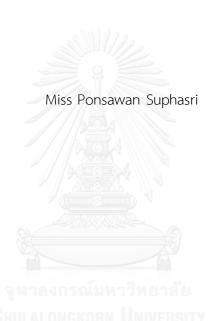
DEVELOPMENT OF A BLENDED LEARNING SUPERVISION MODEL TO ENHANCE ENGLISH-MAJORED STUDENT TEACHERS' REFLECTIVE ABILITY AND TEACHING PERFORMANCE



บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR) เป็นแฟ้มข้อมูลของนิสิตเจ้าของวิทยานิพนธ์ ที่ส่งผ่านทางบัณฑิตวิทยาลัย

The abstract and full text of theses from the academic year 2011 in Chulalongkorn University Intellectual Repository (CUIR) are the thesis authors' files submitted through the University Graduate School.

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy Program in English as an International Language (Interdisciplinary Program)

Graduate School
Chulalongkorn University
Academic Year 2015

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การพัฒนาโมเดลนิเทศการสอนโดยใช้รูปแบบการเรียนแบบผสมผสานเพื่อพัฒนาความสามารถด้าน การคิดแบบสะท้อนกลับและความสามารถด้านการสอนของนิสิตวิชาเอกการสอนภาษาอังกฤษ



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต สาขาวิชาภาษาอังกฤษเป็นภาษานานาชาติ (สหสาขาวิชา) บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย ปีการศึกษา 2558 ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

Thesis Title	DEVELOPMENT OF A BLENDED LEARNING
	SUPERVISION MODEL TO ENHANCE ENGLISH
	MAJORED STUDENT TEACHERS' REFLECTIVE
	ABILITY AND TEACHING PERFORMANCE
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พรสวรรค์ ศุภศรี : การพัฒนาโมเดลนิเทศการสอนโดยใช้รูปแบบการเรียนแบบผสมผสานเพื่อพัฒนา ความสามารถด้านการคิดแบบสะท้อนกลับและความสามารถด้านการสอนของนิสิตวิชาเอกการสอน ภาษาอังกฤษ (DEVELOPMENT OF A BLENDED LEARNING SUPERVISION MODEL TO ENHANCE ENGLISH-MAJORED STUDENT TEACHERS' REFLECTIVE ABILITY AND TEACHING PERFORMANCE) อ. ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ดร.สุมาลี ซิโนกุล, 208 หน้า.

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ 1) สร้างและพัฒนารูปแบบการนิเทศการสอนโดยใช้รูปแบบการเรียนแบบ ผสมผสานเพื่อพัฒนาความสามารถด้านการคิดแบบสะท้อนกลับและความสามารถด้านการสอนของนิสิตวิชาเอกภาษาอังกฤษ 2) เพื่อศึกษาผลการทดลองใช้รูปแบบนิเทศการสอน และ 3) เพื่อศึกษาความคิดเห็นของนิสิตและอาจารย์นิเทศที่มีต่อรูปแบบ นิเทศการสอนนี้ วิธีการดำเนินการวิจัยเป็นการวิจัยและพัฒนา มีขั้นตอนการวิจัยทั้งสิ้น 4 ขั้นตอนคือ ขั้นวิเคราะห์ปัญหา ขั้น พัฒนาวิธีแก้ปัญหา ขั้นทดลองกลุ่มย่อย และ ขั้นการทดลองหลัก กลุ่มตัวอย่างประกอบด้วยนิสิตวิชาเอกภาษาอังกฤษที่ กำลังฝึกประสบการณ์วิชาชีพครูในภาคปลาย ปีการศึกษา 2555 เครื่องมือที่ใช้ในการวิจัยประกอบด้วย แบบบันทึกหลังการ สอน แบบวัดระดับความสามารถในการคิดสะท้อนกลับ แบบสังเกตพฤติกรรมการจัดการเรียนการสอน และคำถามปลายเปิด สำหรับการสัมภาษณ์ การวิเคราะห์ข้อมูลใช้สถิติบรรยายและการวิเคราะห์เนื้อหา ผลการวิจัยสรุปได้ดังนี้

- 1. รูปแบบการนิเทศการสอนโดยใช้รูปแบบการเรียนแบบผสมผสานประกอบไปด้วย 4 องค์ประกอบ ได้แก่ สภาพแวดล้อม บุคคล กิจกรรมการนิเทศการสอน และ เทคโนโลยีการสื่อสาร มีขั้นตอน 3 ขั้น คือ ขั้นก่อนสังเกตการณ์ ขั้น สังเกตการณ์ และขั้นหลังสังเกตการณ์
- 2. ผลการประเมินคุณภาพของรูปแบบการนิเทศการสอนโดยใช้รูปแบบการเรียนแบบผสมผสานที่มีต่อระดับความสามารถในการคิดสะท้อนกลับของกลุ่มตัวอย่างพบว่า โดยรวมแล้วระดับความสามารถด้านการคิดสะท้อนกลับไม่พัฒนา เพิ่มขึ้นจากระดับขั้นบรรยายซึ่งเป็นระดับที่ 2 แต่เมื่อพิจารณาระดับความสามารถด้านการคิดสะท้อนกลับของกลุ่มตัวอย่าง เป็นรายบุคคลนั้นจะพบว่า มีนิสิตจำนวน 2 คนที่ความสามารถด้านการคิดสะท้อนกลับเพิ่มขึ้น 1 ขั้น คือจากระดับขั้น บรรยายไปสู่ขั้นการสอนซึ่งเป็นระดับที่ 3 จากผลการทดลองยังพบอีกว่าตัวแปรที่มีอิทธิพลต่อความสามารถด้านการคิด สะท้อนกลับของกลุ่มตัวอย่างคือ การมีปฏิสัมพันธ์แบบเผชิญหน้ากับอาจารย์นิเทศในขั้นหลังสังเกตการณ์ และการคิดสะท้อน กลับด้วยตัวเองทางออนไลน์
- 3. ผลการประเมินคุณภาพของรูปแบบการนิเทศการสอนโดยใช้รูปแบบการเรียนแบบผสมผสานที่มีต่อ ความสามารถด้านการสอนของกลุ่มตัวอย่างพบว่า โดยรวมแล้วความสามารถด้านการสอนของกลุ่มตัวอย่างเพิ่มขึ้น 2 ระดับ คือ จากขั้นเริ่มต้น (ขั้นที่ 2) ไปสู่ ขั้นมาตรฐาน (ขั้นที่ 4) ตัวแปรที่มีอิทธิพลต่อความสามารถด้านการสอนคือ ปฏิสัมพันธ์ ออนไลน์เพื่อแก้ไขแผนการสอน ปฏิสัมพันธ์แบบเผชิญหน้ากับอาจารย์นิเทศในขั้นหลังสังเกตการณ์ และการคิดสะท้อนกลับ ด้วยตัวเองทางออนไลน์
- 4. กลุ่มตัวอย่างและอาจารย์นิเทศมีความคิดเห็นด้านบวกต่อรูปแบบการนิเทศการสอนโดยใช้รูปแบบการเรียน แบบผสมผสาน

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ส.เม.เาณ.เ	ภาษาอังกฤษเป็นภาษานานาชาติ	สายมอชอนสต
ปีการศึกษา	2558	ลายมือชื่อ อ.ที่ปรึกษาหลัก

5087828120 : MAJOR ENGLISH AS AN INTERNATIONAL LANGUAGE

KEYWORDS: TEACHER SUPERVISION / BLENDED LEARNING APPROACH / REFLECTIVE THINKING / TEACHING PERFORMANCE

PONSAWAN SUPHASRI: DEVELOPMENT OF A BLENDED LEARNING SUPERVISION MODEL TO ENHANCE ENGLISH-MAJORED STUDENT TEACHERS' REFLECTIVE ABILITY AND TEACHING PERFORMANCE. ADVISOR: ASSOC. PROF. SUMALEE CHINOKUL, Ph.D., 208 pp.

The research objective were (1) to develop a blended learning supervision model to enhance English-majored student teachers' reflective ability and teaching performance, (2) to evaluate the effectiveness of the model in terms of the student teachers' reflective ability and teaching performance, and (3) to explore the student teachers' and the supervisor's opinions towards the model. This research employed the research and development approach (R&D) as the research design. The procedure consisted of 4 stages; problem analysis, solution design, pilot study, and implementation. The participants were 4 English-majored student teachers from a Thai public university who were attending the 2nd semester teaching practicum of the academic year 2011. The research instruments were: 1) reflective journal and reflective ability scoring rubrics, 2) classroom observation form, and 3) open-ended interview questions. Data were analyzed using mean and content analysis. The research findings were:

- 1. The blended learning supervision model comprised of 4 components: 1) environment, 2; agents, 3) supervision activities, and 4) technologies; and covered 3 supervision stages: 1) pre-observation, 2) observation, and 3) post-observation.
- 2. The effectiveness of the blended learning supervision model on English-majored student teachers' reflective ability revealed that the participants' reflective ability remained at the descriptive level (level2) as a group. However, there were two individual participants whose reflective ability increased to reach the pedagogical level (level3). Two factors that influenced the participant's reflective ability were 1) face-to-face interaction with supervisor at the post-observation stage, and 2) online self-reflection.
- 3. The effectiveness of the blended learning supervision model on the participant's teaching performance indicated that the participants' teaching performance increased from initial level (level 2) to proficient level (level 3) in general. Three factors that influenced the participants' teaching performance were 1) online scaffolding on lesson planning; 2) face-to-face interaction with supervisor at the post-observation stage, and 3) online self-reflection.
- 4. Both English-majored student teachers and the supervisor had positive opinions towards the blended learning supervision process as well as the online technologies and the feedback given by the supervisor.

Field of Study:	English as an International Language	Student's Signature
Academic Year:	2015	Advisor's Signature

ACKNOWLEDGEMENTS

I was very naïve when I first began this long journey. It has been an enlightening experience in many aspects. I have developed as a researcher, as an academic, and as a student. Furthermore, I have discovered my strengths, weaknesses, and also strategies to cope with disappointment, rejection, and pressure. However, I would not have reached my destination without the help and support of the kind people around me. Thus, I would like to express my sincere gratitude and appreciation to all those who helped make this study possible, including but certainly not limited to the following.

First and foremost, I would like to thank God for opening the door to my Ph.D. journey. His guidance and providences helped making this study a reality. As He has promised, everything is beautiful in His time. All of this would not have been possible without my advisor, Assoc. Prof. Sumalee Chinokul. Her amazing wisdom and insights helped guiding me through this process. Her encouraging, dedication, and self-sacrifice have been very inspiring and helped me get through difficult times. I hope that I can also live up to being the dedicated teacher that she has been as I move forward in my career. Furthermore, I would like to extend my gratitude to other doctoral committee members, Asst. Prof. Apasara Chinwonno, Assoc. Prof. Jintavee Khlaisang, Asst. Prof. Pattamawan Jimarkorn Zilli, and Dr. Jutarat Vibulphol. Their suggestions, feedback, patience, and willingness to read my work were indispensable in completing this dissertation.

I greatly appreciate the Royal Golden Jubilee (RGJ) Ph.D. programme and the Thailand Research Fund (TRF) for their financial support for my study. Thank you for giving me the valuable opportunity to grow in the academic field. Furthermore, I would like to extend my appreciation to all student teachers who agreed to participate in every stages of my study. Thank you for your wonderful cooperation even when you were most stressed. To EIL staffs, EIL friends, and friends at the Binding Heart Church and Trang Church, I really appreciated your assistance, your moral and also your prayer support. Finally, I would also like to express my deep gratitude to my parents, Pinit and Piewpan Suphasri, whose endless love, generosity, support and prayer served as the wind beneath my wings.

CONTENTS

	Page
THAI ABSTRACT	iv
ENGLISH ABSTRACT	V
ACKNOWLEDGEMENTS	Vi
CONTENTS	vii
Chapter Introduction	1
1. Background of the study	1
2. Statement of Problems	4
3. Research objectives	6
4. Research questions	7
5. Statement of the hypothesis	7
6. Scope of the study	
7. Definitions of terms	
8. Overview of the study	9
Chapter II Literature Review	10
Part1: Supervision in sociocultural theory perspective	11
1.1 Mediation	12
1.2 Scaffolding	13
1.3 Internalization	14
1.4 Summary	15
Part2: Teacher supervision	15
2.1 Definitions of teacher supervision	16
2.2 Roles and responsibilities of supervisor	17

		Page
2	2.3 Supervision procedure	20
2	2.4 Supervisor's feedback	22
2	2.5 Summary	27
Part3	: Reflective practice	27
3	3.1 Definitions of reflective practice	28
3	3.2 Reflective practice process	28
	3.2.1 Dewey's model of reflective practice	29
	3.2.2 Kolb's experiential learning theory model	29
	3.2.3 Gibb's reflective practice	30
3	3.3 Outcomes of reflective practice	33
	3.3.1 Change in knowledge of self	33
	3.3.2 Change in teaching performance	34
3	3.4 Reflective journal	35
	3.4.1 Process of reflective journal writing	36
	3.4.2 Reflective journal Evaluation	39
	3.4.3 Challenges of Reflective Journal	42
3	5.5 Summary	44
Part4	: Teaching performance	44
4	1.1 Definitions of teaching performance	44
4	1.2 Key teaching performance domains	45
4	3.3 Variables influence student teachers' teaching performance	47
	1. Motivation	47
	2 Feedback	48

	Page
3. Reflection	49
4.4 Summary	49
Part5: Blended learning approach	50
5.1 Blended learning approach definitions	50
5.2 Levels of blended learning course	51
5.3 Benefits of blended learning	53
5.4 Challenges of blended learning	55
5.5 Facebook	56
5.6 Blended learning supervision	57
5.7 Blended learning and reflective practice	59
5.8 Summary	
6. Conclusion	61
Chapter III Research Methodology	63
Phase1: Process prior to the main study	65
1.1 Problem analysis stage	65
1.1.1 Problem analysis round1	65
1.1.2 Problem analysis round2	66
1.1.3 Problem analysis round3 (Appendix A)	66
1.1.4 Summary	68
1.2 Solution design stage	68
1.2.1 Development of blended learning supervision model	68
1.2.2 Development of research instruments	73
1.2.2.1 Reflective journal (See Appendix B)	73

	Page
1.2.2.2 Reflective ability scoring rubrics (see Appendix C)	73
1.2.2.3 Classroom observation form (see Appendix D)	74
1.2.2.4 Open-ended questions for semi-structured interview	75
1.2.3 Summary	76
1.3 Pilot study stage	76
Findings from the pilot study stage	77
Summary	78
Phase2: Main study	78
2.1 Context of the study	78
2.2 Participants	78
2.3 University supervisor and researcher	79
2.4 Implementation timeframe	80
2.4.1 Preparation phase	81
2.4.2 Data collection phase	83
2.4.3 Follow-up interview phase	84
2.5 Data analysis	84
2.6: Summary	86
Chapter IV Research Findings	87
Part1: The findings on components and process of blended learning	
supervision model	87
1.1 Rationales of blended learning supervision model	87
1.2 Components of blended learning supervision model	89
1.3 Blended learning supervision process	93

		Page
Par	rt2: The effectiveness of blended learning supervision model on student	
	teachers' reflective ability and teaching performance	100
	2.1 Description of student teachers' language learning and teaching	
	background	101
	Participant1: Stella	101
	Participant2: Fiona	103
	Participant3: Nate	105
	Participant4: Gina	107
	2.2 Effectiveness of blended learning supervision model on student	
	teachers' reflective ability	109
	2.2.1 Findings on student teachers' reflective ability development	109
	2.2.2 Findings on how blended learning supervision helped shaping	
	student teachers' reflective ability	112
	2.3 Effectiveness of blended learning supervision model on student	
	teachers' teaching performance	117
	2.3.1 Findings of student teachers' teaching performance	
	development	117
	2.3.2 Findings on how blended learning supervision model helps	
	shaping student teachers' teaching performance	118
Par	rt3: The findings on student teachers' and supervisor's opinions towards the	
	blended learning supervision model	122
	3.1 Student teachers' opinions towards the blended learning supervision	
	model	122
	3.1.1 Opinions towards technology	123
	3.1.2 Opinions towards reflection	124

	Page
3.1.3 Opinions towards supervision activities	126
3.2 Supervisor's opinions towards the blended learning supervision mode	l127
3.2.1 Opinions towards technology	127
3.2.2 Opinions towards supervisor's role	128
3.2.3 Opinions towards student teachers' role	129
3.2.4 Opinions towards interaction	129
3.2.5 Opinions towards blended learning supervision process	129
Part4: Summary of the findings	130
Chapter V Summary, Discussion, and Recommendations	134
Part1: Summary of the study	134
1.1 Problem analysis stage	134
1.2 Solution design stage	135
1.3 Pilot study stage	136
1.4 Implementation stage	136
Part2: Discussion	141
2.1 The components and process of blended learning supervision model	
promoted student teachers' learning to teach	141
2.2 Effectiveness of the blended learning supervision model on English-	
majored student teachers' reflective ability and teaching	
performance	144
2.2.1 Effectiveness of the blended learning supervision model on	
English-majored student teachers' reflective ability	144
2.2.2 Effectiveness of blended learning supervision model on English	า-
majored student teachers' teaching performance	146

	Page
2.3 Opinions of English-majored student teachers' and the supervisor's	
towards the blended learning supervision model	148
Part3: Limitations, recommendations, implications, and significance of the	
<u>study</u>	151
3.1 Limitations	151
3.2 Recommendations and implications	151
3.3 Significance of the study	152
REFERENCES	154
Appendix A Questionnaire used for collecting opinions of the population at	
problem analysis round3	177
Appendix B Examples of student teacher's reflective journal	192
Appendix C	194
Appendix D Classroom observation form	196
Appendix E Consent form	204
Appendix F List of experts	206
VITAVITA	208

LIST OF TABLES

Table 1: Roles and responsibilities of a supervisor	19
Table 2: Characteristics of effective supervisor's feedback	23
Table 3: Criteria for choosing reflective practice model	32
Table 4: Synthesis of reflective journaling process used in this study	38
Table 5: Summary of studies relating to levels of reflection	39
Table 6: Key domains of student teachers' teaching performance	.46
Table 7: Levels of blended learning course proposed by Sloan Consortium	
(2007)	52
Table 8: Information of the four participants	78
Table 9: Data Collection Timeframe	.80
Table 10: Findings on student teachers' reflective ability improvement1	10
Table 11: Findings on student teachers' teaching performance improvement 1	17

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LIST OF FIGURES

Figure 1: Gibb's reflective practice	31
Figure 2: Research and development design to develop blended learning	
supervision model to enhance English-majored student teachers' reflective	
ability and teaching performance	63
Figure 3: Analysis and synthesis of sociocultural theory concept	69
Figure 4: Analysis and synthesis of blended learning approach	71
Figure 5: Rationales of blended learning supervision model	72
Figure 6: Components and process of blended learning supervision model	92
Figure 7: Example of student teacher's e-mail	93
Figure 8: Example of supervisor's e-mail	94
Figure 9: Example of online interaction to negotiate lesson planning idea	94
Figure 10: Example of student teachers' teaching clips recorded during the	
observation stage	95
Figure 11: FB practicum group main feature	96
Figure 12: Examples of teaching clips shared on the FB practicum group	97
Figure 13: Example of student teacher's journal and supervisor's comment	
on the FB practicum group	98
Figure 14: Example of a dialogue between a student teacher and supervisor	
on her teaching practice	99

Chapter I

Introduction

1. Background of the study

The first decade of the 21st century has brought about dramatic changes in terms of society, politics, economics, and culture. Under the influence of advanced transportation and communication technologies, our world is being flattened (Friedman, 2007); on the other hand, it has become a much more open place. It is possible nowadays for people from different walks of life, from different cultures, and from different corners in the world to collaborate or compete in real time regardless geographical or political restrictions. Zhao (2010, p. 423) explains that this flexibility is a result of 'globalization' which empowers the free movement of individuals across physical distances. When the global distance decreased, people are experiencing economic, cultural, and political activities on a global scale. For example, in terms of the world economy, Western countries, such as United States and Europe; for example, are no longer the world economic powers anymore. Other emerging Asian countries, such as China and India have grown so large as to claim global significance and impact (Krueger, 2006).

Globalizations has not only transformed the way people live, work, and entertain, it also influences how education and teacher education are perceived. According to Jarvis and Holdford (2005), 'globalization' creates positive influence on education since the tenet draw together different people, ideas, and resources from all over the world; thus, the whole world has become a large library or a research institution where different people can access. Furthermore, the rapid development in technologies and communications also brings changes to education system and shifts the society from industrialization to information-based. Education system in this globalization era; therefore, is helping their students to become 'global citizenship' and possess 'global competence' (Zhao, 2010). Roekel (2010) defines global competence as the acquisition of in-depth knowledge and understanding of international issues. This set of knowledge and skill consists of:

- 1) International awareness: the knowledge and understanding about the world history, political, social, and economic system. This includes the awareness that an individual's actions can make a huge international influence.
- 2) Appreciation of cultural diversity: the ability to understand and the willingness to accept cross-cultural difference.
- 3) Proficiency in foreign languages: the knowledge and ability to use additional languages besides the first language.
- 4) Competitive skills: the extensive knowledge and high-level thinking skills that enable students to compete in the global market place.

Panich (2012) asserts that the education in the 21st century focuses on contributing new knowledge to solve both local and international problems. Thus, students in the 21st century need to be equipped with learning skills in order to become both the 'knowledge worker' and 'learning person' who serve and represent their local context in global scale. They also need to be equipped with knowledge and skills that would meet the needs of the global workforce (Zhao, 2010). These changes cause a big impact towards the teacher education.

Besides knowledge, the teacher in the 21st century has to be equipped with skills that are essential for teaching in this globalized era since the students can seek for knowledge somewhere else, especially from the Internet. Examples of essential skills for teacher in the 21st century include: 1) content, 2) computer integration (ICT), 3) constructionist, 4) connectivity, 5) collaboration, 6) communication, 7) creativity, and 8) caring (Laohajaratsang, 2010). The 21st century skills indicate new role of teachers. Their role has been changed from 'knowledge transmitter' to 'knowledge facilitator' (Panich, 2012) and also 'reflective practitioner' (Thongthew, 2014). Different teaching approaches, such as inquiry learning, problem-based learning and research-based learning are employed to encourage students to construct their own knowledge repertoire (Ruengron et al., 2014). How teachers prepare to take up these new roles and perform their teaching effectively in order to meet the new expectations is crucial to the reform and practice of pre-service teacher education and the process of supervision (Cheng, Chow, & Mok, 2004).

In traditional pre-service teacher education, it aims to equip student teachers with necessary skills and competence so that they can effectively deliver knowledge and skill to help students meet the social needs (Freeman, 1993; Richards, 1998). Given this emphasis, the traditional practicum experience and supervision process perceive student teachers as 'passive followers of their supervisor' (Cheng, 2009; Ewing & Smith, 2003) while the supervisor is viewed as 'hierarchical distant critic' (Chamberlin, 2000; Freeman, 1990) who has absolute authority to make student teachers fail or pass. Oftentimes, traditional supervision does not provide opportunities for student teachers to reflect, document, or interpret their own performance (Weiss & Weiss, 2001). Thus, student teachers often take the 'safe' solution when planning for supervised lessons by affixing to the routine and keeping risk taking at a minimum (Cornu & Ewing, 2008; Weiss & Weiss, 2001).

To embrace the new century, the pre-service teacher education has begun to reconceptualize its paradigm moving towards reflective. With the light of sociocultural theory, pre-service teacher education and supervision process is acknowledged as opportunities for 'learning to teach' (Johnson, 2009; Zorga, 1997). Student teachers in the new paradigm are different from the traditional one. They become the active participants constructing their own knowledge through social interactions with supervisor and other school stakeholders (Johnson & Golombek, 2003a; Ohta, 2000). Teacher supervision; as a result, is justified as the 'facilitator of reflection' and the 'co-constructor of knowledge' (Smyth, 1993). These supportive roles finally help student teachers to improve their quality of teaching (Beach & Reinhartz, 2000; Chamra, 2007). Responsibilities of the supervisor become less directive and are more constructive and collaborative (Memduhoglu, Aydin, Yilmaz, Gungor, & E., 2007; Rakwong, 2003). They serve as people that student teachers could trust (Fayne, 2007). By positioning the student teachers to take more responsibility for their own learning and to critically reflect on their practice, it becomes evident that the new paradigm of teacher supervision enhances teachers' risk taking and promotes their life-long professional learning.

