supervisory team (Director of Studies and Co-supervisor) will have access to the data. At the end of the project, all participant information will completely be destroyed.

How long will you take part?

Eighty students will learn about Thai literature 1 period (100 minutes) per week total of 14 periods. Testing and interviewing will be included within these 14 weeks.

What are advantages of the participation?

You can improve the understanding of classic Thai literature which is useful for Thai teacher in secondary education. Moreover, learning by using the Structured Academic Controversy Model will be the opportunity to share the literary knowledge and viewpoints with friends. Also, you will apply ideas of Thai literature for the problem resolution which will develop your experiences in terms of learning about Thai literature.

Contacts for further information

If you have any questions, please feel free to contact me at the following address:

Mr. Petch Wijitnawin

Email: petch.wijitnawin022015@my.ntu.ac.uk

Institute of Education, School of Social Sciences,

Cilfton Campus, Nottingham Trent University, NG11 8NS, UK

Director of Studies: Dr. Krishan Sood

(Thai version)

ข้อมูลเบื้องต้นสำหรับนักศึกษาที่ประสงค์ร่วมโครงการวิจัย

กระผม นายเพชร วิจิตรนาวิน นักศึกษาระดับปริญญาเอก ณ สถาบันศึกษาศาสตร์ คณะสังคมศาสตร์ มหาวิทยาลัย Nottingham Trent University ประเทศสหราชอาณาจักร ซึ่งกำลังดำเนินการวิจัยเกี่ยวกับการสอนวรรณคดีไทยโดยใช้รูปแบบการสอนความขัดแย้งทางวิชาการ (the Structured Academic Controversy Model) เพื่อพัฒนาทักษะการแก้ปัญหาของนักศึกษาในระดับปริญญาตรี ทั้งนี้ ได้จัดทำรายละเอียดเบื้องต้น เพื่อประกอบการตัดสินใจเข้าร่วมเป็นส่วนหนึ่งของกลุ่มประชากรในงานวิจัยนี้

วัตถุประสงค์

เพื่อประเมินรูปแบบการสอนความขัดแย้งทางวิชาการ (the Structured Academic Controversy Model) ที่มีผลต่อทักษะการแก้ปัญหาของนักศึกษาในหลักสูตรศึกษาศาสตรบัณฑิตที่ศึกษาในวิชาวรรณคดีไทย

เหตุใดนักศึกษาจึงได้รับการเชิญเข้าร่วมงานวิจัยในครั้งนี้

นักศึกษจำนวน 80 คน ในหลักสูตรศึกษาศาสตรบัณฑิตถูกเชิญเข้าร่วม ทั้งนี้ ทุกคนมีคุณสมบัติพื้นฐานคือ มีอายุเกิน 18 ปี บริบูรณ์ และกำลังศึกษาในวิชาวรรณคดีไทย

นักศึกษาจำเป็นต้องเข้าร่วมงานวิจัยนี้หรือไม่

การเข้าร่วมงานวิจัยนี้เป็นจิตอาสา กล่าวคือ ไม่บังคับการเข้าร่วมงานวิจัยนี้แต่อย่างใด ทั้งนี้ หากนักศึกษาตัดสินใจเข้าร่วมงานวิจัย นักศึกษายังคงสามารถยกเลิกการตัดสินใจนี้ได้ภายหลัง โดยการตัดสินใจของนักศึกษาจะไม่มีผลกระทบต่อผลการเรียนในทุกวิชา หากปรารถนาจะยกเลิกการเข้าร่วมงานวิจัยนี้โปรดแจ้งแก่ผู้วิจัย คือ นายเพชร วิจิตรนาวิน ภายในระยะเวลา 28 วัน ของการเก็บรวบรวมข้อมูลวิจัย ซึ่งข้อมูลของนักศึกษาจะไม่ถูกนำมาใช้ในงานวิจัยนี้แต่อย่างใด นอกจากนี้ ในระหว่างการเก็บรวบรวมข้อมูล นักศึกษามีสิทธิ์ที่จะไม่ตอบคำถามในการสนทนากลุ่มและ/หรือไม่ร่วมกิจกรรมใด ๆ ตามความสมัครใจ

นักศึกษาจะได้ร่วมกิจกรรมใดบ้าง

นักศึกษจำนวน 80 คน จะถูกแบ่งออกเป็นกลุ่ม A และ B อย่างละเท่า ๆ กัน นักศึกษากลุ่ม A จะเรียนโดยรูปแบบการสอนความขัดแย้งทางวิชาการ (the Structured Academic Controversy Model) ส่วนนักศึกษากลุ่ม B จะเรียนด้วยวิธีการสอนแบบดั้งเดิม นักศึกษาทั้งสองกลุ่มจะได้ทำแบบทดสอบทักษะการแก้ปัญหาและแบบวัดทัศนคติก่อนและหลังการทดลอง นอกจากนี้ นักศึกษจำนวน 8 คน

ของแต่ละกลุ่ม จะถูกสุ่มเพื่อให้เข้าร่วมการสนทนากลุ่ม ก่อนและหลังการทดลองเช่นกัน โดยการสนทนากลุ่มนี้ ความคิดเห็นของนักศึกษาจะถูกบันทึกลงบนกระดาษและบันทึกด้วยเครื่องบันทึกเสียง ส่วนการร่วมกิจกรรมในชั้นเรียน นักศึกษาจะได้ทำกิจกรรมการเรียนรู้ต่าง ๆ ทั้งกลุ่มและรายบุคคล รวมทั้งใบงาน ข้อมูลของนักศึกษาจะถูกบันทึกเพิ่มเติมลงในแบบบันทึกในแผนการจัดการเรียนรู้