2. Statement of Problems

Although the new paradigm in teacher supervision seems promising more than the traditional one, the reality sometimes yield mismatch outcome.

The study of Ong'ondo and Borge (2011) which was conducted to analyze the process of supervision with six English language student teachers doing practicum in Kenya reported results contradicting to what teacher supervision in the new paradigm has expected. The results from the analysis of supervision conducted with the six Kenyan student teachers revealed three problems. First, the supervision process was brief and uncoordinated. The supervisors never went through the supervision stages due to their workload as they were expected to do a minimum of five assessments per day over different schools which located quite far from each other. Thus, they had no other option but to left the supervision unfinished and ran to other schools. Second, the supervisor tended to provide evaluative and directive feedback. Mostly, the feedback focused on what student teachers had done right or wrong and telling them what to do next time. The student teachers' role in the feedback session was passive. The supervisor reasoned that they could not arrange any discussion due to the lack of time. Student teachers, on the other hand, agreed that it was very common that the supervisor had to play the directive role. The last problem found was that the student teachers tried to please the supervisors by presenting the lesson that would make them obtaining pass mark.

Similar findings were indicated from the work of Moradi, Sepehrifar, and Khadiv (2014) who conducted a survey and interview with EFL teachers in Iran to explore their opinions towards the process of observation conducted by a supervisor. The results revealed that the student teachers tried to please the supervisors due to the fear of getting bad score. Some hold negative attitude towards the supervisors that they looked for things to criticize. This study was aligned with the study of Kayaoglu (2012) who also did a survey to explore EFL teachers' opinions towards the supervision process in Turkey. The findings revealed that student teachers had negative opinions towards the supervision process. They perceived it as authoritative process where the supervisor dominated the feedback session.

Boonchuai and Wangyen (n.d.) reported two problems found from analysis of evaluation and interview about teacher supervision process of Chulalongkorn University Demonstration Elementary School, including 1) the supervisor tended to be very prescriptive in giving feedback on student teachers' lesson plans and teaching; thus, student teachers had to follow the direction without having opportunities to try new teaching strategies; 2) student teachers' negative attitude towards the supervisors' feedback.

Regarding the studies presented above, the problem found in teacher supervision process can be summarized into four aspects: 1) supervisor's authorities, 2) student teachers' passive role, 3) prescriptive feedback, and 4) time and geographic limitation. The time and geographic limitation has become a main problem in some area. For example, University of Wisconsin-Whitewater (n.d.) stressed that they were facing with the challenge of how to facilitate their student teachers with enough supervision. Due to the traditional placement approach most student teachers were placed in a 75-mile radius of the campus which made it impossible for the student teachers and supervisors to reach each other. Furthermore, this challenge also restricted the opportunities to partner with schools in remote area and limited opportunity to provide student teachers with diverse teaching experience.

In Thailand, there was a study conducted by Summat, Chartuprachewin, Pakdeewong, and Kornpuang (2014) who explored the actual situation and requirements of educational supervision in special development zone in the three southern border provinces. The study revealed several problems. One of them was that there was insufficient supervision for teachers in the three provinces due to the violent situations.

Due to the four problems mentioned above, they indicate gaps, including 1) supervisor's authority, 2) student teacher's passive role, 3) prescriptive feedback, and 4) time and geographic limitation, found in reality and in theoretical concept of teaching supervision. With these gaps, it might be burdensome to student teachers to become the reflective practitioner who is equipped with ability to reflect and the knowledge facilitator who is equipped with teaching skills, communication skills, and

subject matter knowledge, the two characteristics essential for teachers in the 21 st century.

The researcher would like to propose a teacher supervision model called 'blended learning supervision model' to bridge the gaps mentioned. The model is a combination between two theoretical principles, naming sociocultural theory and blended learning approach. The sociocultural theory, as mentioned earlier, stresses an important on individual's learning through social interaction (Lantolf & Thorne, 2006; Vygotsky, 1978). Three sociocultural theory main tenets, naming mediation, scaffolding, and internalization support promote a balance of power between the expert and novice as well as promote self-regulation (J. V. Wertsch, 2008).

Blended learning approach aims to create flexible learning environment where students can be beneficial from the use of different instructional methods and medias within the face-to-face and online environment (Driscoll, 2002; Thorne, 2003). With the use of synchronous and asynchronous tools, such as e-mail, chatting platform, discussion board, and etc., the blended learning approach promote social interaction among the users, increased cost effectiveness, increased flexibility and chances to access to knowledge, and also increase pedagogical richness (Driscoll, 2002).

Referring to the advantages of the two theoretical concepts, this study would like to propose the blended learning supervision model to enhance student teachers' reflective ability and teaching performance. The model facilitates the interactions between student teachers and supervisor using online technologies, promotes their reflective ability through the use of technology-enhanced reflection, and accelerates their teaching performance through different types of mediation.

3. Research objectives

- 3.1 To develop a blended learning supervision model to enhance Englishmajored student teachers' reflective ability and teaching performance.
- 3.2 To evaluate the effectiveness of the model in terms of English-majored student teachers' reflective ability and teaching performance.

3.3 To explore English-majored student teachers' and the supervisor's opinions towards the blended learning supervision mode.

4. Research questions

- 4.1 What are the components and process of the blended learning supervision model?
- 4.2 To what extent does the blended learning supervision model enhance English-majored student teachers' reflective ability and teaching performance?
- 4.3 What are the English-majored student teachers' and the supervisor's opinions towards the blended learning supervision model?

5. Statement of the hypothesis

- 5.1 The English-majored student teaches' reflective ability will be improved after the blended learning supervision model implementation.
- 5.2 The English-majored student teachers' teaching performance will be improved after the blended learning supervision model implementation.
- 5.3 Both English-majored student teachers and the supervisor have positive opinions towards the blended learning supervision model.

6. Scope of the study

6.1 Participants

The participants were four English-majored student teachers studying at a Thai public university in Bangkok. They were teaching in the second semester practicum of the academic year 2011. The study lasted about 14 weeks.

6.2 Variables

- 6.2.1 The independent variable is the blended learning supervision model.
- 6.2.2 The three dependent variables are 1) student teachers' reflective ability, 2) student teachers' teaching performance, and 3) student teachers' and supervisor's opinions towards the blended learning supervision model.

6.3 Research design

This study employed research and development approach (R&D) as the research design. After the blended learning supervision model was developed, the implementation was carried out with a group of four student teachers being supervised by a university supervisor at a school in Bangkok for 14 weeks.

7. Definitions of terms

- **7.1 Blended learning supervision model** refers to a model indicated how supervision process was delivered in the face-to-face and online environment. The model comprises of four components, including environment, agents, supervision activities, and technologies. There are three supervision stages, including pre-observation, observation, and post-observation stage.
- 7.2 Reflective ability refers to the ability to explain, enquire and evaluate a challenging situation based on a careful consideration of one's own experience and belief in order to improve the situation. The reflective thinking ability consists of 5 stages, including 1) focusing, 2) questioning, 3) confronting, 4) supporting belief, and 5) promising change. The reflective ability is classified into 4 levels, including 1) non-reflection, 2) descriptive reflection, 3) pedagogical reflection, and 4) critical reflection. It can be measured from reflective journal using reflective ability scoring rubrics.
- **7.3 Teaching performance** refers to the observable and measurable student teacher's teaching behaviors demonstrated during planning, teaching, and assessment stage. It was measured by using classroom observation form.
- **7.4 English-majored student teacher** refers to the fifth-year English-majored student teachers from a Thai public university who were participating in the second semester practicum of the academic year 2011.

8. Overview of the study

There are five chapters in this dissertation. Detail of each chapter is presented as follows:

Chapter one describes the rationale and the statement of the problem of teacher supervision process. As a result, the development of blended learning supervision model has been proposed to be the solution. The research objectives, research questions, and hypothesis of the study are provided. The primary information regarding the participants, the variables, and the scope of this study are also given. Additionally, the definitions of terms are described.

Chapter two includes a review of literature and research relevant to this study, including 1) sociocultural theory, 2) teacher supervision, 3) reflective practice, 4) teaching performance, and 5) blended learning approach.

Chapter three describes the research design and the process of developing blended learning supervision model as well as the research instruments. The procedure of model implementation and data analysis are also explained.

Chapter four presents the results found from the implementation.

Lastly, **chapter five** presents the summary of the study, discusses the findings, and suggests the implications as well as the recommendations for further research.

Chulalongkorn University

Chapter II

Literature Review

This chapter provides a theoretical background of these following topics:

- 1. Supervision in sociocultural perspective;
 - 1.1 Mediation
 - 1.2 Scaffolding
 - 1.3 Internalization
 - 1.4 Summary
- 2. Teacher supervision
 - 2.1 Definitions of term
 - 2.2 Roles and responsibilities of supervisor
 - 2.3 Supervision procedure
 - 2.4 Supervisor's feedback
 - 2.5 Summary
- 3. Reflective practice
 - 3.1 Definition of term
 - 3.2 Reflective practice process
 - 3.3 Outcome of reflective practice
 - 3.4 Reflective Journal
 - 3.5 Summary
- 4. Teaching performance
 - 4.1Definition of term
 - 4.2 Key teaching performance domains
 - 4.3 Variables influence student teachers' teaching performance
 - 4.4 Summary
- 5. Blended learning approach
 - 5.1 Definition of term
 - 5.2 Levels of blended learning course
 - 5.3 Benefits of blended learning approach

- 5.4 Challenges of blended learning approach
- 5.5 Facebook
- 5.6 Blended learning and supervision
- 5.7 Blended learning and reflective practice
- 5.8 Summary
- 6. Conclusion

Part1: Supervision in sociocultural theory perspective

The concept is first proposed by Vygotsky in 1970s and has been further studied by various scholars, such as J. V. Wertsch (1994), Lantolf (1994, 2000), Lantolf and Thorne (2006), and Johnson (2006, 2009). Sociocultural theory (or SCT hereafter) argues that the development of individuals' cognition cannot be understood independently out of context; rather, it takes place in social context and through interaction with people as well as mediation of artifacts, i.e. activities, tools and symbols (John-Steiner & M., 1996; Johnson, 2009; Lantolf, 2000). On the other hand, the core concept of SCT stresses the important of social activities as the essential process which an individual learn and acquire new knowledge.

Since SCT was developed as a theory of learning, it provides a useful framework for teacher supervision in that it could explain how the student teachers' learn to teach. Regarding scholars in SCT field, the process of learning and higher cognitive functions are acquired through interactions within social contexts (Lantolf, 2000; Lantolf & Thorne, 2007; Richards, 2008; J. Wertsch, 1985). According to Johnson (2009), student teachers learn to construct and reconstruct their teaching through participation in university and school and classroom contexts. Thus, in supervision process, student teachers are invited to redefine or justify their prior teaching belief and concepts through collaborative interaction with supervisor and supervision activities which are tied to a case-by-case classroom context (O'byrne & Rosenberg, 1998; Rigazio-DiGilio, Daniels, & Ivey, 1997). Based on this concept, three tenets of SCT that relate to the process of student teachers' learning within supervision process, including mediation, internalization, and scaffolding are discussed.

1.1 Mediation

This concept refers to the process whereby culturally-derived psychological tools, such as language are used to regulate one's own or other's understanding (Fernyhough, 2008; Lantolf & Thorne, 2006). According to Kozulin (2002), mediation are classified into two types: human and symbolic. The human mediation focuses on the involvement of more experienced person which is effective in enhancing the individual's performance. Lantolf and Thorne (2006) provide further examples of involvement given within the human mediation as directions, different level of assistance, and scaffolding. Symbolic mediation concerns on the change in performance an individual brings about after interacting with symbolic toolmediators. This idea is in accordance with the idea about self-regulation development proposed by Vygotsky. According Lantolf and Thorne (2006) and J. V. Wertsch (2008), the three stages are object-regulation, other-regulation, and selfregulation. The first stage is the stage where by individual's understanding is being regulated by objects (or the symbolic mediation). In other-regulation stage, individual's performance is regulated through the implicit and explicit mediation offered by other individuals in the same context. This stage is made possible through scaffolding. Lastly, the self-regulation refers to the stage that the individual is able to achieve the performance independently. It could be implied that internalization plays an important role within this stage. However, the self-regulation is not a stable condition. The individual needs to revisit the object-regulation and other-regulation stage when confronting with new challenging situations.

Referring to the concept of mediation, student teachers can readjust their performance and attain the self-regulation stage in which they gain control over their practice through the dialogic interaction with two sources: 1) the supervisor during as well as with activities, and 2) tools, such as lesson plans, reflective journals, teaching manuals, etc. (Harvey, 2011; Johnson & Golombek, 2003b).

1.2 Scaffolding

As mentioned earlier that scaffolding is interwoven within the other-regulation stage, the reason is that it is the term used for describing the assistance a more knowledgeable peer gives in order for individuals to achieve a task they would not able to do it themselves (Donato, 1994a; Fahim & Haghani, 2012; Ohta, 2000). The scaffolding is best employed if it is adjusted to fit the individuals' current level of skill and knowledge (Berk, 2000). However, it has to be reminded that scaffolding is the means-focused assistance not ends-focused which means that it provides a learning opportunity for both experts and novices than to complete the task together rather than just completing the task alone (Wilson & Devereux, 2014). Additionally, scaffolding is temporary and can be decreased if the individuals can perform the task independently (Bailey, 2006).

Regarding scaffolding in supervision process, Johnson (2009) states clearly that scaffolding must be the goal-oriented means that help reducing student teachers' cognitive load and lead to development in teaching performance or in higher level of cognition. Scaffolding can be done in three forms: apprenticeship (or demonstration), participation (or collaborative learning activity between supervisor and student teacher), and appropriation (or student teacher and tool). There are several tools and activities used as a mediation tool as well as scaffolding for student teachers' learning; however, the most acknowledged tool is reflective journal or narrative inquiry (Golomberk & Johnson, 2004; Mercer, 2008; Syh-jong, 2007).

There are a large amount of studies conducted in relation to scaffolding concept. Examples of studies are presented below:

Wilson and Devereux (2014) conducted a study to examine how the concept 'high challenge: high support' of scaffolding can be applied into ALL context. The findings suggest two aspects of support: designed-in and contingent. The designed-in scaffolding referred to sub-task planned to help students achieve the assessment task; on the other hand, the contingent scaffolding involved on-the-spot interactions with students both face-to-face or online context as well as in the feedback of their work.

The study of Engin (2014) conducted a study to explore how the context of pre-service English teacher training support pre-service teachers' learning. The result indicated that scaffolding was situated in educational and cultural context since the context provided a presupposition of what effective teaching was and what were the right way to teach English. The researcher claimed that this understanding acted as a scaffold for pre-service teachers to plan and prepare their lessons as well as to reflect on their teaching practice. Additionally, it also acted as a scaffold for supervisor to provide input of the training. However, the researcher pointed out that scaffolding might not be occurred if the supervisor did not implement appropriate questions or prompt to support the construction of teachers' knowledge, or if the teachers did not involve actively in the scaffolding process.

The findings of Engin's study (Engin, 2013) suggested four types of scaffolding questions according to the amount of guidance. The four types of questions which were 1) telling questions; 2) fill-in-the-blank questions; 3) recall questions; and 4) hypothetical questions ranged from highly controlled scaffolding to minimal interference. The researcher concluded that one questioning strategy might not be appropriate for all teachers; the supervisor had to be flexible in using different questioning strategies to promote teachers' reflection and construction of teaching knowledge.

1.3 Internalization

Regarding to Vygotsky's, individuals' psychological function development appears twice. First on the social level between external mediation among people and then on individual level where individuals internally organize and regulate their own understanding and performance (Lantolf & Thorne, 2006; Vygotsky, 1978, p. 57). However, the internalization is not a mere copy of the external to internal level, but rather a transformation of knowledge and functions existed at the interpersonal level to the internal way of understanding (Johnson, 2009; J. Wertsch, 1985). In summary, the concept of internalization refers to a transformation of cognition from external

socially mediation to internal mental mediation controlled by individual. (Fernyhough, 2008; Harvey, 2011; Johnson, 2009; Johnson & Golombek, 2003a).

Clearly, in teacher supervision process, the aim of the supervisor is to encourage student teachers to regulate their mental activity through interaction, scaffolding, discussions, and analysis of classroom practice. At first, student teachers may rely on a supervisor's guidance to help them go through a particular lesson; however, eventually, they are able to form their version of teaching concepts which enable them to teach lessons in the way that is appropriate for their students (Johnson, 2009; Johnson & Golombek, 2003a).

1.4 Summary

Student teacher's learning to teach during the supervision process can be explained from the perspectives of sociocultural theory. They form their knowledge, belief, and principle about teaching through mediation with surrounding people h as peers, students, co-operating teachers, and supervisor as well as through mediation with tools, such as textbook, journal, teacher narrative and etc. During the supervision process, supervisor and student teachers interact collaboratively via dialogic discourse in order to help them to rethink, reconstruct, and redefine their past teaching experience as well as to create teaching practice that is meaningful and appropriate to recent classroom context and students. At the end of the day, the new insight emerges when student teachers are able to connect the expert knowledge learned from teacher training program or from more experienced peers with their own experiential knowledge.

The review about teacher supervision in detail is provided in the next section.

Part2: Teacher supervision

In teaching practicum context, it is implied that student teachers need guidance and support in learning how to teach since they are novices (Bailey, 2006; Soykurt, 2010). They are paired with experienced teachers (in this case, it refers to the university-supervisor) who help them realize their current level of instructional

ability, aware of classroom problems, encourage them solve problems found and also to grow pass their current level of instructional ability. Thus, teacher supervision has been considered as one of the key factors influenced student teachers' professional development, such as self-efficacy and commitment to teaching (Edmeirer, 2003; Freeman, 2001; Wallace, 1991), and also as a crucial component to a successful teaching practicum experience (Koerner, 1992). The following section summarizes how the process is defined by research scholars.

2.1 Definitions of teacher supervision

Different meanings of teacher supervision provided by scholars are in accordance with Bailey (2006) concern that the term is difficult to define since it is changed across contexts and over time. Examples of definition given are as follows:

Gebhard (1984) defines teacher supervision as an ongoing process where supervisor observes classroom situations with the aim of improving teachers' teaching.

Wallace (1991) perceives the process of supervision as the observation and monitoring process to ensure the quality of teachers' teaching.

Chamra (2007); Poomares (2000); Sergiovanni and Starratt (2002); Tangcharoenbumrungsuk (2005) agrees that teacher supervision is the process which the supervisor and teachers collaborate to improve the quality of teaching which directly affect students' academic success.

Beach and Reinhartz (2000) also views supervision as a process that focuses on developing teachers' teaching skills and improving their teaching performance by providing them with facts about their teaching, suggestions, and useful idea.

As the literature review suggests, teacher supervision is a process that aims to improve quality of teachers' teaching through supervisor's assistance. These definitions inevitably portrays the process as hierarchical/top-down relationship between the expert and novice which potentially inhabits teachers' trust and transparency (Sewall, 2009; Weiss & Weiss, 2001). Thus, alternative definitions which shift towards bottom-up process are conveyed as follows:

Zorga (1997) argues that teacher supervision process could also be seen as a learning process where teachers acquire new insights while they are learning to incorporate the theoretical knowledge with practical experience, to solve problems encountering in class, and to form their teacher identity.

Smyth (1993) considers teacher supervision as a facilitation of reflective practice which encourages teachers to justify their own teaching practice and to apply that justification to improve their teaching.

Ibrahim (2013) views teacher supervision process as a collaborative process where supervisor and teachers make shared decision in order to benefit teachers' learning and teaching.

It is obvious that the alternative definitions regard teachers as an active agent in supervision process while supervisor becomes more facilitative and less directive. Thus, the definition of teacher supervision in this study refers to a process which supervisor and teacher work together to reflect and theorize about teaching experience as well as to consider how to use the new understanding to improve the quality of teaching.

2.2 Roles and responsibilities of supervisor

To achieve the ultimate goal of supervision which is to improve teachers' teaching practice, supervisor has to perform different roles. Scholars have reviewed the roles and responsibilities of a supervisor as follows:

Gebhard (1990) points out that responsibility of supervisor should focus on 1) training student teachers to improve the quality of teaching; 2) facilitating student teachers to reflect and solve problems in their teaching; 3) giving them opportunities to explore and try out new teaching methods; and 5) giving them chances to develop ownership in teaching.

Boudreau (1999) suggests four responsibilities for a supervisor, including 1) establishing a mutual relationship with student teacher; 2) offering professional self-development opportunities; 3) organizing a practicum; 4) exchanging ideas and feedback.

Bourken (2001) proposes four key roles of supervisor. The first role is the role of a mentor who gives advice and guidance on student teacher's lesson planning, lesson objective setting, teaching strategies, teaching aids, and classroom management. The second role is being an evaluator who evaluating student teacher's progress as well as shares immediate and constructive feedback with them. It is also important for the supervisor to be unbiased and focuses on emphasizing the positive and to deliver feedback in a respectful manner. The third role is being a liaison person who promotes and maintains good relationship with related stakeholders, such as student teachers, co-operating teachers, representatives, and institute of education representative. The last role is being a tutor who provides tutorial to student teachers from different disciplines in order to help them gain insight about the curriculum.

Rakwong (2003) mentioned in his study that a supervisor's responsibilities consist of 1) following student teachers' progress; 2) giving suggestions and advice for student teacher to improve the quality of teaching; 3) offering comments on student teacher's lesson planning; 4) being a good teacher's role model; and 5) establishing good relationship with student teacher.

Memduhoglu et al. (2007) suggests several responsibilities of an effective supervisor, such as 1) observing and reflecting on student teacher's practice; 2) giving constructive feedback; 3) identifying alternative teaching strategies; 4) brainstorming with student teacher to solve classroom problem; 5) motivating them to teach; 6) fostering their autonomy; and 7) creating supportive supervision environment.

Roadrangka (2010) and Roadrangko and Srisukwatananan (2011) agree that supervisor should assume four responsibilities, including 1) observing student teacher's classroom and offering immediate feedback; 2) giving suggestions about teaching practice; 3) assessing student teacher's teaching performance; and 4) coordinating with school and teacher education program.

The roles and responsibilities reviewed suggest that a supervisor assumes multifaceted roles and responsibilities. To summarize, they are classified into three important roles, naming, assessor, mentor, and coordinator. Further details of each supervisor's role are presented in the table below.

Table 1: Roles and responsibilities of a supervisor

Mentor	Assessor	Coordinator
Giving various types of	Observing student	• Coordinating with co-
constructive feedback	teacher's classroom.	operating teacher to
either directive or non-	 Carrying out both 	exchange information
directive on student	formative and	and to find solution
teacher's lesson plans	summative assessment	regarding student
and teaching practice.	of student teacher's	teacher's teaching life
Facilitating student	teaching performance	and progress.
teachers to become	in a respectful manner.	Establishing and
self-directed and	 Monitoring student 	maintaining supportive
reflective practice.	teacher's teaching	relationship with
Motivating and	progress.	student teacher.
encouraging student		
teacher to keep		
improving their		
teaching.		
 Interacting with 	เลงกรณมหาวทยาลย	
student teacher to	ALUNGKURN UNIVERSITY	
exchange idea or to		
deliberate new		
teaching alternatives		

In summary, the multiple descriptions of supervisor's roles focus on different responsibilities. Bailey (2006) asserts that these roles and responsibilities can be exploited interchangeably throughout the supervision procedure. This may be because to balance the power between supervisor and student teacher so that supervision process is not an authoritative process and supervisor is no longer a

distant expert but rather a positive, supportive, and collaborative one (Chamberlin, 2000; Freeman, 1990).