ข้อมูลส่วนบุคคลของนักศึกษาจะไม่ถูกระบุและเป็นความลับหรือไม่

แน่นอนว่าข้อมูลชื่อ นามสกุล รหัสนักศึกษา และข้อมูลใด ๆ ที่นักศึกษาให้แก่การวิจัยในครั้งนี้จะถูกรักษาเป็นความลับโดยถูกเปลี่ยนไปเป็นนามแฝงและรหัสที่สร้างขึ้นใหม่ ทั้งนี้ เพื่อป้องกันสิทธิส่วนบุคคล ข้อมูลทั้งหมดจะถูกเก็บอย่างเป็นความลับและปลอดภัยด้วยระบบพาสเวิร์ดซึ่งถูกเปลี่ยนทุก 12 สัปดาห์ ข้อมูลดังกล่าวมีเพียงผู้วิจัยและอาจารย์ที่ปรึกษาที่สามารถเข้าถึงได้ เมื่องานวิจัยนี้เสร็จสิ้น ข้อมูลของนักศึกษาทั้งหมดจะถูกทำลาย

การเข้าร่วมการวิจัยมีระยะเวลานานเท่าใด

นักศึกษาที่ประสงค์เข้าร่วมการวิจัยจำนวน 80 คน จะเข้าเรียนวิชาวรรณคดีจำนวน 14 คาบเรียน แต่ละคาบเรียนมีระยะเวลาประมาณ 100 นาที รวมระยะเวลาทั้งสิ้น 14 สัปดาห์

ประโยชน์ที่ได้รับจากการเข้าร่วมงานวิจัยในครั้งนี้มีอะไรบ้าง

นักศึกษาจะได้รับการพัฒนาการเรียนรู้อรรถคดีไทยซึ่งเป็นประโยชน์ต่อการนำไปปรับใช้ในการสอนวรรณคดีในระดับชั้นมัธยมศึกษา นอกจากนี้ การเรียนรู้ด้วยรูปแบบการสอนความขัดแย้งทางวิชาการนี้จะเพิ่มโอกาสในการเรียนรู้และประสบการณ์เกี่ยวกับกิจกรรมที่พัฒนาทักษะการแก้ปัญหา

ติดต่อข้อมูลเพิ่มเติม

หากนักศึกษามีข้อคำถามใด โปรดติดต่อผู้วิจัยจากข้อมูลดังต่อไปนี้

นายเพชร วิจิตรนาวิน

Email: Petch_wijitnawin@yahoo.com

Institute of Education, School of Social Sciences,

Clifton Campus, Nottingham Trent University, NG11 8NS, UK

Director of Studies: Dr. Krishan Sood

Consent form

Research title: The evaluation of a theoretical Structured Academic Controversy Model to see its impact on the problem solving skills of undergraduates undertaking a Thai literature course

Please read and confirm your consent to be conducted for this research by signing and dating this form

1. I confirm that I have read the Participant Information Sheet. The purpose and overview of the project have been explained, and I have had the opportunity to ask questions about this research.
2. I understand that I have been invited to take part because I am over eighteen years old, and I am a student in the Bachelor of Education programme (Thai major), Faculty of Education, Capital City University in Bangkok, Thailand.
3. I understand that my participation is purely voluntary, and I am free to withdraw from the research at any time without giving any reason. Furthermore, my attendance and withdrawal do not effect on the enrolment and grade in any classes.
4. I give permission for using audio-recording during focus group interview. The audio will be destroyed at the end of this research.
5. I understand that the confidentiality and anonymity are guaranteed during undertaking the research. Only the researcher (Mr. Petch Wijitnawin) and his supervisory team (Director of Studies and Co-supervisor) will have access the data. At the end of the project, all of my participant information will be destroyed.
6. I agree to participate in this research.

(.....) (.....) (.....)
Name of participant Date Signature

(.....) (.....) (.....)
(Name of researcher) Date Signature

Two copies: One to be kept by the participant and one copy to be kept by the researcher.

(Thai version)

แบบฟอร์มคำอนุญาต

หัวข้อวิจัย

The evaluation of a theoretical Structured Academic Controversy Model to see its impact on the problem-solving skills of undergraduate students undertaking a Thai literature course

โปรดอ่านและยืนยันการเข้าร่วมการวิจัยในครั้งนี้โดยลงนามและวันที่ยินยอมเข้าร่วมลงในแบบฟอร์มนี้

1. ข้าพเจ้ายืนยันว่าได้อ่าน **ข้อมูลเบื้องต้นสำหรับนักศึกษาที่ประสงค์ร่วมโครงการวิจัย** ซึ่งได้แจ้งวัตถุประสงค์และภาพรวมของการวิจัยนี้ ตลอดจนข้าพเจ้าได้มีโอกาสซักถามเพื่อให้เข้าใจอย่างชัดเจน
2. ข้าพเจ้าเข้าใจว่าการเข้าร่วมการวิจัยนี้ เนื่องด้วยข้าพเจ้ามีอายุเกินกว่า 18 ปี และเป็นนักศึกษาในหลักสูตรศึกษาศาสตรบัณฑิต ของมหาวิทยาลัยแห่งหนึ่งในกรุงเทพมหานคร
3. ข้าพเจ้าเข้าร่วมงานวิจัยนี้ด้วยการเป็นจิตอาสา และมีสิทธิ์ยกเลิกการเข้าร่วมงานวิจัยนี้ได้เมื่อใดก็ตามโดยไม่ต้องแสดงเหตุผล ทั้งนี้ การเข้าร่วมและยกเลิกการเข้าร่วมการวิจัยในครั้งนี้ไม่มีผลกระทบต่อภาระเรียนและคะแนนในทุกรายวิชา
4. ข้าพเจ้าอนุญาตให้บันทึกเสียงขณะสนทนากลุ่ม ข้อมูลที่ถูกบันทึกจะถูกทำลายหลังเสร็จสิ้นการวิจัย
5. ข้าพเจ้าเข้าใจว่าข้อมูลต่าง ๆ ที่เป็นส่วนตัวจะเป็นความลับและไม่ระบุถึงตัวของข้าพเจ้า โดยได้รับการยืนยันอย่างชัดเจน มีเพียงผู้วิจัย คือ นายเพชร วิจิตรนาวิณ และ คณาจารย์ที่ปรึกษาที่สามารถเข้าถึงข้อมูลเหล่านี้ได้ และเมื่องานวิจัยเสร็จสิ้น ข้อมูลของข้าพเจ้าจะถูกทำลาย
6. ข้าพเจ้ายินดีเข้าร่วมการวิจัยในครั้งนี้