2.3 Supervision procedure

To ensure the student teachers' teaching quality, it is undeniable that the fundamental activity which allows the supervisor to observe and collect authentic information regarding each student teacher's performance is classroom observation (Bailey, 2006; Wajnryb, 1992). The most commonly use procedure in observing and supervising student teachers' teaching consists of three stages: pre-observation conference, observation, and post-observation conference (Bailey, 2006; Range, Young, & Hvidston, 2013; Wajnryb, 1992). Each supervision stage is explained below:

2.3.1 Pre-observation conference

This pre-observation conference is a time when teacher and supervisor meet to discuss in detail about the lesson that is to be observed, such as to clarify objectives of the lesson, discuss and brainstorm about activities used within the lesson, and examine the learning assessments planned (Ediger, 2009).

2.3.2 Observation

The observation is the time when the supervisor observes student teachers' lessons situated in the real classroom context. The focuses of the observation are to assess and collect variety of classroom aspects, such as student teachers' teaching activities, teaching strategies, teacher's use of language, the use of teaching aids, student engagement, teaching pace, and etc. (Richards, 2011a; Wajnryb, 1992; zepeda, 2007). Various instruments are used to gather evidence, such as field notes, narrative summary, check list, or rating scale (Richards, 2011b; Sheal, 1989).

Each type of instrument has difference impacts on the quality of discussion at the post-observation conference stage. The use of standards-referenced instruments, such as rubrics and observation form is claimed to add more clarity and explicitness to the discussion due to the concrete nature of rubrics (Bissell & Lemons, 2006; Josson & Svingby, 2007). While the less structured instruments, such as field notes other descriptive-typed of instruments are likely to encourage more reflective

conversation between the supervisor and student teacher (Bunton, Stmpson, & Lopez-Real, 2002; Zepedan, 2002).

Furthermore, electronic tools, such as audiotape, videotape recorder can also be employed due to the influence of technological development (Bailey, 2006; Nunan & Bailey, 2009).

2.3.3 Post-observation conference

The post-observation conference allows the supervisor and student teachers to discuss about the evidence collected and draw conclusions regarding the data collected during the observation stage (Ong'ondo & Borge, 2011). Supervisor can choose among a wide range of supervisory styles to deliver the post-observation conference, such as traditional supervision model, clinical supervision mode, developmental supervision model, collegial supervision model, self-assessment supervision model, or integrative supervision model (Beach & Reinhartz, 2000; Glickman, Gordon, & Ross-Gordon, 2001; Olivia & Pawlas, 2001).

Although this stage promotes interaction and communication between the supervisor and student teacher, both parties should keep in mind that the conference should focus on formative assessment rather than summative, focus on teaching behaviors rather than on people, emphasize sharing information from both sides, provide not too much or too little information; and ensure clear communication (Williams, 2007). Collaboration between supervisor and student teacher is very important since this is the opportunity for both parties to seek conclusion and co-construct new insight about the teaching practice together (Holland, 1989; Tang & Chow, 2007). Thus, the role of student teacher is emphasized as an active participant working collaboratively with the supervisor (Charlies, Ria, Bertone, Throhe, & Duran, 2004).

In summary, the supervision procedure s in this study follows the literature reviewed above. The process consists of three supervision stages, including pre-observation, observation, and post-observation.

2.4 Supervisor's feedback

Referring to the responsibilities of the supervisor and the procedure of supervision, there is one element that is obviously important in promoting student teacher's growth at pre-and post-observation conference; that element is feedback.

Feedback is the term refers to information given after a classroom observation to confirm or change student teachers' knowledge, skills, and beliefs (Butler & Winne, 1995; Cole & Chan, 1987; Wiggins, 2012). Scholars indicate that feedback serves several purposes in teacher supervision process, such as:

- Identify teaching gaps and help teachers bridging those gaps (Sadler, 1989).
- Raise teachers' awareness on their teaching in order to reconstruct their behaviors and beliefs (Copland, Ma, & Mann, 2009; Orland-Barak, 2005);
- Provide formative advice to improve teachers' teaching in the future (Lewis, 1998);
- Promote collaboration between the feedback giver and receiver in a way that both parties involve in observing, thinking, and responding on teaching practice (Yuksel, 2011)

Since feedback play an important role in the supervision process, there are several scholars who highlights the characteristics of effective feedback, such as Wiggins (2012), Sadler (1989), and Thurlings, Vermeulen, Bastiaens, and Stignen (2013).

According to Sadler (1989), feedback should consists of three aspects. The first aspect contains descriptions of student teachers' teaching. The second aspect is evaluative comments which connect to the assessment criteria. The last aspect is the target for improvement. Kilbourn, Keating, Murray, and Ross (2005) highlights that the evaluative comment should be constructive and based on the evidence observed. Regarding Wiggins (2012), effective feedback should be 1) goal-oriented; 2)

tangible and transparent; 3) actionable; 4) specific and personalized; 5) timely; 6) ongoing; and 7) consistent. This characteristics are in accordance with the study of Thurlings et al. (2013). They also suggests that feedback should be goal-referenced, specific, neutral, contributive for future improvement, and given to student teachers as soon as possible. Additionally, it should be delivered in two-way communication so that student teachers have an opportunity to engage in the feedback dialogue.

Regarding the literature reviewed, characteristics of effective feedback can be summarized into three aspects according to Scheeler, Ruhl, and McAfee (2004) who classifies the feature of feedback into three aspects, including 1) the nature of the feedback, 2) the temporary dimension, and 3) the role of feedback giver and receiver.

Table 2: Characteristics of effective supervisor's feedback

Feature	Characteristics
1. Nature	1. concrete
	2. descriptive
	3. constructive and formative
Ci	4. goal-oriented
01	5. contributive to future improvement
2. Temporary dimension	1. consistent
	2. timely
3. Role of person	1. engage actively in collaborative feedback discourse.
	2. deliver feedback in a polite and respectful manner

There are several studies that are conducted regarding the supervisor's feedback. Examples of study are provided below:

The findings of Hyland and Loil (2006) confirmed the impact of supervisor's feedback on student teachers' teaching. In their study, the interaction between the supervisor and six ESL student teachers during the post-observation stage were investigated. The result suggested that approaches in giving feedback were influenced by several factors, such as belief about the objective of feedback, attitude towards students, and the perceptions about the supervisor's role. Student teachers were aware of the supervisor's dominate role during the feedback session; however, they still had opportunities to participate and explain about their point of views towards their teaching. Last but not least, student teachers preferred the supervisor to deliver constructive and reflective feedback in a non-threatening way.

Yuksel (2011) conducted a study to investigate the change in language teaching belief of sixteen Turkish student teachers during the post-observation stage. The first group of eight student teachers was receiving peer-mediated feedback while the other group was receiving teacher-mediated feedback. The findings revealed that the student teachers in the peer feedback group were able to reconstruct new teaching belief according to their peer's comments while student teachers in the teacher-mediated group could not change their belief. The researcher explained that it was because the peer feedback group initiated safe environment for student teachers to interact without the fear of being observed criticized. Although teacher in the teacher feedback group tried to provide reflective feedback to the students, they were anxious of being criticized by supervisor and their grade would be affected.

Fongpaiboon (2004) also conducted a study to investigate how a novice teacher changed her teaching performance after getting feedback from the supervisor at the post-observation conference. The results revealed that student teacher was able to make changes in teaching strategies, including questioning techniques, giving explanation, using teaching aids, and lesson instruction; however, the researcher asserted that the changes occurred were mainly surface; they were not effective and

also brought her more problems. The reasons why the teacher's changes were at the surface level because of the lack of opportunity to reflect due to the evaluative directive feedback given by the supervisor. This caused teacher's distrust towards the supervisor due to the belief that she was the victim of the evaluation. Although teacher had chances to write reflective diaries, the data from interview revealed that she never reviewed those diaries before planning the next lessons. This caused some point of the supervisor's feedback were omitted. Lastly, supervisor and teacher had inadequate pre-observation conference to discuss about teacher's plans.

The findings from the study of Scheeler et al. (2004) to indicate content and features of effective performance feedback through empirical literature classified feedback into five types, including 1) corrective feedback or the type of feedback that aimed to provide specific suggestion to correct the error; 2) noncorrective feedback or the type that aims to identify the error but not to correct it; 3) general feedback or the feedback that was nonspecific, but conveyed evaluative trait; 4) positive feedback, such as praise on specific teaching behavior, and 5) specific feedback or feedback discussing on specific expected teaching behavior. Regarding the features of the feedback, the study suggested that 'immediacy' was the characteristic that ensure the effective teaching behavior while 'specific', 'corrective', and 'positive' had direct influence towards the improvement of instruction.

Another study which focuses on the different types of supervisor's feedbacks that could be given to student teachers at the pre-and post-observation conference is conducted by Fernandez and Erbilgin (2009). They analyzed communications recorded during post-observation conferences conducted between supervisors and mathematics student teachers. The analysis revealed five types of feedback commonly exploited, including 1) questioning- supervisor asked questions in order to make teachers' thoughts understandable; 2) describing – supervisor described specific information observed from students' teaching; 3) suggesting- supervisor made

directive or nondirective suggestions related to teachers' teaching; 4) assessing-supervisor provided positive and negative assessment towards teachers' teaching; and 5) explicating-supervisor provided specific explanation on teachers' teaching.

Later, (Chinokul, 2015) exploited the different types of feedback suggested by Fernandez and Erbilgin (2009) in her study which conducted to explore supervision techniques used by a supervisor. The findings from the pre- and post-observation stage revealed that it was essential for supervisors to implement various different types of feedback during the pre-observation to guide teachers' planning. At the post-observation stage, the most important type of feedback was open-ended question which created less-threatening atmosphere and also offered supervisor and student teachers to engage in reflective dialogue regarding the classroom observed.

The studies mentioned above contrast with the findings found from the study of Ibrahim (2013) and Ong'ondo and Borge (2011). Ibrahim (2013) used the supervisory inventory to collect student teachers' opinion towards the supervision approaches used by university supervisor and co-operating teachers, the result revealed that student teachers preferred the collaborative supervision style exploited by co-operating teachers over the directive style used by the university supervisor. Within the collaborative supervision style, the student teachers were welcomed to be a partner in the feedback session. The exchange of idea and the decision making was done based on a mutual agreement. On the other hand, the directive approach, although was used with a good intention to help correcting students' teaching behavior, confined student teachers' role in feedback session to just the 'follower'. Student teachers felt that they were put in an inferior position.

Similarly to the study of Ong'ondo and Borge (2011), they conducted a study with EFL student teachers in Kenya to explore the influence of supervision on their practices of English language teaching. The finding concerning supervisor's feedback revealed most of the feedback given was mainly evaluative, directive, and focused

on general pedagogy; thus, student teachers' role during the feedback session was passive. The post-observation conference did not give student teachers chanced to reflect on their teaching practice. The researchers indicates that student teachers did not see these lacks as problems since Kenya educational culture expected the supervisor to be directive and the student teachers to be directed.

In brief, the research studies reviewed above accentuate the important of flexibility in delivering different types of feedback. Since there is no perfect type of feedback for every student teacher, the supervisor should be able to select a combination of feedback to help fulfilling student teachers' need and to promote their interaction.

2.5 Summary

Teacher supervision is an opportunity for student teachers and supervisor to work together to bring about change in teaching practice. The supervision process is divided into three stages, including 1) pre-observation stage, 2) observation stage, and 3) post-observation stage.

Throughout the three stages of supervision, the supervisor assumes different roles, such as mentor, assessor, and coordinator. Different feedback strategies are also used to support and guide student teachers to reflect, solve problems, and justify their own teaching so that they can continue to perform their practice independently.

Part3: Reflective practice

Since supervision in sociocultural perspective encourages student teachers to be able to internalize and reconstruct their own teaching practice. It is very essential for student teachers to engage in the process of reflection and become reflective practitioner; the person who are able to observe and evaluate their teaching and also the social context where they live (Ho & Richards, 1993a).

3.1 Definitions of reflective practice

Several scholars have defined the term as follows:

According to Dewey (1933a), reflective practice refers to a systematic thinking process about a particular situation based on a careful consideration of an individual's belief in order to decide possible solutions.

Hatton and Smith (1995b) define reflective practice as process of thinking about practice in order to improve.

The term can be referred to a process of self-analysis which the teacher reexamines and asks question regarding his/her teaching experiences and teaching beliefs as to gain better understanding and make improvement (Bound, 2001; Kember, McKay, Sinclair, & Yuet Wong, 2008; Loughran, 2002).

Bigge and Hunt (1979) define reflective practice as a scientific process which teacher is asked to set and test hypothesis as well as collect and analyze data in order to find practical solution based on the evidence collected.

Regarding Finlay (2008), reflective practice means a process of learning which teacher learns through and from experience. The process involves being self-aware and critically evaluating the experience in order to improve the future practice.

According to the definition reviewed, it is clearly evident that reflective practice term carries multiple meanings. Thus, reflective practice in this study means a process of careful self-observation and self-evaluation with the goal of improving the one's own teaching practice. The process requires an individual to analyze a particular teaching problem through his/her prior teaching belief and experiences.

3.2 Reflective practice process

Referring to the definitions reviewed earlier, it is obvious that reflective practice is a goal-directed thinking which differs from other types of thinking which Dewey (1933a) calls undirected though, i.e. daydreaming. Thus, the process of reflective practice is definitely very goal-related which aims at stimulating student individuals' inquiries and challenging them to learn from their success and mistake.

The following section presents well-known reflective processes suggested by three scholars, including, Dewey (1933a), Kolb and Kolbe (2008), and Gibbs (1988).

3.2.1 Dewey's model of reflective practice

Since Dewey views reflection as a systematic process of thinking, his model also mirrored the scientific inquiry that rooted deeply within his belief. His reflective thinking process consists of five stages. Each stage is summarized below:

- 1. Disturbance and uncertainty stage: this is considered a starting point of reflective thought. The process begins when student teachers encounters a disturbing situation which makes them feeling perplexed and unsettled.
- 2. Intellectualization and definition of problem stage: At this stage, student teachers try to distance oneself from the situation in order to find what was wrong.
- 3. Formation of working hypothesis: This stage requires student teachers to analyze the situation by examining data gathered from different sources in order to form a tentative solution
- 4. Reasoning stage: Dewey defines this stage as a though experiment. Student teachers are required to reevaluate the tentative solution proposed from the previous stage before proceeding further to the final stage.
- 5. Testing of hypothesis in action stage: At this stage, student teachers apply the solution in action. There are two kinds of results yielded from this stage: immediate outcome and intellectual outcome. The immediate outcome refers to the situation which the problem is solved and the individual gain control over the situation. The intellectual outcome refers to the situation which the problem is no resolved, then, the idea gained from this situation serves as a resource for the forthcoming situation.

3.2.2 Kolb's experiential learning theory model

Regarding Kolb and Kolbe (2008), learning is viewed as a process whereby knowledge is created through the transformation of experience in which reflection is

presented as a key element. The model consists of four stages as being described below:

- 1. *Concrete Experience (CE)* refers to the stage where story or the event is carefully described;
- 2. *Reflective Observation (RO)* means one becomes aware, analysis and reflection about the factors influencing the experience and the student teachers' roles in it;
- 3. Abstract Conceptualization (AC) is where student teacher try to integrate the new knowledge into the existing;
- 4. Active Experiment (AE) is the stage where the concept is tested in practice or the new plans are made.

Referring to Kolb's model, student teachers are required to reflect on an experience from different perspectives. Within the process of reflection, they engage in abstract conceptualization in order to formulate a principle for improving the situation. Finally, they test what they planned in a new situation to find out the effectiveness of the solution.

3.2.3 Gibb's reflective practice

Built from Kolb's model, Gibb's model consists of six stages guiding by a series of questions. Each stage is described below:





- 1. Description: At this stage, student teachers need to describe what they are reflecting on, including background information of their classroom, students, or the problematic situation encountered. It is important to keep the information provided relevant and to-the-point while not omitting any key information that is necessary to make sense of the event.
- 2. Feelings: This section gives student teachers opportunity to discuss their feelings and thoughts about the experience that they were having at time of the event.
- **3. Evaluation:** Student teachers try to evaluate or make a judgment about what has happened. Incorporating outsider's perspectives and theoretical references also helps providing resourceful discussion to the readers.
- 4 Analysis: All the issues that student teachers have highlighted previously should be taken to analyze separately to consider what have helped or what have hindered the situation.

5 Conclusion: Since student teachers have explored the situation from different angels and already have a lot of information to base their judgment, they bring them all together, develop insight, and make logical conclusion on how their behaviors contribute to the outcome of the situation.

6. Action plan: Student teachers state what to do if they encounter the same situation again.

Regarding the reflective practice model presented above, Gibb's reflective practice model is adopted as this study reflective practice framework due to two reasons as synthesized below:

Table 3: Criteria for choosing reflective practice model

Criteria	Dewey's	Kolb's	Gibb's
	model	model	model
1. Reflection should be situated in context (Finlay, 2008;	-1	X	-1
Kayes, 2002).	V	^	√
2. Reflection should consists of guiding questions (Ghaye,			,
2011).	X	×	٧

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The two criteria stated in the table are set according to the concept of sociocultural theory. SCT states that student teachers acquire knowledge through mediation with people or tools situated within a social context. With this concept in mind, it indicates that student teachers learn to reflect by using guiding questions as scaffolding to reinterpret a situation happened in classroom context. Referring to the table, Gibb's model fit perfectly with the concept of SCT.

3.3 Outcomes of reflective practice

Evidence of related literature suggested different focuses on the outcome of reflective practice. One of the key objectives of reflective practice is to help practitioners understand the links between practice and how they might improve their effectiveness (Blackwell, Bowes, Harvey, Hesketh, & Knight, 2001; Ghaye, 2011). Since reflective practice is viewed as a link to practice. Through this process, student teachers are expected to develop new insights and understanding that would help them improving their teaching habits (Ghaye, 2011; Lee, 2005). On the other hand, the expected result from reflective practice process is 'change', whether change in their classroom practice, in their students' learning outcomes, or in their attitudes and beliefs (Guskey, 2002).

By reviewing studies related to reflective practice, two types of changes which are change in knowledge of self and change in teaching performance are synthesized as follows:

3.3.1 Change in knowledge of self

The knowledge of self includes knowledge of personal values, personality, strength, weakness, personal belief about teaching and learning language, and knowledge about professional identity (Beijaard, Verloop, & Vermunt, 2000; P. Grossman, 1995; Van Driel, Beijaard, & Verloop, 2001). Examples of study which reveal this type of change are:

The study by Freese (2006) has provided a clear picture of how reflection influences student teacher's knowledge of self through the journey of Ryan. The study showed that over two years of engaging Ryan in reflection, he transformed himself from a very close-minded, denial, and blaming teacher to be more open-minded and understanding person. These indicated change in terms of his belief, attitude, and commitment.

Cattley (2007), in her study, asked eight pre-service teachers to write reflective logs over eight weeks of practicum, the study revealed that the analytical and evaluative aspect of reflection supported teacher identity formation, such as self-understanding, self- efficacy, and self-value. She also suggested that by engaging

in the critical levels of reflection, pre-service teachers were likely to focus more on broader picture of social context of classroom rather than on just teaching skills or lesson achievement.

Kabilan (2007) indicated a similar outcome of reflective practice from his study which asked a group of Malaysian English language teacher to reflect on their reflection. He found out that by going through reflective process, his student teachers develop their awareness of meaningful and effective classroom practice which helped heightening their confidence as future teachers.

Rodgers (2002) who referred to self-awareness as an outcome of reflective practice based on Dewey's perspective. During this journey, he found that student teachers exhibited development in terms of knowledge of self in three levels: 1) growing pass from self-absorption, 2) forgetting oneself, and 3) reaching self-awareness.

3.3.2 Change in teaching performance

Research has shown that reflective practice can lead to teacher's improvement in terms of understanding and practice about teaching pedagogy, classroom management, and professionalism (S. Grossman & Williston, 2003). Although it is often claimed that reflection can improve practice, the evidence is still not strong (Coats, 2005; Griffiths, 2000). What researchers has been presenting so far is how reflection serves as a conceptual change for teachers to reevaluate their teaching practice which later leads to change in their performance (Mcalpine & Weston, 2000). Examples of studies are reviewed below:

Malatji and Wadesango (2014) conducted open-ended questionnaires and one-on-on interview with twenty teachers to investigate how self-reflection improved their practice. No quantitative or statistic evidence was mentioned; however, the qualitative data revealed that teachers self-reflection enabled them to identify their mistakes; therefore they could improve their teaching.

A.R. Freese (1999) explored the impact of reflective practice on student teachers' view of teaching through individual interviews. Although there was no

quantitative data involved, qualitative data analysis revealed the transformation of practice happened during planning and teaching stage. The student teachers reported that reflective practice helped improving their teaching in planning stage where they could frame and reframe their thinking about the lesson and the teaching situation. In this way they could reduce the uncertainties that might happen in their teaching. Reflection also changed their teaching pattern as well. One of the pre-service teacher commented that reflection made her more thoughtful and deliberate by being conscious for her decision making during the act of teaching. She realized the importance of taking time during teaching to review and assess the situation before adjust her lesson.

Similarly to Mcalpine and Weston (2000) who indicated that change in practice occurred in either goal setting or teaching stage. A report of engaging student teachers in video-enhanced reflection studied by G. A. Wright (2008) also suggested that video-enhanced reflection provided additional perspectives which helped increasing student teachers' ability to identify areas for improvement in their teaching.

At the end of the day, should an assumption, such as 'a change in knowledge definitely lead to a change in teaching practice' be raised? The answer would be 'it is not guaranteed'. One may not execute a good practice if one only builds a repertoire of knowledge and has understanding of teaching, but fails to link them with previous experience or with future teaching practice (Mcalpine & Weston, 2000).

3.4 Reflective journal

Ability to reflect is surely a prominent character for teachers, both in-service and pre-service ones. Pre-service teachers start to develop the 'ability to see' reality about teaching during their practicum experience (Nilssen, 2010). They also learn to revisit their personal beliefs and knowledge, to reconstruct them, and to contribute that renewed understanding into practice again. A number of methods to foster reflective practice in pre-service teachers have been suggested.

Some studies suggest that pre-service teachers can reflect through portfolio (Borko, Michalec, Timmons, & Siddle, 1997; Fernsten & Fernsten, 2005), reflective interviews (Trumball & Slack, 1991), action research (McIntosh, 2010), peer observation (Bell, 2001), collaborative peer review (Wood & Freney, 2007), and reflective journal (Borg, 2001). However, it is not too exaggerated to say that 'reflective journal'; a written form in this case, is widely acknowledged as important tools promoting reflective practice.

Reflective journal is a tool which claimed to be:

- a flexible tool (Burton, 2009),
- a place to clarify difficult questions with no easy answers (Chiptin,
 2006),
- an individual activity that teachers record ideas, thoughts, reflections and feelings to paper (Gilmore, 1996)
- an individual activity which has been written for over a period of time and also maintained with the intention of improving or supporting learning (J. A. Moon, 2001).

In brief, Promsaree (2010) provided a quite concise definition as a tool to record personal stories, behaviors, satisfactions, dissatisfactions, improvements, and problems occurred in classes that need to be solve. This tool aims at improving teachers' teaching and students' learning; therefore, it needs to be done with careful observation, analysis and reflection.

3.4.1 Process of reflective journal writing

The process of writing reflective journal should coordinate with the process of reflective practice. The one proposed by Smyth (1989) is the best match with criteria used for selecting reflective practice model used earlier. The first criterion mentions that reflection should be situated in context while the other states that

guiding questions are very important for reflective practice process. Smyth's writing procedure consists of four sequential stages; each stage is guided by a related question. More detail is provided below.