(.....)	(.....)	(.....)
ชื่อ-สกุลของผู้เข้าร่วมการวิจัย	วันที่	ลายเซ็น
(.....)	(.....)	(.....)
ชื่อ-สกุลของผู้วิจัย	วันที่	ลายเซ็น

เอกสารฉบับนี้มีจำนวน 2 ชุด ชุดหนึ่งให้ผู้เข้าร่วมวิจัยเก็บไว้ อีกชุดหนึ่งผู้วิจัยเป็นผู้เก็บไว้

Appendix 7 Ethical clearance approval letter

2017-5-18

จดหมาย - petch.wijitnawin022015@my.ntu.ac.uk

Cali, Annabel

ตอบกลับ |

จ. 15/5, 11:21

Wijitnawin, Petch 02 2015(PGR)

Ethical application form ...

/

276 กิโลไบต์

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แสดงทั้งหมด สิ่งที่แนบมา 19 รายการ (15 เมกะไบต์)
ดาวน์โหลดทั้งหมด
บันทึกทั้งหมดไปยัง OneDrive - Nottingham Trent University

Message sent on behalf of the Chair of the College Research Ethics Committee

Dear Petch

Thank you for the recent submission of your application(No. 2017/96) to the College Research Ethics Committee (CREC) on 24 April 2017 requesting ethical clearance for the project entitled: *The evaluation of a theoretical Structured Academic Controversy Model to see its impact on the problem solving skills of undergraduates undertaking a Thai literature course* and please accept our apologies for the delay in getting back to you.

We are pleased to inform you that the CREC was happy to confirm that in its judgement there were no outstanding ethical concerns that required further discussion or exploration prior to data collection and your application has been approved.

The committee would like to wish you well in the completion of your project.

Sent on behalf of K Wheat
Chair CREC

Annabel Cali
Research Administrator
College Research Support Team
Business, Law and Social Sciences
Nottingham Trent University
50 Shakespeare Street
Nottingham
NG1 4FQ
Direct Tel: +44 (0)115 848 8157
Fax: +44 (0)115 848 8700
Location: Chaucer Room 4704
E-mail: annabel.cali@ntu.ac.uk
Website: www.ntu.ac.uk

Appendix 8 Transcriptions resulting from the focus group discussions

Quotations from chapter 5 (Data analysis)

5.3.1.1 Selecting and evaluating appropriate solutions

We were quite clear how to solve a problem because of group discussion throughout the process of selecting and evaluating appropriate solutions. Everyone was able to share his or her opinions, so we considered the strengths and weaknesses within each solution.

(Nikom, pseudonym,
a Buddhist male student from the north-east)

ผมเข้าใจได้ว่าจะแก้ปัญหาอย่างไรจากการอภิปรายกับเพื่อน ๆ ด้วยการคัดเลือกและประเมินแนวทางการแก้ปัญหา ทั้งนี้ ทุกคนในกลุ่มช่วยกันแสดงความคิดเห็นทั้งข้อดีและข้อจำกัดของแต่ละแนวทาง

(นิคม นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

I needed to wait to listen to different opinions provided by group members. It was time-consuming to be clear during group discussion and negotiation. If I did not understand their individual perspective, it would be difficult to create our group consensus.

(Pimjai, pseudonym,
a Muslim female student from the south)

ต้องรอฟังความคิดเห็นจากเพื่อนในกลุ่มก่อนค่ะ ก็ใช้เวลา
น้อยกว่าที่จะคุยตกลงกันได้ ถ้าไม่ทำอย่างนี้แล้วก็จะหา
มติหรือข้อสรุปของกลุ่มได้ลำบากค่ะ

(พิมพ์ใจ นามสมมุติ
นักศึกษาหญิงมุสลิมจากภาคใต้)

5.3.1.2 Advice and decision making

Suggestions provided by parents were always good because they had encountered problems before me. In other words, they had prior experience that could support my decision... They were the first people who were able to give me advice.

(Wanee, pseudonym,
a Buddhist female student from the north-east)

คำแนะนำจากพ่อแม่เป็นสิ่งดีค่ะ เพราะเขามีประสบการณ์
หรือเคยอาบน้ำร้อนมาก่อน ดังนั้น เขาก็บอกได้ว่าควรทำ
อย่างไร สำหรับหนูคนแรกที่คิดถึงก็คือพ่อกับแม่

(วานี นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

5.3.1.2 Advice and decision making (Cont.)

Friends were my first consultants to give me suggestions. On account of our friendship, it was easy to discuss with them. If I talked to my parents, they might say ‘do not give up’, but they were not able to help me find a solution.

(Somsri, pseudonym,
a Muslim female student from the south)

คนแรกที่นึกถึงเวลามีปัญหาคือเพื่อนค่ะ เพราะมีอะไรก็คุยกันง่าย เป็นเพื่อนกันแล้วไงคะ ส่วนพ่อแม่ ถ้าไปปรึกษาก็จะพูดแค่ว่าสู้ ๆ นะลูก แต่ไม่สามารถช่วยอะไรเราได้จริงๆ

(สมศรี นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

5.3.1.3 Happiness and task-fulfilment

If I always focused on the goal or task-fulfilment, I could not do my work very well because I would be worried about it. In other words, I would be so stressed during the task.

(Somphop, pseudonym,
a Buddhist male student from the north-east)

ถ้าผมมัวแต่คิดว่างานจะเสร็จเมื่อไหร่ ผมก็เป็นกังวล ทำให้ทำงานไม่เสร็จสักที แถมเครียดเวลาลงมือทำอีกด้วย

(สมภพ นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

I felt worried until the submission deadline or receiving results provided by a teacher. After that, I would be happy.

(Penporn, pseudonym,
a Buddhist female student from the central area)

ก็กังวลไปจนกว่าจะส่งงานหรือรู้ผลคะแนนค่ะ ถ้ารู้แล้วก็ค่อยสบายใจขึ้นหน่อย

(เพ็ญพร นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคกลาง)

5.3.1.4 The vagueness of creating problem-solving ideas

What kind of a problem was it? If it was not identified clearly, I could not find a suitable solution. In my group task, I was often confused by the term ‘problem’.

(Suda, pseudonym,
a Buddhist female student from the south)

ต้องรู้ก่อนคะว่ามันคือปัญหาประเภทไหน ถ้าไม่ดูให้เข้าใจก็อาจแก้ไขลำบาก นี่แหละค่ะ หลายครั้งที่สับสนก็เพราะอย่างนี้

(สุดา นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคใต้)

5.3.1.4 The vagueness of creating problem-solving ideas (Cont.)

I was not sure how academic content, especially in the upper secondary school would be applied to solve problems in everyday life. Imagine that I would like to buy some snacks in a convenience store; would I have to utilise mathematics knowledge such as calculus or logarithms to buy them?

(Chote, pseudonym,
a Muslim male student from the central area)

ผมไม่แน่ใจว่าความรู้ที่เรียนตอน ม.ปลาย เอามาใช้แก้ปัญหาอย่างไร เช่น ถ้าหากจะซื้อขนมตามร้านสะดวกซื้อทั่วไป ผมจำเป็นต้องใช้ความรู้วิชาเลขอย่างแคลคูลัสหรือลอการิทึมหรือเปล่า

(โชติ นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคใต้)

If I forgot to bring a calculator to a mathematics test, would a teacher allow me to use my personal mobile phone instead of the calculator?

(Pittaya, pseudonym,
a Buddhist female student from the north-east)

ถ้าลืมเอาเครื่องคิดเลขมา แล้วแก้ปัญหาด้วยการใช้โทรศัพท์ที่มีโปรแกรมคำนวณอยู่ แบบนี้ครูจะยอมอนุญาตมั๊ยคะ

(พิทยา นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

What about contacting a teacher via mobile phone Apps such as WhatsApp, Line, Facebook or Messenger? Sometimes, I would like to ask a few questions about an assignment, but I was not sure whether I should do it? Is my solution acceptable?

(Niti, pseudonym,
a Muslim male student from the south)

ถ้าติดต่อกับครูหรืออาจารย์ผ่านโปรแกรมทางโทรศัพท์ เช่น โปรแกรมวอทส์แอฟ ไลน์ เฟสบุค หรือเมสเซนเจอร์ จะได้มั๊ยครับ เพราะบางครั้งอยากสอบถามเรื่องงานที่อาจารย์เขาสั่ง แต่ก็ไม่รู้ว่าวีธีนี้จะทำได้มั๊ย

(นิตี นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคใต้)

5.3.2.1 The aim of the study

We were B.Ed. students. The aim of reading Thai literature was to utilise it in the field experience and future career as schoolteachers of a Thai subject. It was quite clear that was the reason we had to read Thai literature.

(Revadee, pseudonym,
a Buddhist female student from the north-east)

ก็เพราะเราเรียนศึกษาศาสตร์ ดังนั้น เราอ่านวรรณคดีก็เพื่อเอาไปใช้ตอนฝึกสอนแล้วก็ตอนไปเป็นครูภาษาไทยในอนาคต เป้าหมายนี้มันชัดของมันอยู่แล้ว

(เรวดี นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

5.3.2.1 The aim of the study (Cont.)

Personally, I think that Thai students read Thai literature because of cultural preservation and the appreciation of aesthetic language, such as figures of speech.

(Wanee, pseudonym,
a Buddhist female student from the north-east)

ส่วนตัวน่าจะคะ หนูว่าเราเรียนวรรณคดีก็เพราะเอาไว้เพื่ออนุรักษ์วัฒนธรรมไทย แล้วก็ซาบซึ้งในความงามทางภาษา อย่างเช่น ภาพพจน์ในวรรณคดี

(วานี นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

I had no idea that Thai literature was beneficial to B.A. students with regard to preparation for their future career ...I only had an answer for B.Ed. students (Thai major).

(Arpha, pseudonym,
A Muslim female student from the south)

ไม่รู้จริง ๆ ค่ะว่าอย่างเพื่อนที่เรียนวรรณคดีไทยในหลักสูตรของมนุษยศาสตร์เขาเอาไปใช้อะไรในอนาคต หนูรู้แต่อย่างพวกเราศึกษาศาสตร์ที่เอาไว้สอน

(อรภา นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

5.3.2.2 Instant acquisition: learning about Thai literature via the Internet

If I read a hard copy of Thai literature such as Rammakean and Chun chang Chun phan, I could spend more than one month trying to understand the theme and main idea. Watching these literature titles via YouTube was much easier and faster than reading through a hard copy.