- 1. Describing: What do I do?: Student teachers give detailed and concrete teaching events without judgment. Through this narrative, not only readers but also the writer herself gain initial understanding of how the whole situation is formed.
- 2. Informing: What does this mean?: Student teachers start 'unpacking' and 'searching' for patterns or principles behind the situation. At this stage, they their thinking process away from the superficial interpretation into deeper analysis to define the assumption of the situation.
- 3. Confronting: How did I come to be this ways?: Teaching is not an isolated process; it is situated in a broader cultural, social, and political context that teachers themselves may not be aware of. Thus, examining how these factors shaped the construction of their teaching practice and teaching values broaden pre-service teachers' views beyond just their classroom and school.
- 4. Reconstructing: How might I view/ do things differently?: When student teachers are able to see the correlation between their day-to-day aspects of teaching with wider political and social realities, they widen their perception about the obstacles happened and come up with the solution. Being reflective means more than just being speculative, but it means discovering alternative ways to overcome reality.

After reviewing Gibb's reflective practice model and Smyth's process of reflective journal writing, the researcher synthesizes the two concepts to design the reflective journaling process for student teachers in this study to use at the post-observation stage. More information is presented below.

Table 4: Synthesis of reflective journaling process used in this study

Gibb's reflective practice	Smyth's reflective journal	Reflective journaling
process	writing process	process used in this study
1. Description	1. Describing	1. Focus
(What happened?)	(What do I do?)	(What is the description of
- Concentrate on the	- Concentrate on the	your classroom challenge?)
situation details.	situation details.	
		- Focus on the challenging
		situation and give concise
	53/11/1/10	nonjudgmental detail
2. Feelings		
(What were you thinking		2. Questioning
and feeling?)		(Why things happened this
- Concentrate on emotion		way?)
and personal thought		
3. Evaluation	2. Informing	- Analyze the situation and
(What was good and bad	(What does this mean?)	seek explanation about
about the experience?)	- Analyze the hidden	what caused the challenge.
- Evaluate what happened.	principles behind the	
านา	situation	
	LONGKORN UNIVERSITY	3. Confronting
		(How did you solve that
4. Analysis		challenge? /
(What sense can you make	3. Confronting	How effective was your
of the situation?)	(How did I come to be this	decision?)
- Analyze both positive and	way?)	
negative aspect of the	- Investigate how social,	- Describe how the
situation.	political, and cultural	challenging situation was
	perspective influence the	solved and analyze the
	situation.	effectiveness of the
		solution.
5. Conclusion		4. Supporting belief
(What else could you have		(Why did you decide to
done?)		solve the challenge that

- Conclude how effective		way?)
the idea contributes to the		
situation.		- Examine reasons,
		principles, and theories that
		influenced the decision.
6 Action plan	4. Reconstructing	5. Promising change
<u>6. Action plan</u>	4. Neconstructing	J. FIOITIISTING CHAINGE
(If it arose again, what	(How might I view/do things	(How would you do things
•	_	
(If it arose again, what	(How might I view/do things	(How would you do things
(If it arose again, what would you do?)	(How might I view/do things differently)	(How would you do things differently if the same

Thus, reflective practice process and journaling process in this study consists of five stages, including 1) focusing; 2) questioning; 3) confronting; 4) supporting belief; and 5) promising change.

3.4.2 Reflective journal Evaluation

We can assume that quality in student teachers' learning is evidenced by the depth in their reflection (J. Moon, 2007). However, this assumption is usually devalued because it is very challenging to evaluate their reflection (Ward & McCotter, 2004b). With regard to the studies of reflective journal evaluation, an extensive review of literature is studied, such as studies of Larrivee (2008b), Ward and McCotter (2004b), and Hatton and Smith (1995a).

Table 5: Summary of studies relating to levels of reflection

	Ward & McCotter (2004)	Hatton and Smith (1995a)	Larrivee (2008b)
Level1	Routine reflection	Descriptive writing	<u>Pre-reflection</u>
	-It reveals lack of	- It provides description of	- The content shows
	curiosity, lack of	event. No discussion	teacher's lack of
	attention, and lack of	beyond description is	attention and lack of
	responsibility for change.	discussed;	curiosity regarding the
	- The content does not	- The writing is	, 3
	focus on problem. It is	considered not showing	teaching practice.

	short and also places	evident of reflection.	- Automatic response
	blame on others.		without conscious
			consideration of
			alternative responses is
			made.
			- Students or others are
			to blame for problems
			occurred; teachers are
			victim of circumstances.
			victim of circumstances.
Level2	Technical reflection	Descriptive reflection	Surface reflection
	- The content mainly	- The content also	- The content focuses on
	focuses on teaching tasks,	contains description of	strategies and methods
	teaching outcomes, and	events, but shows some	used to reach lesson
	teaching methods.	evidence of consideration	objectives.
	- The attempt to solve	using descriptive	
	problems is visible, but it	language;	
	does not lead to further	- Discussion focuses on	
	or deeper questioning or	personal viewpoints.	
	practice.	S. C.	
Leve3	<u>Dialogic reflection</u>	<u>Dialogic reflection</u>	Pedagogical reflection
	- The content focuses on	- The content connotes a	- The content reflects on
	the process of learning	sense of 'stepping back'	educational goals,
	and students' needs as	from the situation and a	theories underlying
	well as involves	sense of 'dialogue with	approaches and the
	discussion regarding the	self';	connections between
			connections between
	view of others	- Provide discussion	theoretical principles and
	view of others - New insight is usually	- Provide discussion regarding other people's	
		regarding other people's point of view;	theoretical principles and
	- New insight is usually	regarding other people's	theoretical principles and
	- New insight is usually	regarding other people's point of view;	theoretical principles and
	- New insight is usually	regarding other people's point of view; - The reflection is	theoretical principles and
	- New insight is usually	regarding other people's point of view; - The reflection is analytical, or integrative	theoretical principles and
	- New insight is usually	regarding other people's point of view; - The reflection is analytical, or integrative which trying to link situation with several perspectives;	theoretical principles and practice.
Level4	- New insight is usually presented. Transformative	regarding other people's point of view; - The reflection is analytical, or integrative which trying to link situation with several	theoretical principles and practice. Critical reflection
Level4	- New insight is usually presented.	regarding other people's point of view; - The reflection is analytical, or integrative which trying to link situation with several perspectives;	theoretical principles and practice.

questions fundamental	aware of how socio-	moral and ethical
assumptions and	cultural factors influence	implications and
purposes of teaching	classroom teaching.	consequences of those
or/and learning process.		on teaching practice,
- A change in perception		examination of personal
is visible.		and professional belief
		systems, and relationship
		between classroom and
		social factors.

Based on the studies of level of reflection reviewed, the depth of reflection in this study is also synthesized into 4 levels as presented below:

1) Non-reflection level

At this level, it is obvious that the reflection is done just to fulfill the requirement. The reflection obviously shows student teachers' ignorance and the belief that the classroom situation is beyond their control.

2) Descriptive reflection level

At this level, the reflection demonstrates student teachers' general understanding towards the classroom situation; however, it limits the analysis on teaching practice and confines to student teachers' personal perspective only.

3) Pedagogical reflection level

At this level, the reflection demonstrates student teachers' deeper analysis of the classroom situation. They are able to acknowledge the consequence of students' learning and their learning experience towards their teaching. They are able to strengthen their reasoning through assimilation from various perspectives.

4) Critical reflection level

At this level, the reflection demonstrates student teachers' recognition of how their personal belief and other social factors contribute to their classroom situation. They are able to question and validate their own belief about teaching.

However, scholars have reported that the highest level of reflection is difficult to achieve by inexperienced student teachers. El-Dib (2007) reported the analysis of student teachers' written journals that more than 50% of the student teachers

participating in his study fell at either the low –low-medium level of reflection in all domains.

Similar to the study of Ho and Richards (1993b) who found that there was no significant impact on pre-service teachers' reflection level due to two reasons: the short time allowance and pre-service teachers' perception towards teacher journaling as routine activity. Poom-Valickis and Mathews (2013) confirmed this hypothesis through their result which revealed that most pre-service teachers were superficial in their analysis of their classroom cases and also placed blame of their causes to external factors. This may cause difficulty to find lasting solution if teachers failed to understand their roles in preventing and solving them.

Ward and McCotter (2004b) also encountered similar result; however, they argued that although the reflection levels 3 and 4 are desired since they represented the deeper reflection, they are not always the most appropriate or needed forms of reflection. They did not perceive the low levels of reflection as a threat but rather beginning stages containing the seeds for deeper reflection later on.

Results from these studies seem to echoed a stage of conceptualized growth proposed by Fuller (1969). Teacher concerns are divided into three phases: preteaching phase, early teaching phase, and a late teaching phase. The time span of the pre-teaching phase has been between the student teachers' and novice teacher's period where teachers' concerned is mostly about their anticipation and apprehension which considered vague and less relevant to teaching. However, teachers' concerns seemed to change when they entered early teaching and late teaching phase. During early teaching phase, teachers turned their concern towards themselves and others'. The late teaching phase focused more on their contribution to students and on self-evaluation in terms of students' gains.

3.4.3 Challenges of Reflective Journal

Implementing reflective journal with student teachers has met several challenges. Examples of studies relating to this topic are presented below:

Otienoh (2009) conducted a small-scale qualitative study to explore the challenges pre-service teacher in Tanzania, Africa encountered through journaling. Researcher reported that the prominent challenge was the lack of time and exhaustion due to heavy school workloads. Additionally, student teachers' lack of understanding of the reflective practice process as well as the blindness towards reflective journaling value also led to boredom and negative viewpoint seeing journaling as just routine. Lastly, pre-service teachers were discouraged by feedbacks given. Although comments, questions, and remarks were for facilitating pre-service teachers' reflection, the nature of them and the way they were written could develop pre-service teachers' negative attitude towards journaling.

Accroding to Hobbs (2007), the analysis of twelve teachers' teaching journals participated in TESOL program of Trinity College London revealed some problems that affected the quality of reflective journal and teachers' thinking process. Hobbs reported that teachers tended to write 'strategic journal entries'. The more evidences they provided, the better mark they got from tutors. The strategic journal entries are a threat to reliability of reflective journaling in a way that it downplayed the genuine attempt to examine teachers' self to just a fake response. Another problem found was negative attitude towards reflective journaling. The inexperienced teachers in this study viewed journal as a waste of time while the experienced teachers resented having to engage in reflection process.

These problems echoed three key attitudes that are necessary for student teachers to be reflective: open-mindedness, responsibility and wholeheartedness (Dewey, 1933b). According to Dewey, open-mindedness is the most important attitude of reflection and is defined as the ability to remain open to multiple, alternative ideas. Although student teachers may have certain values and believes about teaching and learning, those who are open-minded are aware of multiple ways of noticing; understanding and working towards improving their teaching practice as well as are able to accept strengths and weakness of their perspective when being criticized. Responsibility is another attitude that promotes reflection. A responsible teacher according to Dewey means intentionally reflect upon one's actions to bring about improvements in practice. The last attitude is wholeheartedness. Teachers

who are whole hearted in their reflection will have a desired to learn new things through their reflections.

3.5 Summary

Reflective practice is considered a crucial process that provides student teachers with means to internalize their teaching practice and become self-directed. By exploring one's own practice, full comprehension towards belief, teaching assumption, teaching methodology, and classroom context emerges (Chinokul, 2005; Richard & Lockhart, 1994). Thus, it is important that supervisor encourages student teacher to reflect and craft their own context-specific response to improve their teaching practice

The process of reflective practice and reflective journaling consist of five stages: 1) focusing, 2) questioning, 3) confronting, 4) supporting belief, and 5) promising change. The levels of reflection consist of four levels, including 1) non-reflection, 2) descriptive reflection, 3) pedagogical reflection, and 4) critical reflection.

In next section, literature review related to teaching performance is presented.

Part4: Teaching performance

Change in teaching performance as mentioned in the last section is considered a desirable outcome; therefore, more literature related to this term is reviewed within this section.

4.1 Definitions of teaching performance

The term performance, although appears as a simple term, it have been misconceived with several terms, such as effectiveness, competency, and skills. Performance focuses mainly on actions. However, teacher effectiveness according to Newton (2010) is defined not by a teacher's actions or skills but by the results for students. Competency, on the other hand, has been perceived as a combination of

skills, abilities, and knowledge needed to perform a specific task (U.S. Department of Education 2001). Thus, teaching performance is defined as:

Miller (1990) defines teaching performance as the 'show how'. The definition connotes the meaning that teachers should be able to demonstrate the knowledge, skill, and abilities they have in action.

Campbell et al. (1993) describes teaching performance as observable, measurable and goal-relevant actions a teacher to do well.

Brown (2004) also views teaching performance as actions that can be observed.

According to Schacter (2001), teaching performance means how teachers demonstrate what they know and are able to do through their actions.

Onyeachu (1996) views teaching performance as measurable teaching behaviors that represent different aspects of teaching, including subject mastery, effective communication, lesson preparation, and lesson presentation.

Regarding the literature review, the most common definition of this term is teacher's observable behaviors. Teaching performance in this study; thus, refers to the observable and measurable teacher's behaviors demonstrated during the planning and teaching stage which reflect how the teacher incorporate knowledge and skills about teaching, students, and context in to actions.

4.2 Key teaching performance domains

Different scholars have suggested that there are multiple ways to define and measure the quality of teacher's performance because teaching is a situated activity occurs to specific groups of people within specific context (Campbell, Kyriakides, Muijs, & Robbinson, 2004; Darling-Hammond, 2007); thus, the assessment of teaching performance is different from context to context.

Darling-Hammond (2006) states that student teachers should possess the knowledge and skills in theses following areas: 1) Knowledge of subject matter; 2) Knowledge of human development and learning; 3) Adapting instructing for individual needs; 4) Multiple instructional strategies; 5) Classroom motivation and management

skills; 6) Communication skills; 7) Instructional planning skills; 8) Assessment of student learning; 9) Professional commitment and responsibility; and 10) Partnership.

Comission on Teacher Credentialing (2009) suggests six key behaviors which student teachers should be able to perform during instructional process. The key performances are: 1) Engaging and supporting all students in learning; 2) Creating and maintaining effective environment for student learning; 3) Understanding and organizing subject matter for student learning; 4) Planning instruction and designing learning experience for all students; 5) Assessing students for learning; and 6) Developing a professional educator.

Chinokul (2005) suggests that student teachers should be able to demonstrate performance regarding these following domains: 1) knowledge about subject matter and teaching methodologies; 2) instructional abilities; 3) class room management and student management skills; 4) interpersonal skills; and 5) professional value.

There are several scholars who provide extensive information regarding student teachers' teaching performance. For example, Richards (2011a) dedicates one of his book entitled 'Competence and Performance in Language Teaching' to describe the performance domains that student teachers should be able to demonstrate. T. Wright (2005) mentions about classroom management, and Chappuis, Stiggins, Chappuis, and Arter (2012) provides information about teachers' classroom assessment.

Regarding the literature above, the key teaching performance of student teachers are synthesized according to teaching stages. The table below gives further information:

Table 6: Key domains of student teachers' teaching performance

Teaching stages	Teaching performance domains	
1. Lesson planning	1. Demonstrate instructional planning ability	
stage 2. Demonstrate knowledge about subject matter,		
	teaching methodologies, students, and context	
2. Lesson presenting 1. Demonstrate instructional abilities, such as adapti		

stage	instruction to suit individual's needs	
	2. Demonstrate interpersonal skills, such as engaging and	
	supporting all students in learning	
	3. Demonstrate classroom management skills	
3. Lesson assessment	1. Demonstrate ability to assess students' learning	
stage		
4. Professional	1. Demonstrate ability to reflect on one's own teaching	
development stage	practice in order to make improvement.	

4.3 Variables influence student teachers' teaching performance

The studies about variables that influence student teachers' teaching performance can be synthesized into three main types: motivation, reflection, and feedback. Each type of variable is presented below:

1. Motivation

The motivation literature suggests that motivations can determine student teachers' performance in any teaching activities regarding three areas; 1) their attraction towards the activities; 2) their retention in engaging in those activities; and 3) their commitment in doing those activities (McInerney, Maeher, & Dowson, 2004; Sinclair, Dowson, & McInerney, 2006). Two types of motivation mostly discussed are 1) intrinsic/ internal motivation and 2) extrinsic/ external motivation. Individuals intrinsically motivated perform any actions regarding their internal drive; whereas, those who extrinsically motivated do any actions because they expect a particular outcome (Ryan & Deci, 2000).

Dinham and Scott (2000) conducted a survey with 2000 teachers in England, New Zealand and Australia to explore factors that influence teachers' teaching. The result reveals that the major source of demotivation lied in extrinsic domain, such as condition of work, workload and working with other staff. In contrast, student achievement, positive relationships with students, and desire for professional development internally drive teachers to perform better.

Pertain to Bruinsma and Jansen's finding (2010) which also indicated a positive relationship between student teachers' intrinsic motivation, quality of

teacher preparation program and the practicum experiences. Student teachers who entered the teacher preparation program for intrinsic motivation rather than extrinsic one were presumably to a higher quality of teacher preparation program, positive practicum experiences as well as better teaching performances. The maintaining of intrinsic motivation will contribute to improvement in their teaching practice.

Also, the students' achievement and teachers' self-drive is mentioned as reasons why student teachers are motivated to improve their teaching by Gorge and Sabapathy (2011).

In conclusion, there is possibility that teachers who teach for perusing personal goal and for their students' achievement will also motivate their students' learning in return.

2. Feedback

Feedback from supervisor and other stakeholders also play an important role in improving student teachers' teaching performance. Regarding the literature review about scaffolding and supervisor's feedback, it is proved that meaningful feedback provides student teachers with an understanding of how they can close the gap between current and expected performance as well as helps them regulate their own teaching (Boud, 2000; Taras, 2005).

Richards, Gallo, and Renandya (2001) suggested that complex interactions, such as formal or informal dialogue with supervisors, colleagues, co-operating teachers, or even with oneself had positive influence in changing student teachers' teaching performance. It served as a trigger of new idea.

Yariv (2011) also found that the collegial peer support, supervisor's guidance and consulting services helped assisting student teachers to overcome their poor teaching performance.

Tschannen-Moran, Hoy, and Hoy (1998) mentions that specific performance feedback from supervisors and from other sources were an information resource of how student teachers' skills and teaching performance would match the demand of a particular teaching task. They also reminded that overly harsh and general

feedback might lower student teachers' self-esteem which led to undesirable result. Thus, constructive and focused feedbacks were more desirable.

3. Reflection

The last variable influences student teachers' teaching practice is reflection. As mentioned earlier, the empirical evidence which indicate correlation among these two concepts is minimal. However, there are a handful of qualitative studies that support this assumption.

Freidus (1997) reported a case study with one student teacher who was struggling to make sense of her belief about what was good teaching. Through a series of reflection she began to realize the mismatch in her primary belief and the expectation of the school. She realized that her initial belief about teaching was based on traditional and directive teaching while the expectation of the school geared towards student-centeredness. At the end, she was able to validate and redefine her teaching to align with the school's expectation.

Bailey (1992) also mentioned when reflecting on dissatisfaction in current teaching practice, student teachers had chances to explore the situation and hypothesize possible solution based on the evidence collected.

In brief, reflection provides student teachers with a deeper understanding of their teaching practice, their students, and their current context (Ferraro, 2000). This insight leads to greater effectiveness which is a validation on their performance and development in their profession.

4.4 Summary

Improvement in teaching performance is the most obvious way to determine student teachers' teaching development since the performance is observable and measurable. Teaching performances can be classified in to 4 domains according to teaching stages: 1) lesson planning domain, 2) lesson presenting domain, 3) lesson assessment domain, and 4) professional development domain.

Additionally, there are several variables influence the performance of a student teacher, such as intrinsic/extrinsic drive, feedback from others, and reflection.

In conclusion, the literature in this section suggests that it requires efforts from student teachers' self and from others to help make the development in teaching performance happens.

Part5: Blended learning approach

In the information revolution age, the invention of the World Wide Web enables students to get access to information and communicate with other individual easily and quickly than ever before. The concept of blended learning approach emerges with an intention that by blending traditional face-to-face instruction with online learning/ teaching environment, it can provide new teaching/learning approaches, greater access to learning, and greater diversity (Howard, Remenyi, & Pap, 2006; Marsh, 2012). The following section presents how blended learning approach is defined by different scholars.

5.1 Blended learning approach definitions

It is said that blended learning means different things to different people (Driscoll, 2002), thus, the following definitions provide fundamental understanding of how this concept means in different points of view. Based on his article, the definitions of blended learning are classified into four groups:

- 1. The combination of mix instructional modalities between web-based technologies with traditional classroom to achieve instructional goals. This definition aligns with the idea proposed by Singh (2003) who sees blended learning as a mix of face-to-face teacher-led classrooms with multiple technological delivery in order to achieve the goal. The different modes of instructional delivery encourage different types of learners to learn to their full potential.
- 2. The combination of variety of teaching pedagogy to produce expected learning outcome. This can be achieved with/without the use of technology. Sinthaworn (2010) also defines the concept as the mix of learning theories to answer the students' diversity.

3. the combination of traditional face-to-face classroom with various forms of technologies, i.e. videotape, film, websites, etc. Graham (2004) also perceives blended learning as the combination of instruction from two separate models: face-to-face learning system and computer-mediated elements.

Thorne (2003) also sees the blended learning as an educational model that integrates e-learning with traditional learning. Through this type of model, technological development is combined with classroom interaction which helps enhancing students' learning through personal communication with the teacher.

Similarly to Garnham and Kaleta (2002) who defines blended learning as the combination of the best features of tradition teaching with the best features of online learning which help reducing class seat time and also enables students to become active independent learners.

Negamine (2011) also defines blended learning approach as the integration of face-to-face classroom learning with e-learning. This definition aligns with the meaning given by Oliver and Trigwell (2005) who also views blended learning as the combination of traditional learning with web-based online approaches. In summary, this concept

4. The combination of instructional technology with real-world job tasks to create a balanced proportion between working and learning.

Considering the definitions reviewed, the concept of blended learning in this study is defined as a flexible teaching and learning approach which integrates various instructional methods, different instructional media delivery, and combines face-to-face with online teaching and learning environment. The aims of this approach are to create a learning environment where students with different learning preferences have opportunities to learn, improve, and achieve learning goals.

5.2 Levels of blended learning course

In this section, the proportion of face-to-face and online environment within a blended learning is reviewed.

Dudeney and Hockly (2007, pp. 138-139) refer to blended learning course as a course which 75% of the content is delivered online and 25% is delivered within face-to-face classroom.

Gruba and Hinkelman (2012, p. 4) mention that a course is considered a blended/hybrid course when online activities replace 45-80% of face-to-face class meetings.

Allen et al. (2007) who work with Sloan Consortium give a clear standard of how much content should be delivered online for a course to be called 'blended learning course' as follows:

Table 7: Levels of blended learning course proposed by Sloan Consortium (2007)

		Proportion of
Type of	Parking and	content
course	Description	delivered
		online
Traditional	A complete traditional course; no online technology	0%
	used.	
Web facilitated	A course which uses web-based technology, such as	1-29%
	LMS, CMS to facilitate the face-to-face course.	
Blended/Hybrid	A course which combines online and face-to-face	30-79%
	delivery. Online communication deliveries, such as	
	online discussion, e-mail, chat are used as a	
	substantial for face-to-face meetings.	
Online	A course which most of the content is delivered	80+%
	online; there is no face-to-face meetings at all.	

Although there are not extensive reviews about the different percentage about proportion of face-to-face and online content, the review above can be summarized that the proportion of the two deliveries consists of 25% of face-to-face content to 79% of online content. Thus, the proportion of online and face-to-face content used in this study model is 30% of face-to-face content and 70% of online

content since the amount of online activity, communication, and content are greater than these implements in face-to-face.

5.3 Benefits of blended learning

There are several reasons why blended learning is vastly employed nowadays. The advantages of blended learning can be synthesized into four aspects regarding Graham (2004) and Osguthorpe and Graham (2003) as follows:

1. Pedagogical richness

The study of Pardo-Gonzalez (2013) with EFL students suggested that the blended learning promoted students' diversity and addressed their different study habits and learning pace since it allowed them to work comfortably at their own speed outside the class. Besides accommodating variety of learning styles, blended learning also providing personalized support and individualized learning experience (Caner, 2010; Ruthven-Stuart, 2003). For example, teachers were able to combined approaches to cater for the needs of the diverse students and to create opportunities to make their learning an equally successful experience (Huang, Zhou, & Wang, 2008).