(Wittayakorn, pseudonym,
a Buddhist male student from the south)

ถ้าอ่านรามเกียรติ์หรือขุนช้างขุนแผนจากเล่มที่เป็นกระดาษก็ใช้เวลานาน เป็นสัปดาห์หรือหลายเดือน แต่ถ้าดูยูทูปก็ง่ายและเร็วกว่า

(วิทยากร นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคใต้)

Within the video clip which comprised Thai literature content, its presentation was very interesting. I was able to focus on the video clip until the presentation was finished. This was very different to my prior experience when I listened to a lecture in a Thai literature classroom.

(Yada, pseudonym,
a Muslim female student from the central area)

วรรณคดีที่ได้ดูจากวิดีโอคลิปมีเนื้อหาที่น่าสนใจ หนูดูจนจบเลยคะ มันต่างจากที่เคยเรียน ๆ มา คือ แบบ นั่งฟังอาจารย์บรรยายทั้งคาบ

(ญาดา นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคกลาง)

5.3.2.2 Instant acquisition: learning about Thai literature via the Internet (Cont.)

It was great to watch Thai literature via the Internet, but I easily forgot the details. Please do not ask me about the author's name, his or her biography, vocabulary and well-known poems because I have no idea.

(Oradee, pseudonym,
a Muslim female student from the central area)

ดูวรรณคดีจากวิดีโอคลิกก็น่าสนใจ แต่อย่าถามถึงรายละเอียดตัวละคร มั่นลิ้ม เช่น ชื่อคนแต่ง ประวัติผู้แต่ง คำศัพท์ หรือวรรคทอง หนูไม่ได้จำเลย

(อรดี นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคกลาง)

5.3.2.3 The feeling of 'them and us' during reading Thai literature

I had absolutely no idea what the lecturer was talking about - Buddhist principles and philosophy and tales of gods - in the Thai literature class. I have not studied this in school. Therefore, I just kept quiet in class.

(Pimjai, pseudonym,
a Muslim female student from the south)

หนูไม่เข้าใจเลยว่าอาจารย์เขาพูดเรื่องอะไรเกี่ยวกับหลักธรรมะ เช่น หลักธรรม ปรัชญา หรือตำนานเทพเจ้า หนูไม่เคยรู้อะไรพวกนี้มาก่อนเลย ตอนอยู่ในห้องก็เลยเงียบตลอด

(พิมพ์ใจ นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

When the Chaophraya River was described within Thai literature, I understood it. To be honest, I did know about it, but I did not appreciate it. In contrast, I did appreciate the Khong River in the Nongkai province, which was near my hometown. It was very impressive.

(Chartsak, pseudonym,
a Buddhist male student from the north-east)

แม่น้ำเจ้าพระยาก็รู้จักครับ ที่เคยอ่านเจอในวรรณคดี อ่านแล้วมันก็ไม่อิน (ประทับใจ) ครับ ต่างกันนะ ถ้าบรรยายถึงแม่น้ำโขงที่หนองคาย ซึ่งเป็นบ้านเกิดผม อันนี้มันอิน (ประทับใจ) กว่า

(ชาติศักดิ์ นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

Within my family, I knew about these sensitive topics such as avoiding eating any food containing pork and avoiding touching a dog. They were acceptable for reading in Thai literature because of preparations for examinations. However, my parents did not want to mention the topics.

(Somsri, pseudonym,
a Muslim female student from the south)

ในครอบครัวเรารู้ ๆ กันแหละค่ะ แต่ไม่พูดหัวข้อเหล่านี้ เช่น เรื่องกินหมู หรือสัมผัสกับสุนัข ถ้าอ่านในวรรณคดีก็พอรับได้ค่ะ เพราะเอาความรู้เกี่ยวกับเรื่องไปสอบข้อสอบ แต่ที่บ้านอย่างพ่อกับแม่เขาก็ไม่พูดถึง

(สมศรี นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

5.3.2.3 The feeling of ‘them and us’ during reading Thai literature (Cont.)

Conventionally, my teachers have not talked about topics such as erotic scenes, homosexuality in Thai literature. There was no explanation. It was peculiar to talk about it in the classrooms

เรื่องพวกนี้ครูไม่เคยพูดถึงครับ อย่างบทกวีจรรยา หรือรัก
ร่วมเพศในวรรณคดี คือ ไม่ต้องอธิบายกัน ถ้าพูดใน
ห้องเรียนก็ดูจะแปลก ๆ หน่อย

(Nikom, pseudonym,
a Buddhist male student from the north-east)

(นิคม นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

5.3.2.4 The practical application of Thai literature in everyday life situations

When analysing Thai literature themes and ideas, it should be associated with Buddhist principles such as ‘when you do a good thing, it will happen to you’. Readers were able to apply this idea according to the Thai literature title ‘Klong Loganit’ to solve moral problems in relation to honesty, helpfulness and forgiveness.

เวลาวิเคราะห์วรรณคดี อย่างวิเคราะห์แนวคิดสำคัญหรือ
คุณค่า ก็มักจะโยงกับหลักธรรมะ เช่น ทำดีได้ดี ทำชั่วได้
ชั่ว อย่างอ่านโคลงโลกนิติ ก็เอาคำสอนเหล่านั้นมาใช้
แก้ปัญหาเกี่ยวกับคุณธรรม เช่น ความสุจริต ความกรุณา
การให้อภัย

(Penporn, pseudonym,
a Buddhist female student from the central area)

(เพ็ญพร นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคกลาง)

I had a clear understanding when applying contemporary Thai literature to everyday life situations and problem resolution because I was able to understand the dialogue and settings easily.