Vesisenaho et al. (2010) who applied Wiki in their biology course found out that this social software helped supporting collaborative learning between students, especially if they were assigned to role of producer of content since they were encouraged to take the active role to interpret the class content, create conversation among peers and improvise their learning. Thorsteinsson and Page (2007) who applied the Managed Learning Environment (MLE) in their in-service teacher's practicum field found that it gave opportunities for teachers to practice their thinking skill and problem solving abilities since the MLE was designed for multiple learners

to communicate ideas, share information, and provide feedback on problem-solving activities.

2. Increased access to knowledge/ flexibility

Blended learning course had high flexibility. It allowed students to access the materials anytime, anyplace. On the other hand, the blended course helped reducing time and space commitment, lessening stressful environment, and giving students easy access (Ruthven-Stuart, 2003; Wingard, 2004). Not only students but blended learning course also encouraged teachers to extend their teaching outside class and provides extra resources for students who need extra help (Huang et al., 2008; Roavi & Jordan, 2004).

3. Increased cost effectiveness

Huang et al. (2008) asserted that by incorporating blended learning, it helped decreasing the administrator's workload. A ton of paper work was replaced by limited e-work which could be achieved within a mouse-click. Robinson (2005) also found out that by incorporating technology to the instructional design, the costs are lower than face-to-face course offering. This finding is aligned with the study of Bourne, Harris, and Mayadas (2005) who indicated that the costs for online course delivery were comparable to the face-to-face course; however the online course sizes are more scalable.

4. Social interaction

Blended learning is considered a socio-mental tools (Thorsteinsson & Page, 2007). It promoted interaction between teacher and students online and face-to-face. In online environment, it provided non-face-threatening environment for all students to ask questions and engage in feedback sessions, including the introverted ones. In face-to-face environment, students also reported their preference towards getting immediate feedback from peers and teacher in particular situation (Pardo-Gonzalez, 2013). The course also provided strong socialization feeling and

establishing a sense of community when comparing to the traditional classroom (Caner, 2010; Roavi & Jordan, 2004)

5.4 Challenges of blended learning

If every coin has two sides, using blended learning in classroom also yields two contradict impacts. On one hand, it claims to support teaching and learning, but also brings up challenges as well. Harriman (2004) asserts that by implementation of blended learning, teachers and administrators may face with several challenges regarding the course design and management challenges as well as the teachers' and students' roles and responsibilities challenges. Furthermore, time management issue seems to be the most discussed problem among scholars.

Jeffrey, Milne, and Suddaby (2014) reported that some teachers who had been integrating blended learning in their classes indicated their preference for traditional classroom over the blended one. They mentioned that the traditional classroom exerted stronger impact over the online course due to the presence of teachers. Furthermore, they also reported the frustration with the online course due to their inability to personalize the system and to maximize the real potential of the blended learning course. When interviewing further, the finding revealed that the prominent problem in this study was teachers' lack of time. They could not invest a quality of time in accommodating online interactions since this affected their time in completing other school responsibilities.

Similarly to Piskurich (2006) who mentioned about time consuming in designing the blended learning tasks. In order to support students' diversity and their autonomous learning, both online and face-to-face tasks needed to be designed and executed carefully. In order to do so, teachers were required to spend more of their time to monitor through online communication interaction. This findings also aligns with the study of Hughes (2007) who applied the use of virtual learning environment to support students in distance area. He found out that although the VLE yielded several advantages, its prominent downside reported by the teacher was 'time-consuming'. She reported committing too much extra time during the early weeks of the semester supporting students who faced technical problems.

Ruthven-Stuart (2003) brought up another three areas of problems regarding technological issues and the support from larger scale, such as institution. The successful of blended learning integration should represent the cohesion of higher education level, such as university level and smaller level, such as single course level.

The limitation in terms of students and teachers technological capabilities had a direct effect on what teachers had prevented them to exploit the blended learning full potential. Hughes (2007) agreed that the less experienced students and teachers in terms of technology were not able to gain impressive results with blended learning without offering further training or expert mentor.

5.5 Facebook

There are different synchronous and asynchronous tools that can be employed within the blended learning model, such as chat, real time audio, webbased videoconferencing, webboard, and e-mail (Sinthaworn, 2010). The main online tool used in this study is one of the social networking websites called Facebook. Thus, these two concepts are reviewed in this section.

Social networking site is defined as a web-based service that allows individuals to 1) access the website and construct a public/semi-public profile without any need to download special software in order to participate; 2) establish social connections with other users; and 3) access and browse through their list of social connections by themselves of by others without special built-in browsing support needed (Boyd & Ellison, 2007; Golbeck, 2005; Green & Hannon, 2007). The more simpler definition of social networking site is referred as an Internet community created for individuals to socialize, interact, as well as to share experience and information through profiles that represent their public persona (Acquisti & Gross, 2006; Pehr, Max, & Rickard, 2011; Safko & Brake, 2010). Examples of social networking webiste are Hi5, MySpace, Ning, Youmeo; however, the most well-known social network nowadays is Facebook (Solomon & Schrum, 2010).

McCarthy (2010) and (Coklar, 2012) describe the function of Facebook as it allows its users to do theses following activities: 1) set up a personal page, 2) share personal information, photo, videos, texts on their walls, 3) allow friends to post and share information as well as comment on their walls, 4) add friends to create social network list, online event, page, and group, and 5) communicate through chat-instant message. Unlike other social network websites, Facebook users have flexibility to adjust privacy on their information in terms of searchability and visibility based various choices of FB privacy default setting which range from very loose (public) to absolute control (only me) (Acquisti & Gross, 2006). Furthermore, it was easy to use and its access speed was fast (Wang, Woo, & Quek, 2012).

Referring to the features reviewed above, it is no wonder why Facebook has gradually used as a supplement tool to face-to-face teaching (Yuen, Deng, Fox, & Yavares, 2009). Barnett-Queen, Blair, and Merrick (2005) mentioned that students were more willing to express their opinions either agreement or disagreement in online rather than face-to-face discussion. The studies of Yu, Tian, Vogel, and Kwok (2010) also revealed that the use of Facebook helped increasing students' self-esteem and strengthening social interaction.

5.6 Blended learning supervision

It cannot be denied that blended learning and technologies have played an important role in teacher preparation program, especially in teaching practicum and supervision area. Regarding the advantages of blended learning, it is very promising that similar benefits would be seen if integrating blended learning with traditional teacher supervision as well. Examples of studies in this area are presented below:

Kopcha (2011) designed the supervision model called eSupervision which used a variety of technology, including online discussion forums, guided observations, video reflection, and a lesson plan performance support system, to support the pre-service teachers' practicum. The finding suggested that the eSupervision group was scored higher regarding assessments. They received fewer site observations by their supervisor, but had greater access to supervisory

experiences mediated through technology. The study also yielded that the eSupervision group had higher score on teacher efficacy than non-eSupervision group due to more access to feedback via technology.

Goktalay (2015) examined the use of Facebook group as an informal learning tool for cooperating teachers and university supervisors to give student teachers feedback regarding their teaching practice. The study revealed these following findings: 1) student teachers preferred to use Facebook group as a tool to seek for feedback regarding their lesson plans and classroom activities; 2) they used Facebook to communicate and share information with friends; 3) they agreed that Facebook is the convenient tool that enhancing their communication and discussion with cooperating teachers and university supervisors; and 4) they received prompt feedback from the university supervisors through Facebook group.

According to Caner (2010), providing an online platform where supervisor can give online feedback and reflect on student teachers' weekly lesson plans and teaching performance contributed to their professional development. Rutherford (2010) explored the Facebook discussion posts of teachers within the Facebook group entitled *Ontario teachers- resource and idea sharing group* to determine whether the discussion taken place within this group could lead to profession development. The findings revealed that teachers' posts focused on exchanging idea and resourced about how to overcome classroom challenges and to enhance their teaching practice. This collaborative and dynamic nature of the discussion gave teachers opportunities to assume both student and teacher role in learning to teach.

Single and Muller (2001) also stated that the integration of technology tools, such as blogs, e-mails or Facebook with traditional supervision supported relationships among peers and with supervisor. Similarly to Yoon (2008) who used online chat room to promote communication between supervisor and student teachers. The results revealed that they could communicate more easily through Internet regardless the restriction of time and space.

In brief, the studies reviewed earlier indicates that integrating online technologies with traditional teacher supervision process helps maximizing social

interaction and promote relationships of supervisor and student teachers which lead to their professional development.

5.7 Blended learning and reflective practice

The blended learning environment is also used to enhance pre-service teachers' reflective practice. Technologies provide options for facilitating and reflecting on instruction from various aspects. The most prominent technology used to foster pre-service teachers' reflection is video. Several studies have conducted to validate this claim.

Eröz-Tuğa (2013) required 11 pre-service English language teachers to participate in the reflective practice. They were videotaped twice throughout the semester before their final teaching. After each recording, they had feedback sessions which involved watching the recorded videos with the university supervisor and their training partner. During the session, pre-service teachers commented on their own teaching and also received feedback from the university supervisor and their training partner. The finding reveals that there was obvious increase in their insight regarding their own strengths and weaknesses in the classroom as well as their ability to constructively criticize their partners' performance.

Rhine and Bryant (2007) conducted a study to exploit digital video and the internet as tools for developing reflective practice. Their work identified that these tools provide a medium for communication and dialogue. Digital video can add a new dimension to use videotape for reflection in teacher education as it possible to edit an hour of teaching performance into short segments for discussions. Furthermore, they found that posting the segments online encouraged discussion and dialogue between the participants which resulted in the enhanced reflective outcomes.

Dymond and Bentz (2006) also included the use of digital video review through the internet using streaming video techniques with student teachers. They created a digital video library of teaching videos where teachers worked with students with mild disabilities. As student teachers may have unequal experiences in

their training to work with students with disabilities, streaming videos help bridging the gap by giving all student teachers the ability to view and discuss teaching episodes concerning teaching and working with disabled students.

Not only the ability of reflective practice that is increased after the use of video, other abilities related to cognitive process is improved as well. Beck, King, and Marshall (2002) examined the effectiveness of video cases on student teachers' ability to identify, interpret, and analyze the indications of effective teaching. The participants were randomly divided into two groups: the control group and the technology-supported observation group. Both group attended the same practicum classes; however, the experiment group was required to attend separate sections of the lab which required them to construct their own video case and engaged in e-mail discussion. The finding confirmed that student teachers in treatment group outperformed their peers in control group regarding their ability to identify, interpret, and analyze evidence of effective teaching.

Through video, student teachers gained new opportunities to investigate their practice, to gain better understanding of what was happening in their classroom, to identify what was important in their teaching practice. Additionally, it allowed them to make connections between their decisions and actions in the context of teaching and learning (Sherin, 2000). While live observation offered real time reflective capacity, recording and reviewing allowed the student teachers to view their teaching at their own pace as well as allowed for replay to deconstruct practices (Harford & MacRuairc, 2008)

In brief, the use of video-enhanced reflection helps facilitating student teachers' reflection and expanding their teaching experience repertoire.

5.8 Summary

The studies of blended learning stress benefits of combining face-to-face teaching and learning with online environment. For example, it promotes pedagogy richness, makes knowledge more accessible, increases cost effectiveness, and

enhances social interaction. However, several researchers also find that it is a timeconsuming approach, especially if the users are technological inexperienced.

When combining blended learning tools, such as Facebook and video clips with supervision concept and with reflective practice concept, studies suggest positive implications.

6. Conclusion

The literature in this chapter serves as fundamental principles for developing the blended learning supervision model and its process as well the research instruments for enhancing English-majored student teachers in a Thai public university.

First, the synthesis of sociocultural theory and teacher supervision indicates that teacher supervision is a collaborative process where supervisor uses dialogic discourse and feedback strategies to help student teachers regulate their own teaching performance. Supervisor assumes different roles and performs different responsibilities to facilitate student teachers' thinking throughout the three supervision stages, especially the post-observation stage. The post observation stage is considered a golden chance for teacher-supervisor interaction to occur.

Second, the literature related to teaching practice suggests that student teachers can also learn to redefine their practice through self-observation and reflective journaling. The synthesis of Smyth (1989) and Gibbs (1988) model indicates five stages of the reflective practice and journaling process, including 1) focusing, 2) questioning, 3) confronting, 4) supporting belief, and 5) promising change used in this study. Then, reflective journals are assessed in order to investigate student teachers' improvement in terms of reflective ability based on level of reflection synthesized from Ward and McCotter (2004a), Larrivee (2008a), and Hatton and Smith (1995b). Thus, there are four levels of reflection, naming 1) non-reflection, 2) descriptive reflection, 3) pedagogical reflection, and 4) critical reflection.

Third, the literature related to teaching performance suggests it is measurable and observable teaching behaviors. According to the synthesis of Chinokul (2005),

T. Wright (2005), and Chappuis et al. (2012), teaching performance is classified into four domains, naming 1) lesson planning domain, 2) lesson presentation domain, 3) lesson assessment domain, and 4) professional development domain. The first three domains could be observed and measured during classroom observation while the last domain could be evident from assessing student teachers' reflective journals.

Fourth, blended learning approach proves to be a very useful approach in promoting social interaction, students' diversity, and pedagogical richness. Thus, incorporating face-to-face supervision with online supervision helps promoting expanding interaction between student teachers and supervisor. From this point forward, they can engage in dialogic discourse and in scaffolding beyond time and place limitation. Furthermore, incorporating technology, such as digital video with reflective practice process helps student teachers see what actually happened in their classes and gain better understanding about their teaching practice.

Lastly, with the blend between face-to-face and online supervision along with the implement of reflective practice could help enhancing student teachers' teaching ability and help them regulating their teaching performance.

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Chapter III

Research Methodology

In this chapter, the outline of this chapter was presented in two phases as follows:

Phase1: Process prior to main study

The prior main study phase gave detailed information concerning the development process of blended learning supervision model and research instruments. Their construction, validation, and revision were reported.

Phase2: Main study

Lastly, the main study phase focused on the implication of the model and research instruments with the main participant group. The information of participants, setting, and implication process, and data analysis were described.

Before describing further about information in each phase, the research design used to frame the process of this study was explained. This study was outlined using research and development approach (R&D) proposed by de Villers (2005). The aim of R&D approach was to propose practical solution to improve current situations. The idea resonated with the objective of this study which aimed at proposing an alternative supervision model to improve the reflective ability and teaching performance of English-majored student teachers in a Thai public university. The following figure presented the R&D research design used in this study.

Figure 2: Research and development design to develop blended learning supervision model to enhance English-majored student teachers' reflective ability and teaching performance

1. Problem Analysis Stage

Round1: Conducted with a group of student teachers during the 1st semester practicum (May-Aug, 2010)

- Explore the process and activities of teacher supervision.

Round2: Conducted with a group of student teachers during the 2nd semester practicum (Dec, 20102-March, 2011)

- Explore how reflective practice should be implemented in supervision process.

<u>Round3</u> Conducted with 35 student teachers at Aug, 2011.

- Explore opinions of the population group.

Results from the problem analysis

2. Solution Design Stage

1. Review literature related to sociocultural theory and blended learning approach.

2. Select online tools.

3.1 Develop blended learning supervision model.

3.2 Develop three research instruments.

4. Validate the model and research instruments.

Results from the solution design

Pilot Study Stage

Pilot the model and research instruments with a group of student teachers during the 1st semester practicum (May-Aug, 2011).

Results from the pilot study

4. Implementation stage

↓ Yes

Implement the model and research instruments with 4 student teachers during the 2nd semester practicum (Dec-March, 2011)

Collect, analyze, and report the data about: 1) STs' reflective ability, 2) STs' teaching performance, and 3) opinions of ST and supervisor.

Refined blended learning supervision model to enhance English-majored student teachers 'reflective ability and teaching performance.

According to the figure...., this study was divided into four stages, naming problem analysis, solution design, pilot study, and implementation. The first three stages were conducted to develop, validate, and revise the blended learning supervision model and research instruments. At the implementation stage, the model and research instruments were used with the main study group of supervision to examine whether the model was able to enhance their reflective ability and teaching performance.

Phase1: Process prior to the main study

In this section, process and findings of three research stages including problem analysis, solution design, and pilot study were elaborated.

1.1 Problem analysis stage

The aim of this stage was to identify the gaps situated in the process of teacher supervision offered by the faculty of education in a Thai public university. The researcher conducted three rounds of problem analysis with three different groups of student teachers, and each round served different goals.

1.1.1 Problem analysis round1

It was conducted with three English-majored student teachers involving in the 1st semester teaching practicum of the academic year 2010 (May- August, 2010) at a Thai public school. The purpose was to explore the normal process and activities of teacher supervision practiced in teaching practicum context. The researcher followed a university supervisor to observe how the three student teachers were supervised for one semester.

There were three results emerged from the researcher's observation. The first result suggested that the process of teacher supervision practiced by the university supervisor consisted of three stages, including the pre-observation, observation, and post-observation stage. This finding aligned with teacher supervision literature which also indicated similar supervision stages.

The second result regarding the supervision activities indicated that most of them were conducted in a face-to-face environment. They were also delivered with an aim of improving student teachers' teaching practice, i.e. commenting on lesson plans and giving feedbacks on their teaching practice.

The third finding also suggested little evidence of self-reflective practice of student teachers. Post-observation stage was the only chance that student teachers reflected on their teaching practice through dialogue with the supervisor; however, the reflection was brief due to the time constraint.

1.1.2 Problem analysis round2

The second round problem analysis was conducted with another group of English-majored student teachers during the second teaching practicum of the academic year 2010 (Dec, 2010- March, 2011). The researcher followed the same university supervisor to observe their classes situated at another Thai public school. Since the previous problem analysis suggested that student teachers had minimal chance of practicing reflection, the purpose of the second problem analysis was to explore how reflective practice be implemented in teacher supervision.

After one-semester-longed trial, the researcher found that reflective journal writing was an activity that gave student teachers opportunity to practice their reflective ability. Their reflections were still superficial due to their inexperience; however, the researcher found two methods that helped scaffolding the journaling process, including 1) providing them with a set of guiding questions, and 2) having them watched their teaching video clips recorded during the observations. These findings were resonated with the suggestion proposed by Dunlap (2006) that inexperienced reflective practitioner needed guidance to walk them through the reflective practice process.

1.1.3 Problem analysis round3 (Appendix A)

The last round of problem analysis was conducted with 35 English-majored student teachers of the academic year 2011 who were the population group of this study. There were 28 female and 7 male student teachers with the age range of 22-24 years old.

The purpose of this round was to explore their opinions towards four topics, including 1) computing and ICT skills; 2) reflective journal writing; 3) teacher

supervision; and 4) prospect blended learning supervision. A 5-point Likert scale questionnaire constructed by the researcher was delivered to the population group during their last meeting at the faculty on August, 2011. After receiving all questionnaires back, the researcher analyzed the data and found these following results.

First, the population group possessed very good computing and ICT skill, especially the skill in these following areas: 1) using chatting platforms (\bar{x} =3.94), 2) uploading and downloading files on the Internet (\bar{x} =3.89), 3) using social networking sites (\bar{x} =3.89), and 4) using e-mail (\bar{x} =3.86).

Second, the results concerning opinion of the population group towards reflective journal writing yielded the positive opinions towards reflective journal writing. The population group agreed that reflective journaling could enhance their reflective ability (\bar{x} =3.60), allow them to acknowledge the weaknesses and strengths about their teaching (\bar{x} =3.60), and finally lead to improvement in their teaching performance (\bar{x} =3.54). Furthermore, they also agreed that reflective journaling would be less complicated if guiding questions and examples were provided (\bar{x} =3.74, \bar{x} =3.63).

Third, the results regarding their opinions on teacher supervision indicated their indifferent opinion towards the supervision process. Although they agreed that the university supervisors completed classroom observations regarding the requirement of the faculty ($\bar{x}=3.54$); however, they had indifferent opinions whether the post-conference was conducted in a friendly atmosphere ($\bar{x}=3.43$), and the immediate feedback was useful as well as always given ($\bar{x}=3.37$, $\bar{x}=3.46$). Thus, they agreed to usually seek advice from friends and other resources rather than consulting with the university supervisors ($\bar{x}=3.57$).

Lastly, they had positive opinions if blended learning supervision would be developed. They agreed that if blended learning supervision was developed, it would help promoting communication ($\bar{x} = 3.77$) and enhancing relationship ($\bar{x} = 3.69$) between the university supervisors and student teachers. Furthermore, the

technologies used would help providing evidence for their reflection (\bar{x} =3.71) which led to improvement in their teaching performance (\bar{x} =3.69).

1.1.4 Summary

Findings from the three rounds of problem analysis stage indicated that teacher supervision process would help student teachers reaching professional development either in performance or cognition if these following gaps were bridged:

1) inadequate communication channels to support interaction between supervisor and student teacher beyond the face-to-face supervision; and 2) insufficient opportunity for reflection. Since the finding from the third problem analysis round suggested that the population group possessed good ICT skills, online technologies, such as e-mail, social networking sites, LMS, chatting platforms, and etc. could be employed to expand their opportunity for interaction. Reflective journal and technologies, such as video clips would help facilitating student teachers' thinking and writing process.

In brief, the findings from problem analysis stages served as input for designing blended learning supervision model and research instruments to help improving the teacher supervision process.

1.2 Solution design stage

The stage focused on designing blended learning supervision model and developing research instruments to answer the three research questions regarding 1) student teachers' reflective ability, 2) their teaching performance, and 3) opinions of student teachers and supervisor about the model. Thus, the process of construction and validation of both the model and research tools was explained in this section.

1.2.1 Development of blended learning supervision model

When considering the information elicited from the problem analysis stage, two distinctive aspects which were aspect of technology and aspect of human interaction needed to be study further. Thus, the researcher reviewed and synthesized literature regarding blended learning approach and sociocultural theory,

explored several online tools, and developed the process and components of blended learning supervision model.

The model was submitted to model to three experts to validate. All three experts had experience in English instruction and supervision area for more than five years. One had expertise and interest in teacher professional development innovation.

The IOC form consisted of four domains which were 1) blended learning supervision rationales; 2) blended learning supervision process and components; 3) blended learning supervision outcomes; and 4) online practicum group. Each IOC domain was presented on a three rating scale ranged from -1 to 1. The items with the score higher than or equal to 0.5 (IOC ≥ 0.50) were considered appropriate; those items with the score higher than or equal to 0.5 (IOC ≥ 0.50) were considered appropriate; those with the scores less than 0.5 needed to be revised according to the suggestions of the experts (Kanjanawasee, 2005). The framework received the score ranged from 0.60-1.00 in each IOC domain which could be interpreted that all was appropriate and could be implemented later on. However, the experts provided useful comments to help with the instrument revision; for example, one expert noted that there should be more clarification on the role of supervisor and student teachers and the example of language used in each supervision step.

The following figure showed how the concept of sociocultural theory and blended learning approach were synthesized (see **Figure 3** and **Figure 4**). The rationales of blended learning supervision model were presented in **Figure 5**.

Figure 3: Analysis and synthesis of sociocultural theory concept

Sociocultural theory

Learning is not confined to the straightforward acquisition of skills or knowledge that aims at producing passive learners but rather a developmental social process that enable learners to become active meaning-makers and problem solvers (Johnson, 2009; Williams & Burden, 1997).

Effective learning lies in the nature of social interactions between two or more people with different level of skills and knowledge (J. Wertsch, 1985).

Learning is acquired internally when learners are able to transform what was once socially constructed to become appropriate for their individual use in the future (Vygotsky, 1978)

Learning is an interactive process mediated by others, by self through private speech, and by artifacts such as tasks and technology (Johnson, 2009; Lantolf, 2000).

Scaffolding is utilized at its best if the more experienced peers adjust the assistance they provide to fit the novices' level of performance (Berk, 2000)

Scaffolding is an instructional strategy where by a more competent peer gives aid to the novices as necessary to help them take risks and reach higher than would be possible by the novices' efforts alone and reduce this aid as it becomes unnecessary (Donato, 1994b).

Principles of sociocultural theory for supervision

1. Supervision is a social activity situated in real school and classroom context which aims at encouraging student teachers to be able to construct/reconstruct their own teaching principles and to solve classroom problems.

2. Within supervision, interaction with self, with others, and with activities or tools promotes student teachers' internalization.

3. During supervision, student teachers are able gain understanding about their own teaching, achieve solutions to their problems, and reach higher level of thinking through collaborative interaction with more knowledgeable person.

Guidance appropriated to each student teacher's current level of performance given by the expert helps facilitating their classroom teaching. The support can be lessened if student teachers have developed expertise to perform independently

Figure 4: Analysis and synthesis of blended learning approach

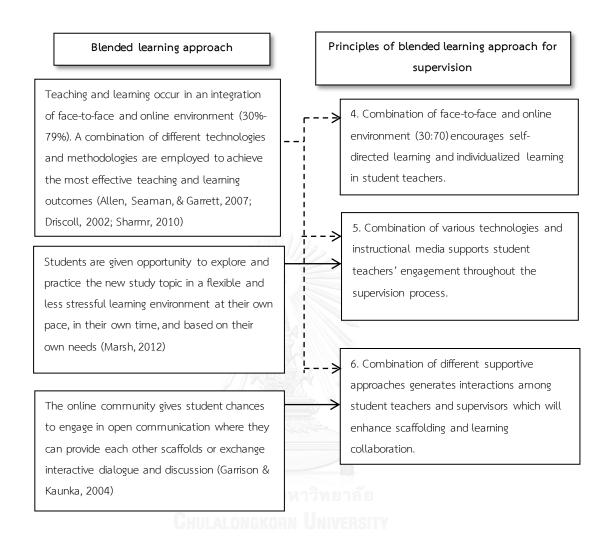
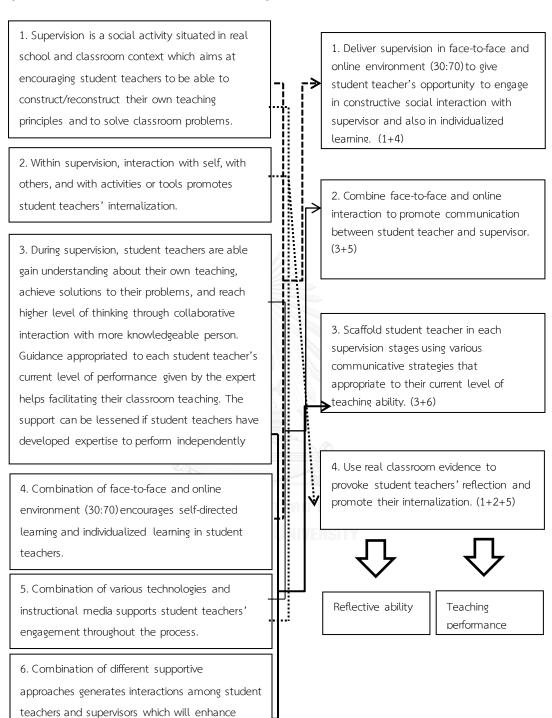


Figure 5: Rationales of blended learning supervision model

scaffolding and learning collaboration.



1.2.2 Development of research instruments

To answer research questions, three research instruments were developed. First, reflective ability scoring rubrics and reflective journals were used to collect data related to reflective ability. Second, classroom observation form was used to collect teaching performance data. Lastly, open-ended interview questions were used to collect data related to student teachers' and supervisor's opinions. The description of how each research instrument was constructed and validated was provided below.

1.2.2.1 Reflective journal (See Appendix B)

Student teachers used reflective journal to keep record of their self-reflections. At the end of each observation, they were asked to write a reflection responded to their teaching in Thai. Six guiding questions synthesized from Gibbs (1988) and Smyth (1989) were provided to facilitate their thinking process. The six questions were:

- 1) What is the description of your classroom challenge?
- 2) Why things happened this way?
- 3) How did you solve the challenge?
- 4) How effective was your decision?
- 5) Why did you decide to solve the challenge that way?
- 6) How would you do thing differently if the same challenge happens again?

1.2.2.2 Reflective ability scoring rubrics (see Appendix C)

A set of analytical rubrics synthesized from Larrivee (2008a), Ward and McCotter (2004a), and Hatton and Smith (1995a) were developed to assess student teachers' journals. Five reflection domains, including focus, questioning, confronting, supporting belief, and promising change were extracted from the guiding questions mentioned earlier. Each domain was rated based on the 4-point rating scale, naming 1 (non-reflection) to 4 (critical reflection). At the end, the total score was used to classify student teachers' reflective ability into 4 levels which were 1) non-reflection, 2) descriptive reflection, 3) pedagogical reflection, and 4) critical reflection.

The guiding questions for reflective journal and reflective ability scoring rubrics were submitted to three experts for validation. All three experts had experience in English instruction for more than five years. The evaluation form of Item-Objective Congruence Index (IOC) was used to ensure the quality of the instruments on theses following domains: 1) relevancy of the content, 2) the clarity of language, 3) the synthesis of idea, and 4) the practicality of the instrument. Each IOC domain was presented on a three-rating scale ranged from -1 to 1. The item with the score higher than or equal to 0.5 (IOC \geq 0.50) were considered appropriate; those with the scores less than 0.5 needed to be revised according to the suggestions of the experts (Kanjanawasee, 2005). Both instruments received the score ranged from 0.60-1.00 in each IOC domain which meant that all was appropriate and could be implemented later.

All experts provided helpful suggestions based on the clarity of the language, they suggested in each level of reflection, example should be provided. This was because the higher levels of reflection, especially the critical level which entailed very abstract quality.

1.2.2.3 Classroom observation form (see Appendix D)

A set of analytical scoring rubrics was developed based on the classroom observation form of the university and the study of Richards (2011a) and Chappuis et al. (2012) in order to assess student teachers' teaching performance. The form was divided into two main parts. The first part was the scoring rubrics part and the other was the open-ended part.

Firstly, the scoring rubrics part, student teachers' teaching performance was assessed based on 4-scoring scale ranged from 0 (not visible) to 3 (exceed expectations). Overall, their teaching performance was divided into 3 teaching stages: planning, presentation, and lesson evaluation, and each stage consisted of relevant observation domains. Secondly, the open-ended part was provided for the researcher to record any evidence found or any reflection emerged during the observation.

The researcher sent the classroom observation form to three experts for validation purpose. The IOC form was used to ensure the quality of the instrument on four domains: 1) the relevancy of the content, 2) the clarity of language, 3) the synthesis of the idea, and 4) the practicality of the instrument. Each IOC domain was presented on a three-rating scale ranged from -1 to 1. The item with the score higher than or equal to 0.5 (IOC ≥ 0.50) were considered appropriate; those with the scores less than 0.5 needed to be revised according to the suggestions of the experts (Kanjanawasee, 2005).

The observation form received the score ranged from 0.6-1.00 in each IOC domain which indicated that all was appropriate and could be implemented. The suggestions of the experts were given based on the clarity of language, the relevancy of the content, and the practicality of the instrument.

In terms of language clarity, experts suggested that the description of each observation domain should be revised. The terms 'poorly written', 'not well written', or 'well-crafted' should not be used since they were vague and very subjective.

In terms of content relevancy, they mentioned using the term 'gained knowledge' instead of 'background knowledge' since the prior term was less ambiguous.

In terms of instrument practicality, they suggested that the descriptions of the scale 2 (meet expectation) and 3 (exceed expectation) in some observation domains were very close. Revision was required.

1.2.2.4 Open-ended questions for semi-structured interview

Two sets of interview questions were constructed to investigate student teachers' and supervisor's opinions towards blended learning supervision model. All student teachers were interviewed individually in Thai using the question:

- 1) How do you feel towards participating in the blended learning supervision?
- 2) How the process and components of blended learning supervision benefited your teaching?

The interview with supervisor was conducted online after all individual interviews with student teachers completed. The researcher sent the interview

questions via e-mail and received the reply in English. The two open-ended questions constructed were:

- 1) How do you feel towards the components of blended learning supervision model?
- 2) As a supervisor, how do you feel towards the process of blended learning supervision model?

These two sets of interview questions were sent to three experts for validation purpose. The IOC form was used to ensure the quality of these three questions based on two domains: 1) the clarity of language, and 2) the synthesis of idea. All three questions received score of 1.00 in each domain which indicated appropriateness to be implemented according to Kanjanawasee (2005).

1.2.3 Summary

In brief, the product from the solution design consisted of one model and three types of research instruments, including 1) reflective journal and reflective ability scoring rubrics, 2) classroom observation form, and 3) open-ended interview questions. These tools were tested for their effectiveness in the next stage.

1.3 Pilot study stage

The pilot study stage was conducted with a group of English-majored student teachers participating in the first semester teaching practicum of the academic year 2011 for one semester (May-August, 2011). The purpose of the pilot was to confirm the effectiveness of the blended learning supervision model and the three research instruments. The researcher followed these steps:

First, a month prior to the first official observation (29th May, 2011), the researcher contacted all four student teachers to schedule personal visits in order to give them time to adjust themselves with having video camera in class.

Second, at June 1^{st} , 2011, the researcher launched a Blackboard practicum group which served as an online space for student teachers and supervisor to

communicate, share feedback on teaching video clips, and submit reflective journals. All student teachers were added to the Blackboard group.

Third, during June 22nd to August 31st, 2011, the university supervisor scheduled date and time for official supervision visits. Each student teacher was observed four times. During each visit, each student teacher's class was video recorded then edited and shared to the Blackboard practicum group. After the observation, each student teacher spent about 10 minutes discussing about the class and getting feedback from the university supervisor. A couple of days later, everyone had to write a reflective journal responding teaching clips posted then submit their journals on Blackboard group for the researcher and the university supervisor to read.

Lastly, individual interview was conducted with each student teacher to explore their opinions about the blended learning supervision.

Findings from the pilot study stage

During this study, any ineffective tools were revised and repilotted until acceptable results were yielded. The following findings were found.

- 1. Facebook was used instead of Blackboard practicum group since it was accessible, user-friendly, and compatible to student teachers' life style.
- 2. The reflective ability scoring rubrics and classroom observation form were revised to be more specified and practical.
- 3. The findings from the interview suggested student teachers' positive attitude towards the blended learning supervision model. Student teachers agreed that comments from the university supervisor and the researcher along with their teaching clips helped them in shaping their plans and classroom teachings. After a few observations, they and their students were familiar with having the researcher in class recording their classes. Some said that they did not even become aware that they were being recorded. Last but not least, Facebook practicum group was applicable to their lifestyle: easy to access, to share idea and information, and to maintain communication with the supervisor and friends.

Summary

The revised blended learning supervision model and revised research instruments were employed in the next phase.

Phase2: Main study

This phase focused on implementing the blended learning supervision model and research instruments with the main study group in the implementation stage. Influence of the model towards reflective ability and teaching performance of the main study group was collected. The description of how the implementation stage was described below:

2.1 Context of the study

This study took place at a public coeducational school located in Bangkok. The school was initiated under the Ministry of Education to provide base education for secondary and upper secondary students (grade 7th to grade 12th). It was an affiliated practicum site for student teachers from the university to practice their teaching and learn about teachers' responsibilities. Most classrooms were large classes with 40-45 students. They were also considered very traditional with blackboard and a small amplifier installed in front of the class.

2.2 Participants

The group of participant of this study consisted of 3 female and 1 male student teachers with age ranged from 22-23 years old. They were randomly assigned to be supervisee of a university supervisor who agreed to participate in this study. All participants went to the same school for their teaching practicum; however, they were assigned to teach English to students at different levels. The following table summarized the information of each participant:

Table 8: Information of the four participants

Participants	Gender	Age	Major(s)	Semester	Level of	Number	Hours of
				of	students	of	teaching/
				previous	taught	English	week

				teaching		classes	
						taught	
Nate	М	23	advanced English	1	Grade 7	4	8
Gina	F	23	English & special	1	Grade 8	2	4
			education				
Fiona	F	22	English & counseling	1	Grade 9	2	4
			psychology and				
			guidance				
Stella	F	23	English & counseling	1	Grade 10	2	4
			psychology and				
			guidance				

^{**} The names used in this study are pseudonyms

Regarding the information presented, Nate who was a single-majored student teacher was required to teach 8 hours of English per week while others who were dual-majored students were required to teach 2 subjects; 4 for English and another 4 for their major of choice. All had previous teaching experience from the first semester teaching practicum.

2.3 University supervisor and researcher

Another group of people who played a role in this study was the university supervisor and the researcher. Regarding the university supervisor, she was working at the university and had experience in supervising student teachers for over ten years. In this study, she hosted a total of 16 classroom observations or 4 observations for each student teacher. Her prominent roles were to interact and scaffold student teachers as well as to observe and assess their teaching performance.

The researcher was considered one of the supervision team. Her main roles were to collect data and to facilitate supervisor and student teachers during the face-to-face and online supervision process if both needed help. It had to be clarified that the role of researcher did not affect any of student teachers' scores and grades. The only person who could assess their grades was the university supervisor.

2.4 Implementation timeframe (Dec 6th, 2011 – April 24th, 2012)

Usually teaching practicum lasts about 16-18 weeks; however, the length of time when this study was carried out was shorter than usual. The implementation lasted for 14 weeks because of the severed flooding occurred towards the end of 2011 which spread through the provinces of northern, northeastern, and central Thailand. Several schools in Bangkok, including the one which was the setting of this study decided to postpone the beginning of their second semester from to late October to early December, 2011 The omitted 4-5 weeks caused drastic change in the school plan; for example, the learning schedules were rearranged, the classroom period was shortened to 45 minutes, and teachers as well as students were asked to come to school on Saturday for compensated classes during the first two months. The participants' teaching schedule and the research timeframe were enforced by this adjustment. This stage was divided into three phases: preparation, data collection, and follow-up interview (see **Table 9**).

Table 9: Data Collection Timeframe

Data Collection Timeframe				
Phase	Date/Month/Year	Activities		
	6/12/11	Facebook practicum group was set up		
	9/12/11	Meeting with student teachers was hold.		
	18/12/11	Student teachers' teaching belief and prior practicum experience		
		was collected through Facebook practicum group.		
Phase I:				
Preparation	22/12/11	Pre-classroom observation#1 for Gina, Fiona, and Nate		
	27/12/11	Pre-classroom observation# 1 for Stella		
	4/01/12	Pre-classroom observation #2 for Gina and Fiona		
	5/01/12	Pre-classroom observation# 2 for Nate and Stella		
Phase II:	17/01/12	First official classroom observation for Stella and Gina		
Data collection	26/01/12	First official classroom observation for Fiona and Nate		

	31/01/12	Second official classroom observation for Stella and Gina		
	2/02/12	Second official classroom observation for Fiona and Nate		
	14/02/12	Third official classroom observation for Stella, Gina, Fiona, and Nate		
	28/02/12	Final observation for Stella and Gina		
	1/03/12	Final observation for Nate and Fiona		
	7/04/12	Individual interview with Stella		
Phase III:	14/04/12	Individual interview with Nate		
Follow up interview	19/04/12	Individual interview with Fiona		
	27/04/12	Individual interview with Gina		
	28/04/12	Individual interview with the university supervisor		

Each phase was described as follows:

2.4.1 Preparation phase

The preparation phase was operated a month prior to the data collection phase, as the name suggested, activities undertaken aimed to provide student teachers with idea of how the second semester practicum experience would be different from their previous ones. Each activity was described below:

2.4.1.1 Setting up of Facebook practicum group

The researcher created a Facebook practicum group as an online community space for student teachers, the supervisor, and the researcher to communicate. The privacy of the group was important; therefore, it was set as 'secret group' which allowed only current group members to see and search stories about the group on their News Feed as well as to post in the group. After the setup, the researcher sent message to each student teacher asking them to accept her as their Facebook friends so that she could add them into the group.

2.4.1.2 Arranging of a meeting with student teachers

This informal meeting was conducted at the faculty after the participants finished the practicum conference. During the meeting, the researcher informed all participants about objectives of this study, what would happen during this semester teaching practicum, what reflective journal was and how it was done; the researcher also asked for all to sign in the consent form before participating in this study. All participants were ensured that this study would not influence their grade, their information would be confidential and they were welcomed to drop off anytime.

2.4.1.3 Exploring student teachers' teaching belief and previous teaching background

It is believed that student teachers' current teaching experience was learned and shaped by participation both outwards with social activities with students, supervisors, and cooperating teachers as well as internal participation with self. Thus, the researcher attempted to elicit this information from all participants by posting an assignment on Facebook practicum group asking all participants to share their personal teaching and teaching experience during the first semester. This information was used as initial information to understand each participant's personal story.

2.4.1.4 Pre-classroom observation

To prepare student teachers and their classes for the official supervisor classroom observation, the researcher conducted two classroom observations with each student teacher. Before classroom observation, a letter of permission to collect data was sent to the school and to the head of foreign language department. During the observation, participants' classrooms were video recorded then edited and the 15-minute version was uploaded on the researcher's Youtube channel and shared to the practicum group. After each classroom observation, each student teacher was asked to write two reflective journals responding to the two classroom observations and submitted them to the practicum group. Examples of reflective journals were provided in the practicum group. The researcher was very active to explain and help each participant to practice reflective journaling individually. After each submission, the supervisor as well as researcher read their journals and gave comments as appropriate.

In summary, the data observed during the preparation phase provided answer for research question1: What the process and components of blended learning supervision model are.

2.4.2 Data collection phase

The purpose of this phase was to collect data to answer research question 2: to what extent does the blended learning supervision model enhance Englishmajored student teachers' reflective ability and teaching performance?

During the data collection phase, each student teacher was observed 4 times totally. These following steps were taken:

2.4.2.1 Scheduling for classroom observations

Each participant's classroom schedule was submitted through e-mail then a discussion between the supervisor and the researcher was hold to find mutual agreement on what class should be appointed. The agreed schedule turned out to be Tuesday classes for Gina and Stella and Thursday classes for Nate and Fiona. Later, the researcher uploaded the agreed observation schedule in the practicum group so that all participants were notified.

2.4.2.2. Official supervision process

The supervision process was divided into 3 stages as follows:

1. Pre-observation stage

This stage was carried out online. Student teachers were asked to submit the lesson plan that would be taught on the scheduled date one week prior. The supervisor interacted with student teachers via e-mail to discuss about their plans and sent back to them for revision. Student teachers were welcomed to contact the supervisor or the researcher via Facebook or e-mail if they needed more help.

2. Observation stage

The university supervisor and the researcher visited each student teacher's class as appointed. Each class was carried out in a real classroom context for 45 minutes. While observing, the university supervisor evaluated the class and the researcher video recorded the participants' performance.

3. Post-observation stage

This stage was divided into 2 parts; the face-to-face post-conference and the online self-reflection. Regarding the face-to-face post-conference, it was conducted immediately after each observation ended. Student teachers met with the supervisor for about 10 minutes to discuss about their performance. The supervisor provided comments and scaffolds; therefore, student teachers could improve their future teaching according to this scaffold.

The online self-reflection was managed by each student teacher since each was asked to write a reflective journal reflected on the teaching on that day. Student teachers had to watch their teaching clips posted on Facebook practicum group then wrote journals and uploaded the journals online for the supervisor and the researcher to read.

2.4.3 Follow-up interview phase

The purpose of the phase was to collect data to answer research question 3: what are the opinions of student teachers and supervisor towards the blended learning supervision mode. After the data collection, the researcher conducted individual interview with each student teacher as well as with the supervisor in order to elicit their personal opinions.

2.5 Data analysis

The data analysis for both quantitative and qualitative data was presented in this section. Each research question guided the data analysis needed to process as the below description shows:

<u>Research question1</u>: What are the components and process of blended learning supervision model?

This components and process of blended learning supervision model was extracted from the framework and rationales synthesized.

<u>Research question2:</u> To what extent does the blended learning supervision model enhance English-majored student teachers' reflective ability and teaching performance?

2.1 Reflective ability

Regarding the improvement of reflective ability, three of student teachers' journals were calculated using reflective ability scoring rubrics. The reason why the journals were limited to journal entry number 1, 3, and 4 because of the technical problem occurred during the video editing process of the second observation which left the writing process of second journal uncompleted.

The researcher analyzed all journals in Thai. Each journal entry held a total score of 20 points. The score received from each journal entry was interpreted as the following criterion suggested (Pramounsinchai, 2005)

- Below 7.49 = level1: non-reflection
- 7.50-12.49 = level2: descriptive reflection
- 12.5-17.49 = level3: pedagogical reflection;
- 17.5-20.00 = level4: critical reflection

To explain how the blended learning supervision model influenced student teachers' reflective ability development, content of their journal entries were analyzed using content analysis.

2.2 Teaching performance

The development in terms of teaching performance was calculated using classroom observation form. Again, the observations were limited to observation number 1, 3, and 4 due to the technical problem. Each observation had a total score of 48. The score received from the classroom observation form was interpreted according to the criterion below (Mahapoonyanont, 2013).

- Below 5.99 = Need improvement level
- 6.00-17.99 = Initial level

- 18-29.99 = Competent level
- 30-48 = Proficient level

In order to explain how the blended learning supervision model influenced their teaching performance, their teaching clips were watched and analyzed to elicit the change they had made and was triangulated with their reflective journal entries, the written feedback as well as the comments that supervisor made during the preand post-observation stage.

<u>Research question3</u>: What are the English-majored student teachers' and supervisor's opinions towards the blended learning supervision model?

Data received from the individual interviews were transcribed, coded, and analyzed using content analysis (Elo & Kyngas, 2008) in order to elicit their opinions.

2.6: Summary

This study was conducted using research and development approach. The participants of the study were a group of 4 English-majored student teachers who were participating in the second teaching practicum at a public coeducational school in Bangkok. The study implementation was conducted for 14 weeks. The participants went through the 3 stages of blended learning supervision process. Quantitative and qualitative data were collected through 3 research instruments, naming 1) reflective ability scoring rubric and reflective journal, 2) classroom observation form, and 3) open-ended interview questions The scores received from their the participants' journals and their observations calculated to determine their improvement. Qualitative data analyzed from reflective journals, supervisor's scaffolds, and teaching clips were employed to clarify how the blended learning supervision model influence participants' development in terms of reflective ability and teaching performance. The attitude of supervisor's and student teacher's towards the model was analyzed from interview data.

The next chapter will present about the findings found in this study.

Chapter IV

Research Findings

This chapter reports the findings of the main study according to the research questions mentioned in chapter one; therefore, it consists of four parts:

Part1: The findings on components and process of blended learning supervision model;

Part2: The effectiveness of blended learning supervision model on student teachers' reflective ability and their teaching performance;

Part3: The findings on student teachers' and supervisor's opinions towards the blended learning supervision model.

Part4: Summary of the findings

Part1: The findings on components and process of blended learning supervision model

In order to answer research questions: What are the components and process of blended learning supervision model? The researcher developed this model based on three sources of information: 1) literature review; 2) results from problem analysis stage; and 3) results from pilot study stage. Within this section, three findings, including 1) rationales of blended learning supervision model, 2) the model components, and 3) blended learning supervision process were reported.

1.1 Rationales of blended learning supervision model

By integrating the main concepts from sociocultural theory and the blended learning approach, four rationales for blended learning supervision model were extracted. Each rationale was described below:

1.1.1. Deliver supervision in face-to-face and online environment (30:70) to give student teacher's opportunity to engage in constructive social interaction with supervisor and to engage in individualized learning.

By enhancing face-to-face supervision with online opportunity, the proportion 30:70; face-to-face supervision 30% and online supervision 70% was proposed. It suggested that substantial proportion of the interactions between supervisor/student teachers or student teacher/self were mostly situated online while face-to-face meeting was conducted only twice a month for observation and conference for immediate feedback. Thus, the blended environment offered student teachers flexible opportunities to work dependently with supervisor in order to accomplish challenges that could not be done in isolation; furthermore, they could interdependently take control of their own learning process.