ถ้าเป็นพวกวรรณกรรมหนูเข้าใจมากกว่าว่าเอามาปรับใช้
กับการแก้ปัญหาอย่างไร เพราะว่าเราคุ้นเคยทั้ง
บทสนทนาในเรื่องแล้วก็ฉากต่าง ๆ

(Oradec, pseudonym,
a Muslim female student from the central area)

(อรดี นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคกลาง)

5.3.3.1 Teaching methods offered to Thai undergraduate students

Discussion should refer to sharing opinions with each other. Although we could have different perspectives, we should finally be able to provide possible solutions or a group consensus.

การอภิปรายควรเป็นการแลกเปลี่ยนความคิดเห็นระหว่าง
กัน แม้ว่ามันจะได้มุมมองที่หลากหลาย แต่สุดท้ายแล้วก็
ต้องหาข้อสรุปหรือมติกลุ่มออกมา

(Suda, pseudonym,
a Buddhist female student from the south)

(สุดา นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคใต้)

5.3.3.1 Teaching methods offered to Thai undergraduate students (Cont.)

Rather than focusing on a winner or a loser, we needed to consider whether we had clear justification. Has our small group (as one team) addressed the question or discussion topic?

มากกว่าหาว่าใครเป็นผู้ชนะหรือผู้แพ้ เราต้องการฟังเหตุผล ว่าที่แสดงความคิดเห็นมานั้น สุดท้ายความคิดของกลุ่มได้ตอบคำถามหรือหัวข้อในการอภิปรายหรือไม่

(Somphop, pseudonym,
a Buddhist male student from the north-east)

(สมภพ นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

5.3.3.2 Group-work

I was willing to help my friends. We helped each other to complete the group task. If the group achieved, we would all achieve.

หนูยินดีช่วยเพื่อน ๆ เราต่างก็ช่วยงานกันและกัน หนูมองว่าถ้ากลุ่มทำงานได้สำเร็จ พวกเราทุกคนก็ประสบความสำเร็จไปด้วย

(Yada, pseudonym,
a Muslim female student from the central area)

(ยูดา นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคกลาง)

I met my friends in a few classes last semester, but we did not talk to each other. When we did a group task together, they were very nice and helpful.

บางคนเคยเห็นกันมาหลายคลาสแล้ว แต่ไม่เคยคุยกันเลย เพิ่งจะมาคุยกันเมื่อได้มาทำงานกลุ่มเดียวกัน ซึ่งทำให้รู้ว่า เขาก็อ้อหยาศัยดี ช่วยเหลือกันดี

(Somphop, pseudonym,
a Buddhist male student from the north-east)

(สมภพ นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

5.3.3.3 The interactions between teacher and student: students' proactive communication

I believed that teachers were knowledgeable. I thought that I could not answer their questions because I had little knowledge. I was also afraid of being incorrect. Therefore, I only kept silent and smiling in classrooms.

หนูเชื่อว่าครูเป็นผู้ทรงความรู้สูง เราไม่สามารถตอบคำถามเขาได้ เพราะเรามีความรู้น้อยกว่า แล้วก็รู้สึกกลัว ถ้าตอบผิด ดังนั้น ก็เลยได้แต่ยิ้ม ๆ ไป เงียบ ๆ ไป

(Pittaya, pseudonym,
a Buddhist female student from the north-east)

(พิทยา นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคตะวันออกเฉียงใต้)

5.3.3.3 The interactions between teacher and student: students' proactive communication (Cont.)

No, I did not want to ask a teacher any questions. I was afraid of the teacher's condemnation. In my opinion, a silent answer was appropriate at that time.

ไม่ค่ะ หนูไม่อยากตอบคำถามครู เพราะกลัวถูกดู ในความคิดของหนู เงียบไว้เป็นดีที่สุด

(Apha, pseudonym,
a Muslim female student from the south)

(อาภา นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

5.3.4.1 The image of studying on the B.Ed. programme

After graduating on the five-year B.Ed. programme, I expected to receive a teacher licence. I would like to be a schoolteacher. I would get welfare provided to me and my parents. Additionally, after retirement, I would have pension given by the Thai government.

ถ้าเรียนจบครูแล้ว ก็หวังว่าจะได้ไปประกอบวิชาชีพครู เพราะผมอยากเป็นครู เพราะว่าเราจะได้สวัสดิการต่าง ๆ ให้ทั้งเราและพ่อแม่ แลผมยังได้บำนาญอีกตอนเกษียณ

(Niti, pseudonym,
a Muslim male student from the south)

(นิตี นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคใต้)

I had no idea how I should prepare for applying my skills in teaching field experience. In this time, I have focused on my learning responsibility within this semester. Moreover, I was still unclear about teaching the Thai language and literature in a school. I would probably understand a few years' time.

ไม่รู้เลยว่าต้องเตรียมตัวอย่างไรตอนไปฝึกสอน ตอนนี้หนูแค่รับผิดชอบวิชาที่เรียนในเทอมนี้ อื่นอย่าง ก็ไม่แน่ใจว่าเวลาสอนจริง ๆ ในวิชาภาษาไทย วรรณคดีไทยในโรงเรียนต้องทำอะไร ปีต่อ ๆ ไปคงจะรู้เองแหละค่ะ

(Penporn, pseudonym,
a Buddhist female student from the central area)

(เพ็ญพร นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคกลาง)

5.3.4.2 The B.Ed. programme (Thai major) as a second choice

I passed the entrance exam provided by a university in Bachelor of Engineering. However, I did not have enough money to pay tuition fees and student accommodation. As a result, I changed my mind and decided to study on the B.Ed. programme at Capital City University because I would like to save money for my family.