1.1.2. Combine face-to-face and online interactions to promote communication between student teachers and supervisor.

With the combination of face-to-face communication and synchronous/asynchronous tools, supervisor and student teachers were encouraged to engage in communication, to seek, and to offer help at any time and any place.

1.1.3. Scaffold student teachers in each supervision stages using various communicative strategies that appropriate to their current level of teaching ability

Various communication strategies were used by supervisor with a purpose to assist student teachers to develop higher level of cognition and better teaching performance. It student teachers were improved, supervisor could lessen the scaffold and let they perform autonomously.

1.1.4. Use real classroom evidence to provoke student teachers' reflection and promote their internalization.

Student teachers were encouraged to reflect on their teaching using their teaching clips as a trigger. Additionally, watching others' teaching clips over time could help them conceptualize, restructure, and reengage their teaching principles or practice.

1.2 Components of blended learning supervision model

The four rationales were analyzed in order to elicit necessary model components. Thus four components, including 1) environment, 2) agents, 3) supervision activities, and 4) technologies were extracted (see **Figure 6**). Each component was described further below.

1.2.1 Environment

This component was considered a background context for the whole supervision process. The environment of blended learning supervision model was divided into two parts; online and face-to-face. Regarding the findings from problem analysis stage, it suggested that student teachers needed opportunity to interact with the supervisor beyond the limitation of face-to-face environment. Thus, integrating online environment helped fulfilling their needs.

Additionally, both environments influenced how student teachers' teach. For example, the elements of face-to-face environment such social activities with the school stakeholders as well as the school's expectation shaped the focus of student teachers' teaching. Elements of the online environment such as social interaction with supervisor and friends as well as interaction with themselves served as thoughprovoking input that they used for improve their teaching.

1.2.2 Agents

There were two agents involved in the blended learning supervision model. The first agent was the university supervisor and the other was student teachers. Both agents played versatile roles in face-to-face and online supervision.

1.2.2.1 Supervisor

In face-to-face supervision, the roles of supervisor were quire formal since the supervisor served as the representative of the university. Thus, her roles included being observer, assessor, and teaching expert. However, she assumed more constructive and less evaluative roles such as being critical peer who helped student teachers brainstorming possible idea, giving suggestions, and asking questions to raise their awareness on their lesson plans, students, and teaching performance.

1.2.2.2 Student teachers

In blended learning supervision model, student teachers were not passive agent who followed the supervisor's direction obediently. During the face-to-face supervision, they assumed a dual roles being student teachers practicing teaching and being problem solver solving unexpected problems occurred in class. Both roles needed feedback for improving the quality of teaching and solutions. In online supervision, they were self-observer and reflective practitioner reflecting on their teachings as well be the decision maker deciding on which idea should be incorporated in their lesson plans.

1.2.3 Supervision activities

The main objective of supervision activities was to improve student teachers' teaching practice. The activities could be divided into three types, including 1) activities did by both supervisor and student teachers, 2) activities did by supervisor, and 3) activities did by student teachers.

First, the activities did by both student teachers and supervisor referred to their communications situated in the face-to-face and online supervision such as scaffolding, giving feedback, and negotiating ideas. They were done to support student teachers to achieve their teaching tasks.

Second, the activities performed by supervisor were classroom observation and teaching performance assessment. Through these activities, the supervisor collected and recorded essential data which would serve as scaffolding in put during the face-to-face conference.

Lastly, the activities performed by student teachers referred to reflective journaling that student teachers did online. When reflected, they had opportunity to make connections between the authentic every experience with theories and feedbacks received from the supervisor. Furthermore, they had a chance to internalize and propose new perspective and new ways of teaching.

1.2.4 Technologies

Social media, synchronous and asynchronous tools as well as video-sharing websites were incorporated to provide a platform of community of practice. Student

teachers could share their problems and concerns with their peer and their supervisor. Their social interactions were promoted.



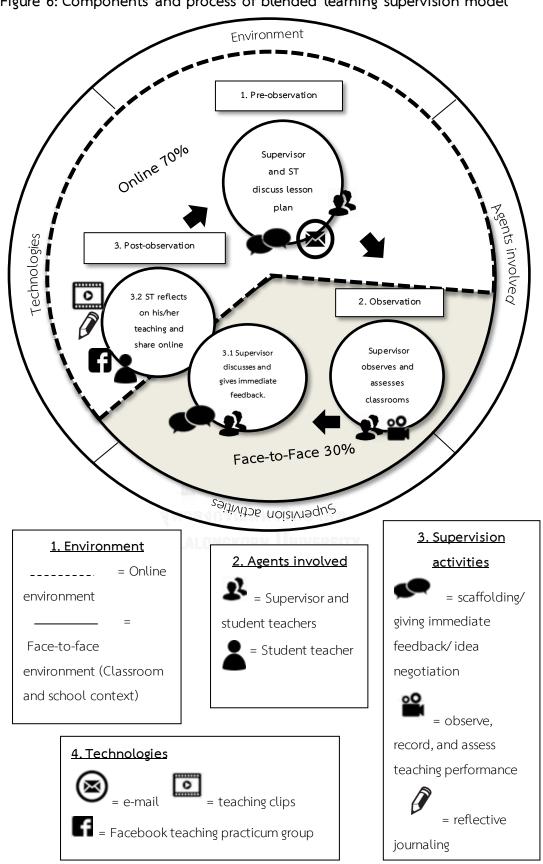


Figure 6: Components and process of blended learning supervision model

1.3 Blended learning supervision process

1.3.1 Pre-observation stage (Online)

Student teachers and supervisor work collaboratively to generate the goal of observation through lesson planning. One week prior to each observation, student teachers planned their lessons then e-mailed them to the supervisor for feedback. Apart from lesson plans, they were requested to attach worksheets and examples of teaching materials planned to use within the mail as well. Supervisor provided different types of scaffold as food for thought for student teachers to ponder and revise their plans. The language used as communication medium included both English and Thai. English was used by the supervisor for commenting on student teachers' lesson plans while student teachers usually used Thai language for negotiating ideas. Examples of activities done during this stage were shown in Figure 7, Figure 8, and Figure 9

Gmail -Move to Inbox More ▼ @ 2/22/12 🏠 🔸 COMPOSE Inbox (80) > English ▼ Translate message Turn off for Thai x Starred หนูทำให้มันเข้าใจง่ายที่สุดค่ะ เพราะนักเรียนไม่เคยเรียนเรื่องออกเสียงอะไรประเภทนี้มาก่อน Important หนูคิดว่าถ้าใส่กิจกรรมมากกว่านี้ กลัวว่า 45นาทีจะไม่ทัน เพราะเป็นคาบหลังพักเที่ยง กว่านักเรียนจะพร้อมก็กินเวลาไปพอสมควร แต่ถ้าอยากให้หนูเพิ่มอะไรบอกได้เลยนะคะ หนูว่ามันก็แอบเรียบง่าย ระหว่างนี้หนูก็คิดกิจกรรมเพิ่มอยู่เหมือนกันค่ะ 2 Attachments

Figure 7: Example of student teacher's e-mail

Figure 8: Example of supervisor's e-mail

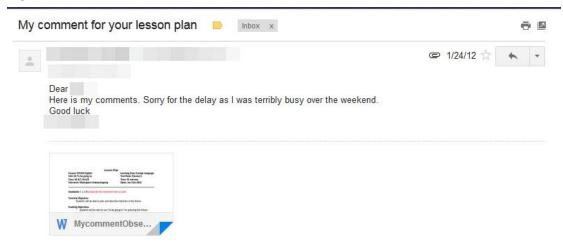


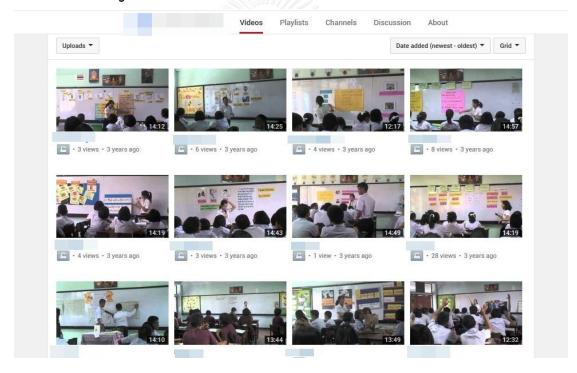
Figure 9: Example of online interaction to negotiate lesson planning idea



1.3.2 Observation stage (Face-to-face)

Each observation lasted about 45 minutes. Before each class began, student teachers prepared a copy of lesson plan/ worksheet for the supervisor. While they were teaching, supervisor sat at the back of the class to observe student teachers' teachings, recorded written and digital evidence, and assessed their teaching performance. Example of video clips after recorded and uploaded on Youtube was presented below:

Figure 10: Example of student teachers' teaching clips recorded during the observation stage



1.3.3 Post-observation stage (Face-to-face and online)

This stage was divided into two parts: the post-conference part conducted directly after the observation and the self-reflection conducted online. Regarding the post-conference part, supervisor and student teachers discussed about the completed teaching in a face-to-face and one-on-one meeting for 10 minutes. Supervisor used the written evidence recorded to discuss about their teaching strengths and areas that needed improvement. This process served as an initial

reflection trigger for student teachers to ponder before doing self-reflection in the next part.

The second part was the self-reflection which was conducted a few days after the post-conference. Student teachers wrote reflective journal based on their teaching clips watched posted on Facebook practicum group then shared their journals on the group for friends and supervisor to read. The main online tool used in this part was Facebook practicum group which was developed as all-in-one community where student teachers interacted with supervisor, shared their reflection, and traced their teaching video clips. Facebook was considered a very practical tool since it was used by every student teacher. They were familiar with the features provided. The most exploited features were shown in the following picture.

Teaching practicum 2/2011 ♠ Notifications ... Joined * Secret Group Discussion Members Events Photos Files Q MEMBERS 7 Members rite Post Ask Question ⊕ Add File Add Photo / Video Add information about your group. Message - Invite by Email RECENT ACTIVITY Edit อีเมลล์ติดต่ออาจารย์และพี่เอตามนี้เลยนะคะ created a doc. ▼ See More March 22, 2012 CREATE NEW GROUPS ในการสอนครั้งที่ 4 ซึ่งถือเป็นครั้งสุดท้ายของการนิเทศก์สอน ฟ่งสอนเรื่อง Infinitives ซึ่งปัญหาในการสอนเรื่องนี้เริ่มเห็นมาตั้งแต่ต้นคาบ คือ กว่าจะได้เริ่มเรียน Groups make it easier than ever to share with friends. นั้นก็เลยเวลาเรีย[้]นไปประมาณ 10-15 นาทีแล้ว ทำให้ฟังเองก็รู้สึกเหงือตก และใจ family and teammates. สั่นอยู่เหมือนกันว่าจะสอนไม่ทัน เพราะรู้ตัวเองดีว่ากิจกรรมในวันนี้ค่อนข้างเยอะ และ ยิบย่อย ดังนั้นหากทำไม่ทัน นั่นคือเ.. See More RECENT GROUP PHOTOS See All Like Comment 4 o?fbid=10200456790608112&set=gm.481007941900566&type=3

Figure 11: FB practicum group main feature

Regarding the picture presented above, student teacher could do use these features to:

- 1. <u>Write post</u>: Student teachers/supervisor were able to post their thoughts by typing in the white space provided then click 'post' button;
- 2. <u>Add file</u>: Student teachers/supervisor were able to shared Word document or PDF file by clicking this button;
- 3. <u>Message</u>: Student teachers/ supervisor sent personal message to all/ individual member in the group using this feature;
- 4. <u>Comment:</u> Student teachers/ supervisor made comment on others' post using this button.

Within the post-observation stage, the Facebook practicum group served as an archive of video teaching clips and journals where every student teacher could refer to when they wanted to watch their teaching or their friends' again. Additionally, the chatting platform could be a channel for scaffolding purpose in case that student teachers needed more feedback on their teaching (see **Figure 12** to **Figure 14**)

Figure 12: Examples of teaching clips shared on the FB practicum group



Figure 13: Example of student teacher's journal and supervisor's comment on the FB practicum group



Figure 14: Example of a dialogue between a student teacher and supervisor on her teaching practice.



In conclusion, to answer research question number 1: What are the components and process of blended learning supervision mode? The findings indicated that this model consisted of 4 rationales, 4 model components, and 3 supervision stages. The rationales for the development of this model were drawn from sociocultural theory and blended learning approach. The proportion of face-to-face and online supervision was 30:70. It suggested that most of interactions happened online. However, face-to-face supervision was still important since it was the opportunity for supervisor to experience authentic context where student

teachers were encountering. Additionally, it also allowed time for both university supervisor and the cooperating teachers to meet and interact with student teachers lived.

Part2: The effectiveness of blended learning supervision model on student teachers' reflective ability and teaching performance

To answer research question 2, to what extent does the blended learning supervision enhance the student teachers' reflective ability and teaching performance, the researcher divided the report into 3 parts.

- 1. The description of each student teacher's language learning and teaching background was provided for readers to have full comprehension of their language learning and teaching background that shaped and molded each student teacher to think, act, belief, and teach as they did in this study.
- 2. The report of findings on the influence of blended learning supervision model on student teachers' reflective ability. The quantitative data analyzed from reflective ability scoring rubrics gave clear picture of how each student teacher's reflective ability developed while the qualitative data analyzed from reflective journals clarified how this model assisted student teachers' reflective ability development.
- 3. The report of findings on the influence of blended learning supervision model on student teachers' teaching performance. The quantitative data analyzed from teaching observation assessment identified the each student teacher's development while the qualitative data obtained from supervisor's scaffold given at the pre and post-observation stages as well as the interpretation of student teachers' teaching clips were analyzed to clarify how blended learning supervision model promoted their teaching performance.

2.1 Description of student teachers' language learning and teaching background

Participant1: Stella

Stella was a female participant in her early twenties and was a current fifthyear English and counseling psychology and guidance majored student teacher in Faculty of Education. Stella had spent a total of 12 years as an English language learner before entering the university that she was studying. Her experience with English language learning began when she went to a private primary school where she created a positive memory of being an English language learner. The most influential agent that motivated Stella to learn the language was her teacher whom was described as a 'lively and adorable woman'. Because of her liveliness and patience Stella developed positive attitude to English language learning. However, another six years in the secondary school was a different experience since she moved to a new school. Within that public school, Stella exposed to new classroom environment, less engaged teaching style, and more complicated learning content; therefore, she was not impressed by the way English was taught during this period of life.

Speaking of English teaching and learning belief, Stella asserted that everyone could be mastered the language through a regular practice and constant expose to activities that requires using English. Practice is the heart to perfection.

She used a metaphor of 'golf player' to represent English language learners since they both required deliberated practice to master the skills. Her belief about English language teaching was aligned with the language learning one. The learning process was comparable to 'soldier training' in which the 'commander-in-chief' was the teacher whose mission was to train students diligently until they were able to apply the knowledge in real life. She mentioned:

Interview Excerpt1: To teach English, practicing promotes students' expertise

"ส่วนตัวแล้วคิดว่าการที่จะสอนวิชาที่ต้องอาศัยทักษะทางภาษาอย่างเช่นวิชาภาษาอังกฤษนี้ จำเป็นอย่าง มากที่ต้อง<u>ฝึกฝน</u>อย่างสม่ำเสมอ อีกทั้งเชื่อมโยงการฝึกฝนกับสถานการณ์ในปัจจุบันเพื่อให้เกิดการเรียนรู้ <u>ซ้ำ</u> <u>ไปซ้ำม</u>าจนเกิดเป็นค<u>วามเคยชิน</u>และสามารถนำไปใช้ได้ในชีวิตจริง"

"Personally, I believe that English language teaching requires <u>regular practice</u>; moreover, the practice process needs to be situated in the authentic context. The <u>continual practice</u>, at the end, would lead to <u>expertise</u> that is applicable in real life"

-Excerpt from Stella's comment in FB practicum group (7/03/12)—

Regarding Stella's teaching experience, she taught in a public boy's school during the first practicum of the academic year 2011. She was assigned to teach English to two classes of 10th grade students; each was considered a large size classroom with a total of 43 students. Stella described that the focus of her lessons was on grammar teaching more than other communication skills since grammar was the focal teaching point of the school; therefore, overall of her students had low writing and reading performance. She mentioned using different teaching techniques such as using positive comment or rewards to motivate students' learning, using interesting activities such as games as well as interesting materials and lesson introductory to draw their attention.

In the second teaching practicum, Stella was assigned to teach two classes of 10^{th} grade students. The class that was observed consisted of approximately about 40 mixed-gender mixed-ability students. The classes were traditional classrooms with blackboard at the front and no technology such as computer or amplifier provided. Stella gave positive comment about the class that was chosen to be observation case of this study that students were attentive and very responsible. Although there were students who exhibited misbehaviors such as talking or getting carried away during the class, their friends could manage them to reconnect. The best teaching strategy to engage theses students in her class was using interesting activities to promote their participation as well as providing chances to become independent learners.

During this study implication, Stella's class was observed 4 times, and she was asked to submit 4 reflective journals according to the classes observed. However, there was a technical problem occurred during the video recording of the second classroom observation which led to a corrupted video file. The researcher considered that without the video file, the blended learning supervision process would not be completed since in order to write reflective journals, participants had to use the teaching clips as though provoking tool. Thus, her second observation and second reflective journal were excluded from the data analysis as shown below:

Observation	Observation and reflective journal	Topic of teaching		
date				
17/01/12	1 st observation & 1 st reflective journal	Articles		
14/02/12	3 rd observation & 3 rd reflective journal	Reporting symptom using		
		has/have/feel		
28/02/12	4 th observation & 4 th reflective journal	Pronunciation of		
		the simple past –ed verbs		

Participant2: Fiona

Similar to Stella, Fiona was a female participant in her early twenties and also a current fifth-year student teacher majored in English and counseling psychology and guidance. Fiona started her English language learning journey very early in kindergarten level; therefore, she had spent 12 years learning the language before furthering her education in university level. She described her English class in primary school as 'challenging' in terms of learning content; specifically grammatical content, since she was exposed to the content that was one-level higher than her current level of competency. However, she overcame that challenge because of the teaching methods employed by her teacher. The method was a combination of clear explanation with a good touch humor in which Fiona later stated that it influenced her teaching style afterwards. Later, she found out that the language learning experience in secondary school level was less attractive in terms of the content and

the way it was delivered considering the content was similar to what she learned in her primary level and the teaching methods used were mainly traditional.

Relating to the English language learning and teaching belief, Fiona asserted that learning English had similar attribute to 'sports training' as they both needed expertise to perform effectively and expertise could not be obtained elsewhere except from regular practice. Being a teacher; therefore, was comparable to 'being a mother'. Besides the motherly bond, mother was the person who knew and understood her children, disciplined them, and educated them so that they could live lives and overcome problems. She said:

Interview Excerpt2: To teach English, using variety of activities motivates students' learning

"ความคิดนี้ทำให้หนูพยายามที่จะ<u>ออกแบบการสอนให้มีความหลากหลาย</u> มีกิจกรรมที่เปิดโอกาสให้ นักเรียนได้พัฒนาทักษะการอ่านและการเขียน ให้นักเรียนได้เรียนภาษาอังกฤษอย่างสนุกสนานและได้ ประโยชน์มากที่สุด"

"This belief drove me to <u>design versatile lesson activities</u> that allowed students to improve their writing and reading skills; therefore, they learn English enjoyably and got full profit out of that"

-Excerpt from Fiona's comment in FB practicum group (21/03/12)—

In terms of teaching experience, Fiona taught in a public coeducational school during the first practicum of academic year 2011. She was assigned to teach an elective English course to a class of 25 students in 8th grade level. Since it was an elective course, teaching writing and reading skill was the focal point. She mentioned using games to engage students in the lessons as well as avoided using read/translate teaching method but rather using variety of activities to encourage students to interact with the reading content.

In the second teaching practicum, Fiona was assigned to teach two classes of 9^{th} grade students. The class that was selected to be this study case consisted of 37 students and was situated in a traditional classroom with blackboard in front and no technology tools provided. Overall, her class was passionate and enthusiastic, and

the best teaching strategy used to engage them was offering them clear and understandable explanation.

During this study implication, Fiona completed 4 supervisions and submitted 4 reflective journals according to the classes observed. However, her second observation and second journal were excluded for data analysis purpose.

Observation	Observation and reflective journal	Topic of teaching		
date				
26/01/12	1 st observation & 1 st reflective journal	Reading: You look just like me		
14/02/12	3 rd observation & 3 rd reflective journal	Conditional sentence: Type2 and 3		
01/03/12	4 th observation & 4 th reflective journal	Infinitives		

Participant3: Nate

Nate was the only male participant in this study. He was in his early twenties and also a current fifth-year student teacher majored in English. His journey as an English language learner began at very early age since he went to a private kindergarten school where he started learning about ABC alphabets. Once entering the primary and secondary school, he already had extensive knowledge repertoire comparing to other students at the same level; however, Nate was disappointed with the way English was taught in both school levels, and used adjectives such as 'traditional' and 'dissatisfied' to describe his learning experiences. Consequently, tutorial school played an important role in his journey. Although similar grammatical content was taught in the tutorial school, Nate had acquired additional knowledge about reading strategies. Additionally, he adopted the tutorial school teaching style in his teaching. He said:

Interview Excerpt3: To teach English, focusing on details is important

"วิธีที่ติดมาจากที่เรียนพิเศษคือเค้าจะเน้นรายละเอียดเยอะ ผมก็จะ<u>สอนเด็กแบบเน้นรายละเอียด</u>ซึ่งบางที่ ก็รู้ตัวว่าเน้นเยอะเกินไป" "My teaching method that was influenced by the tutorial schools was <u>paying attention</u> to <u>details</u>, and I know that I, sometimes, overly emphasize them.

- Nate's individual focus interview (14/04/12)-

Regarding the belief about English language teaching and learning, accuracy and practice were the key components. English language teacher should be equipped with content knowledge and great communication skills to deliver accurate and clear message to learners; furthermore, teachers should give students opportunities to practice the language in terms of structure and communication purpose. Nate used the metaphor of 'televisions' and 'the broadcast frequencies' to represent the concept of language learners and teachers. Students (televisions) could not be successful if the frequency or the message that teachers sent was weak; on the other hands, if teachers sent accurate message but students, or televisions, did not determined or focused to learn, the learning achievement could not happen as well.

Nate got prior teaching experience when he did his first practicum in the academic year 2011. He taught English to classes of 55 students in 9th grade who, overall, had profound fundamental knowledge about English. His teaching focus was on vocabulary and grammatical teaching with a limited amount of conversation practice and classroom activities since the needs of his students was to 'study for exam'. Most of the students were very active self-directed learners who thirsted for knowledge; as a result, Nate had to broaden his knowledge along the way as well.

In the second teaching practicum, Nate was assigned to teach four classes of 7th grade students. The class that was observed consisted of 30 moderate and high proficiency students, and it was situated in a traditional classroom with blackboard at front and no technologies provided. The main focus of his class, as Nate explained, was on grammar structure because students needed to study this content for exam; however, he tried incorporating other communication skills and games to add variation in class. Last but not least, Nate tried to more relax since he noticed from the last practicum that he was too serious which led to stiff classroom atmosphere.

During this study implication, Nate completed 4 supervisions and submitted 4 reflective journals according to the classes observed. However, her second observation and second journal were excluded for data analysis purpose.

Observation	Observation and reflective journal	Topic of teaching		
date				
26/01/12	1 st observation & 1 st reflective journal	Favorite subjects		
14/02/12	3 rd observation & 3 rd reflective journal	To be going to		
01/03/12	4 th observation & 4 th reflective journal	Can/Can't		

Participant4: Gina

Gina was also female participant in her early twenties and also was a current fifth-year student teacher majored in English and special education. Prior to pursuing education in university level, Gina spent 7 years learning English. She experienced her first official English learning at 4th grade in primary level; however, it was her mother who was very determined to self-taught her language long before that. Once she entered the primary school, Gina mentioned that she became the expert among her friends and this experience had boosted up her confidence in learning the language from then on. When entering the secondary school, the same attitude was adopted still.