ผมสอบผ่านวิศวะนะครับ แต่เงินไม่พอจ่ายค่าเทอมกับค่าหอพัก ก็เลยเปลี่ยนใจมาเรียนศึกษาศาสตร์ที่นี่ (มหาวิทยาลัยแห่งหนึ่งในกรุงเทพฯ) เพราะว่าจะได้ช่วยที่บ้านประหยัดเงิน

(Nikom, pseudonym,
a Buddhist male student from the north-east)

(นิคม นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

My field of study in the upper secondary education was mathematics and science. I have not learned about the analysis of Thai grammar, Pali-Sanskrit or the history of Thai literature. However, I prefer to study the Thai major because the Thai language is my mother tongue.

ผมจบสายวิทย์-คณิตฯ ตอนมัธยมมา ก็เลยไม่ค่อยรู้เกี่ยวกับพวกไวยากรณ์ภาษาไทย บาลี-สันสกฤต และประวัติศาสตร์คดี แต่ยังไงก็เลือกเรียนเอกไทย เพราะมันเป็นภาษาไทย เราพอรู้เรื่อง

(Chartsak, pseudonym,
a Buddhist male student from the north-east)

(ชาติศักดิ์ นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

5.3.4.3 Learning opportunities for B.Ed. students: pedagogy and the educational system

I did not receive any feedback after submitting assignments. I only got my grades one month later after the final examination.

ไม่เคยได้รับฟีดแบคหลังส่งงานเลยค่ะ รู้แค่เกรดหนึ่งเดือนหลังจากสอบไปแล้ว

(Suda, pseudonym,
a Buddhist female student from the south)

(สุดา นามสมมุติ
นักศึกษหญิงชาวมุสลิมจากภาคใต้)

I have understood the process of re-enrolment and re-examination clearly. They were not required for me at this time. Rather, I would like to know how I should prepare to pass the exams this semester.

ผมเข้าใจเรื่องลงทะเบียนซ้ำและสอบซ่อมดีครับ แต่ยังไม่ได้ต้องการตอนนี้ คือ ผมอยากได้คำแนะนำมากกว่าจะสอบผ่านแต่ละเทอมได้อย่างไร

(Chote, pseudonym,
a Muslim male student from the central area)

(โชติ นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคกลาง)

Quotations from chapter 6 (Discussion)

6.1.1.1 The application of academic knowledge to solve everyday life problems

I can imagine solving mathematics and science problems in the classroom. However, I am not sure, apart from in examinations, how I can apply the academic knowledge outside classroom. I have not received clear explanations from the teachers.

ผมพอจินตนาการได้ว่าจะเอาความรู้ที่เรียนไปแก้ โจทย์เลขหรือโจทย์วิทยาศาสตร์อย่างไร แต่นอกเหนือจาก นั้นไม่แน่ใจว่าเอาไปใช้อย่างไร แถมครูก็ไม่ได้อธิบายไว้ให้ ชัดเจน

(Chote, pseudonym,
a Muslim male student from the central area)

(โชติ นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคกลาง)

6.1.1.2 Group preference

I have been familiar with group preference since I was a school student. I was happy to undertake group assignments with my classmates who came from Nong Kai province, which is my domicile origin. However, we (as group members) sometimes found it difficult to provide a new idea for completing a group task regarding problem resolution.

กลุ่มแบบจัดกันเองนี่คุ้นเคยกับกิจกรรมนี้มาตั้งแต่ใน โรงเรียนแล้ว ก็มีความสุขดีนะครับ อย่างเพื่อน ๆ ในกลุ่ม ก็คนบ้านเดียวกัน มาจากหนองคาย แต่ก็ บางครั้ง ความคิดใหม่ ๆ ที่เอาไว้ใช้กับกิจกรรมแก้ปัญหาไม่ค่อยมี

(Somphop, pseudonym,
a Buddhist male student from the north-east)

(สมภพ นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคใต้)

6.1.1.3.1 Respect for adults

My answer might be wrong if I replied to a teacher in the class. In my prior experience, after giving the answer, I received condemnatory comments from a teacher. Hence, I just keep silent and have gone back to find answers by myself.

คำตอบของหนูอาจจะผิดก็ได้ ถ้าตอบออกไป จาก ประสบการณ์นะคะ หนูเคยถูกครูดุดหลังจากตอบคำถาม จากนั้นก็เลยเงียบอย่างเดียว อยากรู้อะไรก็หาคำตอบ ค้นคว้าเอง

(Apha, pseudonym,
a Muslim female student from the south)

(อภา นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

6.1.1.3.2 The appropriateness of ‘time and place’

To solve an urgent problem in relation to my study, could I contact a lecturer via Facebook or any mobile phone apps? Moreover, if I would like to consult with a university lecturer, but he or she was not in the office, how should I write a message to the lecturer with regard to the use of the appropriate Thai register?

ถ้าแบบมีเรื่องด่วนจี๋ ผมจะติดต่ออาจารย์ทางเฟซบุ๊ก หรือจากแอปฯ ที่อาจารย์เขามีได้มั้ยครับ อีกร้อยอย่าง เวลาไปติดต่ออาจารย์แล้วเขาไม่อยู่เนี่ย เราจะเขียนบอกยังไงให้มันเหมาะสม นี่ก็เป็นข้อสงสัย

(Niti, pseudonym,
a Muslim male student from the south)

(นิตี นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคใต้)

6.1.2.1 The educational system: re-enrolment and re-examination

The educational system of re-enrolment and re-examination is beneficial because I sometimes missed an exam and was not available to attend B.Ed. classes. Hence, if I failed an exam, I would not be worried too much because I can re-enrol and resit the exam every academic semester.

ลงทะเบียนซ้ำกับสอบซ่อมนี่ก็ดีนะครับ เอาไว้ช่วยเผื่อคนที่ไม่ได้เข้าสอบหรือขาดเรียนไป ดังนั้น ผมก็เลยไม่ค่อยกังวลกับเรื่องสอบตกมากนัก

(Chote, pseudonym,
a Muslim male student from the central area)

(โชติ นามสมมุติ
นักศึกษาชายชาวมุสลิมจากภาคกลาง)

6.1.2.2 Pedagogy

We (as B.Ed. students) are often taught using lectures, answering questions and using PowerPoint Presentations. For example, during a lesson, after lecturing and presenting a video clip via YouTube, the lecturer would ask questions and give us a worksheet.

ส่วนใหญ่ที่เรียน ๆ กันในห้องก็เป็นแบบบรรยาย ถามตอบ แล้วก็ใช้พาวเวอร์พอยท์ มีเปิดยูทูปบ้างคะ จากนั้นอาจารย์เขาก็ถามคำถามหลังจากดูเสร็จ แล้วก็แจกใบงาน

(Suda, pseudonym,
a Buddhist female student from the south)

(สุดา นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคใต้)

6.2.1.1.1 Analysing a problem

I was happy to undertake the group assignments with classmates. We were able to identify and analyse the problem within the group discussion.

ผมมีความสุขที่ทำงานกลุ่มกับเพื่อน ๆ เราสามารถระบุและช่วยกันวิเคราะห์ปัญหาได้จากการอภิปรายกันครับ

(Somphop, pseudonym,
a Buddhist male student from the north-east)

(สมภพ นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

6.2.1.1.2 Selecting and evaluating an appropriate solution

We (as group members) were able to select and analyse the solution with respect to its strengths and weaknesses. Supportive ideas were given during discussion and debate activities.

ก็ช่วยกันเลือกและประเมินข้อดีข้อเสียของแนวคิดต่าง ๆ ที่ถูกเสนอกันมา ก็ดีนะครับ จากที่ทํากิจกรรมกันมา (อภิปรายและโต้แย้ง) พวกเราจะดูว่าแต่ละแนวทางนั้นมีเหตุผลซัดมัย

(Nikom, pseudonym,
a Buddhist male student from the north-east)

(นิคม นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

6.2.1.2 Teacher and student interactions within the SACM activities

I was not confident in answering or having a discussion with a teacher because I was afraid of being incorrect and of the teacher's condemnatory comments. In my experience, I have not argued with any teachers. Hence, when a teacher asks a question, I prefer to keep silent.

หนูไม่ค่อยกล้าเท่าไรถ้าต้องอภิปรายในกลุ่มกับครูอาจารย์ เพราะกลัวว่าตอบคำถามไปแล้วจะผิด หรือกลัวถูกดู หนูไม่เคยเถียงคะ ดังนั้น เวลาครูเขาถามก็เลยเงียบตลอด

(Apha, pseudonym,
a Muslim female student from the south)

(อาภา นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

6.2.2.1 The understanding of Thai literature themes and ideas

After discussion and debate, I was able to comprehend and summarise the main ideas. The whole picture of the literature themes and ideas were clear to me, even though the literature consisted of old words and idioms.

หลังจากที่อภิปรายและโต้แย้งภายในกลุ่ม ก็จะช่วยกันสรุปว่าแนวคิดสำคัญคืออะไร สำหรับผม ก็เข้าใจดีครับ แม้ว่าเรื่องี่อ่านจะมีคำศัพท์แลพสำนวนเก่า ๆ

(Somphop, pseudonym,
a Buddhist male student from the north-east)

(สมภพ นามสมมุติ
นักศึกษาชายชาวพุทธจากภาคตะวันออกเฉียงเหนือ)

6.2.2.2.1 An appreciation of Thai literature

Everyone realised that religion was a sensitive topic. Although there was a disagreement viewpoint, the teacher usually avoided mentioning it. In a Thai literature classroom, if I found a topic sensitive, I would leave and change to study another topic that would not lead to any conflicts.

(Somsri, pseudonym,
a Muslim female student from the south)

ทุกคนก็รู้ว่าเรื่องศาสนาอ่อนไหว แม้ว่าบางหัวข้อจะไม่เห็นด้วย หรือโต้แย้งได้ แต่ครูเขาก็เลี่ยงไม่พูดถึง อย่างในวรรณคดีไทย ถ้าพบหัวข้อที่มันอ่อนไหวทางสังคมก็เปลี่ยนไปดูหัวข้ออื่นแทน เพราะว่าเรื่องพวกนี้มันจะนำไปสู่ความขัดแย้งไงคะ

(สมศรี นามสมมุติ
นักศึกษาหญิงชาวมุสลิมจากภาคใต้)

6.2.2.2.2 The application of Thai literature in everyday life situations

From my experience, after reading Thai literature teachers often asked me and my classmates about Thai literature ideas with respect to morals. The teachers also linked the literature ideas with Buddhist proverbs that are applied in everyday life.

(Penporn, pseudonym,
a Buddhist female student from the central area)

จากประสบการณ์ หลังจากอ่านจบแล้ว ส่วนใหญ่ครูเขาก็โยงวรรณคดีเข้ากับพวกคุณธรรมจริยธรรม จากหัวข้อธรรมะบ้าง พุทธสุภาษิตบ้าง แล้วก็เอาข้อคิดเหล่านั้นมาประยุกต์ใช้ในชีวิตประจำวัน

(เพ็ญพร นามสมมุติ
นักศึกษาหญิงชาวพุทธจากภาคกลาง)