Teaching materials such as pictures and realias were employed to motivate students in primary level; on the other hand, grammar translation was the main teaching method adopted in secondary leveled English class. In contrast to previous participants, Gina expressed positive attitude towards the way English was taught in both primary and secondary level. Gina explained that the grammar translation approach employed in secondary level matched her learning preference; moreover, it even became her teaching principle afterwards.

Speaking of Gina's belief about English language teaching and learning, 'absolute conclusion' seemed to be the teaching and learning principle that she adhered to. Gina explained that she was quite an independent learner whose learning goal was to be successful in exam; therefore, her expectation when studying

class was just to know the lesson summarization from teachers which she could memorize and answer the exam questions.

Interview Excerpt4: To teach English, memorizing rules is important since it helps students pass the test.

"ชอบอะไรที่มีคำตอบตายตัว เน้นการจำ ชอบเรียนแบบที่ครูอย่ามานอกเรื่อง จี้ตรงๆเลย แล้วเวลาสอน หนูก็สอนแบบนั้นนะ....อย่างเวลาสอน

แกรมม่าจะชอบมากตอนเฉลยคำตอบแล้วสามารถตอบเด็กได้ว่าที่เป็นแบบนี้เพราะอะไร ทำไมเติม hers ก็เพราะไม่มีคำนามตามหลังไง ถ้าเด็กได้คอนเซ็ปนี้นะไปเจอข้อสอบกี่ร้อยข้อก็ทำได้"

"I don't like being synthesis or analysis. I love absolute answer, love memorizing things, and love when teachers tell me directly what I need to know; therefore, I apply this concept in my teaching. When teaching grammatical topic, I feel successful since I am able to tell them the reason why this answer is correct; for example, the reason why the answer has to be 'hers' because it isn't followed by any nouns. If students get this concept, they can pass any tests"

- Gina's individual focus interview (27/04/12)-

Speaking of prior teaching experience, Gina spent a semester teaching in a coeducational public school which she was assigned to teach English to two classes of students in 9th grade during the first practicum of the academic year 2011. One of them was a class of students with special needs; therefore, her responsibility, apart from teaching English, also included design teaching materials that answer their learning needs.

During the second teaching practicum, Gina was assigned to teach two classes of 50 students in 9th grade. The class that was observed situated in a traditional classroom with blackboard in front and no technologies provided. Gina reflected that students in this class very much resembled her younger self in a way that they were selective learners; they knew which content to achieve the goals.

During this study implication, Gina completed 4 supervisions and submitted 4 reflective journals according to the classes observed. However, her second observation and second journal were excluded because of the corrupted video file recorded from the second observation.

Observation	Observation and reflective journal	Topic of teaching		
date				
17/01/12	1 st observation & 1 st reflective journal	Weather forecast		
14/02/12	3 rd observation & 3 rd reflective journal	Comparative adjectives		
28/02/12	4 th observation & 4 th reflective journal	How to order food in a restaurant		

In conclusion, the description presented above suggested that each student teacher was not cut from the same cloth. Their journey as English language learners was not exactly the same so did their teaching experience. Thus, their prior experiences, their interpretations of past learning and teaching activities they were engaged in, and also the context of school where they worked were extremely influential in shaping how and why each student teacher did what they did.

2.2 Effectiveness of blended learning supervision model on student teachers' reflective ability

The findings were divided into 2 parts. The first part focused on the report on the influence of the blended learning supervision model on student teachers' reflective ability. The data were analyzed from reflective journals using reflective ability scoring rubrics which divided reflective ability into four levels, naming 1) non-reflection, 2) descriptive reflection, 3) dialogic reflection, and 4) critical reflection. The second part sought explanation of how the blended learning supervision helped shaping the improvement mentioned in the first part. The data obtained from reflective journals were analyzed to give explanation.

2.2.1 Findings on student teachers' reflective ability development

After rating all the reflective journal entries, each student teacher's reflective ability scores were illustrated below.

Table 10: Findings on student teachers' reflective ability improvement

Participants	Reflective ability scores (Total=20)					Level	
	Reflection 1	Level	Reflection 3	Level	Reflection 4	Level	gain
Stella	10.5	2	11	2	10.5	2	0
Fiona	12	2	10	2	13	3	+1
Nate	12	2	11.5	2	13	3	+1
Gina	12	2	10.5	2	10	2	0
×	11.63	2	10.75	2	11.63	2	0

In this study, reflective ability was divided into 4 levels, including non-reflection, descriptive reflection, pedagogical reflection, and critical reflection. First, the non-reflection level which was the lowest one suggested that the reflection was just a mere ignorance. Second, the descriptive reflection reflected student teachers' general understanding of classroom situation, mostly demonstrated through their perspective only. Third, the pedagogical reflection indicated student teachers' deeper analysis of classroom situation which was presented through various perspectives. Lastly, the critical reflection indicated student teachers' recognition of how their personal belief and other social factors contributed to the classroom situation.

In general, the finding suggested that reflective ability of all student teacher remained at the level 2, descriptive reflection. However, when consider the reflection level of each student teacher; there were two individuals; Nate and Fiona, whose reflection level increased to level3, pedagogical reflection. Stella and Gina, in contrast, remained at the level 2 throughout the study. This indicated that reflection of Nate and Fiona initiated deeper analysis of classroom situation. They attempted to interpret and explain the situation through different perspectives rather than from

their personal point of view only. Furthermore, there were evidences of effort to extend their reflection towards students' learning instead of confining the reflection on teaching and instructional activities. Examples journal excerpts elicited from Fiona and Stella illustrated these differences.

Journal excerpt1: Fiona's reflection- thinking from students' point of view

"<u>สาเหตุหนึ่</u>งที่ทำให้การสอนในวันนี้ค่อนข้างตะกุกตะกักพอสมควรมาจากการที่<u>หนูใช้สื่อบนกระดานเยอะ</u>
<u>เกินไป</u> ซึ่งอาจจะส่งผลทำให้อารมณ์หรือการปะติดปะต่อเรื่องราวของนักเรียนขาดช่วง จนทำให้นักเรียน
เกิดความเบื่อหน่ายและไม่อยากติดตามเหตุการณ์ต่อไป <u>หนูลองนำตัวเองไปเป็นนักเรียน</u> ถ้ามีครูมายืน
สอนแบบนั้น หนูเองก็คงรู้สึกงงเหมือนกัน"

" One of the reasons that stumbled today class was the <u>dense cluster of teaching materials used during my teaching.</u> It disturbed students' learning as well as blocked their stream of attention; therefore, they were bored and drifted away from my teaching. <u>If I were students</u> and had to learn with the teacher who managed the class incoherently, I would be very confused"

-- Excerpt from Fiona's 3rd reflective journal-

Journal excerpt2: Stella's reflection- thinking from teacher's point of view

"หนูสอนนักเรียนแบบให้นักเรียนเห็นตัวอย่างการออกเสียงคำคัพท์ก่อน แล้วจึงให้นักเรียนออกเสียงตาม ซึ่งวิธีนี้ทำให้ห้องเรียนค่อนข้างอื่มครีม"

"I taught students by demonstrating them how to pronounce the vocabs first then having them repeat after me. That was why the classroom was demotivated"

-Excerpt from Stella's 4th reflective journal-

The two excerpts provided above were classified into the questioning stage based on the reflective ability scoring rubrics used to assess student teachers' reflective ability in this study. The questioning stage required student teachers to analyze their classroom situation to seek explanation about what caused the classroom challenges.

Referring to Fiona's excerpt, she was able to identify that the cause of challenge was from implementing too many teaching materials in the lesson. This perspective was drawn from teacher's point of view. Not only referring to the perspective from teacher's aspect, Fiona also consider how excessive teaching tool

usage affected students' learning. The phrase "if I were students" showed her attempt to reflect the situation from students' point of view as well.

In contrast, Stella identified the cause of challenge through her perspective as a teacher using the phrase. She only stated that it was because of her teaching strategies that caused the dull classroom atmosphere. It is clearly seen that Stella confined her reflection on specific teaching aspect, but did not expand her reflection using perspectives from other sources.

2.2.2 Findings on how blended learning supervision helped shaping student teachers' reflective ability

Referring to the components and process of blended learning supervision, student teachers' reflections were triggered by two things: 1) mediation on face-to-face scaffolding on teaching performance and 2) mediation on their teaching video clips. The face-to-face scaffold served as knowledge from expert that helped student teachers to understand their teaching through an expert's eyes while what they saw on video clips trigged their experiential knowledge which was their understanding emerged through their lived experience as learners of teaching. To create meaningful reflection, student teachers had to link the expert knowledge with their own experiential, and internalize such concept in order to reframe the way they understand and interpret their teaching experience.

After examining all reflective journals, the researcher found that among the four student teachers, Nate and Fiona were the two student teachers whose reflective journals apparently indicated a thread between supervisor's expert knowledge and their experiential knowledge as well as revealed trace of how they reconstructed new understanding about their teaching practice.

For example, within his first observation, he received scaffold from supervisor concerning three areas of teaching, naming the slow teaching pace, the lack of English language used in class, and the lack of student-centered activity. After considering the scaffold received and watching his teaching clip, Nate mentioned the problem that his students were too focused on completing the activity regardless

how to achieve it; furthermore, he mentioned that his students did not use English language as much as he first expected. The researcher saw evidence of relationship between supervisor's expert knowledge and Nate's experiential knowledge when he 'questioned himself' that the reason why his students did not speak English might be because he did not use English in class enough to motivate students to start using English.

Additionally, his reflection also showed that Nate reflected further about how the lack of target language use in class might affect students' learning. Based on the reflective ability scoring rubric used in this study, the phrase "if students did not use English" indicated that he attempted to include students' perspective into his reflection.

Journal excerpt3: Awareness that teacher is the major source of motivation

"พอเจอสถานการณ์นี้ ผมก็<u>กลับมาถามตัวเองว่า</u>ผมได้ส่งเสริมให้นักเรียนได้ใช้ภาษาอังกฤษในชั้นเรียน อย่างเต็มที่แล้วหรือยัง ซึ่งเรื่องนี้เป็นเรื่องสำคัญมาก <u>เพราะถ้านักเรียนไม่ได้ใช้ภาษาอังกฤษ</u>ในการสนทนา ก็เท่ากับว่านักเรียนไม่มีโอกาสใช้ภาษาอังกฤษในกิจกรรมเลย ผมคิดว่าสาเหตุที่ทำให้เกิดเหตุการณ์นี้เป็น เพราะผมส่วนหนึ่งด้วยที่ใช้ภาษาอังกฤษน้อยไป"

"Facing this challenge, <u>I questioned myself</u> whether I fully motivated students to use English in class? This was a very important issue since <u>if students did not use English</u> in conversation dialogue, it indicated that students didn't learn or didn't have a chance to practice English in this activity at all. I think that the reason of this challenge was because I myself did not speak English much"

--Except from Nate's 1st reflective journal—

In journal excerpt 4, Nate showed that because of the new awareness gained had enabled him to reconceptualize how he view English language teacher. The journal excerpt number 4 was classified into promising change stage based on the reflective ability scoring rubrics used in this study. In this stage, student teachers were required to propose new plan for deal with the classroom challenge if it happens again. New insight learned from the situation was also required. The word 'thus' in Nate's journal excerpt indicated the new insight gained regarding the concept of English language teacher. Nate, now, realized that English language teacher should be the role model that students could look upon in using target language in class.

Journal excerpt4: Reconceptualizing- English teacher's responsibility

"<u>ดังนั้นการเป็นครูภาษาอังกฤษในความคิดของผม</u> จำเป็นต้องพูดภาษาอังกฤษทั้งคาบเพื่อให้นักเรียนได้ คุ้นชินกับภาษาและอยากใช้ภาษาตามไปด้วย"

<u>Thus, English language teacher in my opinion</u> should communicate in English throughout the lesson so that students would get accustomed with English language and also would use English more"

--Except from Nate's 1st reflective journal—

Similarly to his final observation, he received scaffold from supervisor regarding his activity pace and students' disengagement during practice stage. Nate responded to the feedback on activity pace that it was slow because he did not aware that students needed a certain amount of time to distinguish between the ability that the animal can or cannot do based on pile of vocabulary given. He, then, realized that teachers were not only capable of thinking through every teaching step but also had to be well-prepared in case unexpected problem occurred.

Again, this excerpt was classified into the promising change stage. Nate proposed the change in his concept about being an English language teacher. The word 'therefore' indicated the turning point in his thought that teacher should be well-prepared to solve any unexpected classroom problems.

Journal expert5: Reconceptualization - English teacher's responsibility

"ผมรู้สึกว่าผมคิดน้อยไปหน่อยที่เหมารวมว่าการสอน task-baseนั้นก็คงใช้เวลาเหมือนๆกันทุกคาบ แต่ที่ จริงไม่เป็นเช่นนั้นเสมอไป ดังนั้นในฐานะครู ผมคิดว่าเราไม่ควรเหมารวมหรือคาดการณ์ว่าเหตุการณ์แบบ นั้นแบบนี้จะเกิดขึ้นอย่างที่เราคิดแน่นอน เพราะมีหลายปัจจัยที่อาจะทำให้เกิดการเปลี่ยนแปลงได้ เ<u>พราะฉะนั้นครูต้องรู้จักเตรียมตัว</u>รับมือกับปัญหาที่ไม่รู้ว่าจะเกิดขึ้นเมื่อไหร่ตลอดเวลา"

"I knew that I was very naïve to assume the every task-based lesson would need exact same amount of time; however, it isn't! As a teacher, I think we cannot assume or overly ensure that our teaching would go exactly according to what we planned since there are many factors that could affect it. Therefore, we have to be well prepared to cope with any unexpected problems occurred"

--Except from Nate's 4th reflective journal—

Fiona's final reflective journal indicated evidence of how she related her experiential knowledge with supervisor's expert knowledge. During the face-to-face meeting with supervisor, Fiona received scaffold regarding two topics: 1) the type of group work used during the practice stage that it should have promote every member's participation, and 2) the lack of scaffold provided during the practice stage. The researcher saw the evidence of how Fiona attempted to ponder on the supervisor's feedback about her choice of group work that it should promote students' participation when she mentioned that she planned to assign roles to all group members.

The excerpt number 6 was classified into confrontation stage based on the reflective ability scoring rubric used in this study. Within this stage, student teachers were asked to analyze the effectiveness of their solution made in the class. Fiona mentioned that she had to let her students form their own group due to the time limitation. This solution was not quite effective since students did not pay attention to complete the activity.

Journal excerpt6: Plan VS Reality

"ในการจัดกิจกรรมกลุ่มครั้งนี้<u>หนูตั้งใจ</u>จะมอบหมายหน้าที่ให้สมาชิกกลุ่มแต่ละคนอยู่แล้วแต่ว่าความตั้งใจ
ก็ล้มเหลวเพราะนักเรียนจัดกลุ่มกันเอง <u>คือตอนแรกหนูวางแผนว่า</u>จะให้เค้าจัดกลุ่มโดยการนับเลข 1-6 <u>แต่</u>
<u>ว่าเ</u>วลาไม่ทัน ก็เลยต้องให้นักเรียนจัดกลุ่มกันเอง หนูจะได้เริ่มทำกิจกรรมได้สักที ถึงแม้ว่าในกลุ่มที่
นักเรียนจัดนั้นจะทั้งเด็กเก่งและเด็กอ่อนคละกันอยู่ก็จริง เด็กก็ยังคงไม่สนใจทำกิจกรรมแต่สนใจที่จะคุย
กันเองมากกว่า"

"I did attempt to assign role to every student in the groups; however, <u>my attempt failed</u> since students picked their own group. <u>At first I planned</u> to have them divided into groups by letting them count 1-6; <u>however</u>, the time was running out. I had to let them form the group as they wanted in order to move on to the activity. Although the groups consisted of mixed-ability members, they'd rather talked among themselves instead of helping each other achieving the activity"

--Except from Fiona's 4th reflective journal—

When Fiona learned the gap between reality and plan, she described her emerging understanding of her role as a teacher if she wants to be successful.

Journal excerpt7: Reconceptualization- English teacher's responsibility

"จากเหตุการณ์ในครั้งนี้ทำให้หนู<u>เรียนรู้ว่า</u>ครูต้องมีสติในการเตรียมรับมือกับปัญหาที่จะเกิดขึ้น ตลอดเวลา"

"Today lesson made me <u>realized</u> that teachers need to be composed and be ready to encounter any unexpected problems"

--Except from Fiona's 4th reflective journal—

In brief, the findings on reflective ability improvement suggested that although student teacher reflective ability in general did not improved, there were two student teachers whose reflective ability increased from descriptive to pedagogical level. The findings also suggested that student teachers' reflective ability was improved due to the face-to-face scaffold about teaching given by supervisor and online teaching clips. For example, Nate mentioned that while he was watching his teaching clips and pondering on the journal guiding questions, he was able to reflect on weaknesses and strengths in his teaching. He said:

"คำถามที่ของ journal ที่โพสไว้ออนไลน์ช่วยผมให้สามารถ<u>ระบุสิ่งที่ยังขาดอยู่ในการสอน</u>ของผมได้ เรียก ได้ว่าช่วยให้เห็นว่าข้อเสียและข้อดีอย่างชัดเจน"

"The journal guiding questions provided online helped me <u>identify the gaps in my</u> <u>teaching</u>. It helped brining my strengths and weaknesses into light"

จหาลงกรณ์มหาวิทยาลัย

Similarly to Fiona who mentioned about how face-to-face interaction with the supervisor provided her a food for thought for her reflections. She said:

"การคุยกับอาจารย์ทำให้<u>หนูคิดนอกกรอบที่หนูวางเอาไว้</u> ช่วยให้หนูสามารถเห็นช้อดีช้อเสียของการสอน ของตัวเองได้ง่ายขึ้น"

"The face-to-face feedback conference with the supervisor helped me <u>thinking beyond</u> my personal scope. It also helped me identifying my strengths and weaknesses easier.

Based on the sociocultural theory, the evidence from Nate and Fiona suggested that blended learning supervision model provided them with useful input from mediation with supervisor and mediation with tools, i.e. teaching clips and guiding questions. These dialogic inputs provided student teachers with reflective

opportunities to analyze, ask question, and justify their belief and practice about teaching.

2.3 Effectiveness of blended learning supervision model on student teachers' teaching performance

Within this section, the findings on student teachers' teaching performance improvement were divided into two parts. The first part focused on the quantitative analysis received from classroom observation scoring rubric which divided level of teaching performance into 4 levels naming need improvement level, initial level, competent level, and proficient level. The second part brought clarification of how blended learning supervision model enhance student teachers' teaching performance. Data analyzed from student teachers' teaching clips, reflective journals, and from supervisor feedback helped brought the findings into light.

2.3.1 Findings of student teachers' teaching performance development

After calculating student teachers' scores received from classroom observation scoring rubric, the findings on their teaching performance development was illustrated in the following table.

Table 11: Findings on student teachers' teaching performance improvement

	Classroom observation (Total= 48)					Level	
Participants	Observation 1	Level	Observation 3	Level	Observation 4	Level	gain
Stella	15	2	28	3	30.5	4	+2
Fiona	16.5	2	30.5	4	29	3	+1
Nate	17.5	2	32	4	32.5	4	+2
Gina	18	3	28	3	32	4	+1
×	16.75	2	29.63	3	31	4	+2

According to the findings presented, the overall teaching performance suggested that the student teachers' teaching performance increased from level 2, initial to level 4, proficient. When considering each student teacher's development, it was obvious that the Stella, Nate, and Gina moved from initial to proficient level while Fiona moved from initial to competent level. The improvement indicated that all student teachers demonstrated positive changes in terms of lesson planning, lesson presentation, and lesson evaluation. For example, they were able to plan more cohesive lessons that lesson objective, activity, and evaluation were corresponded. Additionally, the teaching tools used were more versatile and more engaging.

2.3.2 Findings on how blended learning supervision model helps shaping student teachers' teaching performance

The components and processes of blended learning supervision that were influential in developing student teachers' teaching performance included 1) online scaffolding on lesson plans, 2) face-to-face scaffolding on teaching performance, and 3) self-reflection. When submitting lesson plan back and forth online as well as having face-to-face discussion, student teachers and supervisor created interactions supporting student teachers to complete teaching task that they could not be able to achieve individually. Mediating on narratives reflected about previous teaching gave student teachers understanding on their own teaching journey and were able to selectively incorporate what was already learned in the future practice.

When analyzing the scaffold given to student teachers at the pre and post-observation stages, the researcher indicated five types of scaffold often used by supervisor naming questioning, describing, assessing, suggesting, and explicating. Each type of scaffold served different purposes in supervision process. The followings were examples derived from supervisor's scaffold at the pre and post-observation to show how each type of scaffold was used.

1. Questioning

Usually the open-ended question 'How' was used to raise student teachers' awareness and encourage them to clarify about specific teaching domains. It was found during both pre and post observation. For example, the supervisor commented on Stella's first teaching regarding the proportion between teacher-talking time and student-participation time. The supervisor stirred Stella's awareness by asking "Since your today teaching focused on content, how would you appropriately create a balance between your presentation and students' practice?" Another example was derived from scaffold on Fiona's forth lesson plan. Supervisor asked Fiona "How will you check your students' understanding?" when she realized that Fiona's evaluation was not conforming to her terminal objective and wanted Fiona to reconsider that activity.

2. Describing

This type of scaffold was used to restate or echo what supervisor gained from observing student teachers' classes; therefore, this scaffold was usually found at the post-observation discussion. For example, the supervisor commented on Gina's first teaching as "From my observation, students seemed to pay more attention on drawing and coloring the celebrity pictures than forming sentences" in order to communicate the real situation happened during the class to Gina.

3. Assessing

Assessing scaffold was found at the pre and post-observation stage since it was used to provide negative or positive assessment on student teachers' plans or teaching performance. The positive assessment ensured student teachers to keep doing that good job while the negative assessment gave them a red flag on the area that needed reconsideration. For example, In Fiona's first teaching, the supervisor mentioned "There was still a mismatch between your lesson goal and your evaluation" to prompt Fiona that she needed to pay more attention on the correspondence of lesson goal and evaluation. Example of positive assessment regarding how lesson plan was constructed and how the teaching was executed was found in Nate's lesson plans and in all his classroom observations. The supervisor often said "Your teaching was well organized so did your lesson planning".

4. Suggesting

Suggesting was often found at both pre and post-observation stage and was the most employed scaffold type. Supervisor proposed general suggestion on the teaching domains that needed to be improved, needed more clarification, or needed to put on thinking cap. For example, supervisor suggested every student teacher after finished their first observation regarding the amount of English language used in class. She mentioned, "*Try to speak English in class more*" to encourage student teachers to use English with their students more.

5. Explicating

This type of scaffold was used when supervisor wanted to make explicit suggestion or explanation on student teachers' plans or teaching practice; therefore, this scaffold was mostly used at both pre and post-observation stage. Additionally, it was usually used when supervisor wanted to make elaborated comments. For example, after Stella's first observation ended, supervisor was very concerned about her traditional teacher-centered instruction; therefore, the supervisor gave a quite elaborated suggestion on how Stella could implement more student-centered activity in her teaching. The supervisor mentioned "You can use comic stripe to create an activity. If you use the four panels comic, you can create a dialogue that related to a, an, the. Then ask students to read and create their own ending using sentences with a, an, the as well."

After analyzing the supervisor's feedback, student teachers' teaching clips, and their reflective journals, there were pieces of evidence showing that scaffolds either online or face-to-face from supervisor as well as self-reflection played a role in helping student teachers reconstructed their performance as illustrated in cases below:

Case1: A change in lesson planning

The most distinguished case had to be Gina's. Her first lesson plan lack cohesion. Her lesson objectives were not clear; therefore, each activity echoed this ambiguous of how the language would be taught and learned in class. Thus, the supervisor gave lots of explicating and suggesting scaffold to help Gina brainstorming

new idea and providing her direction. Gina, then, was able to plan a more meaningful lesson, and her improvement was recognized by the supervisor during the observation stage as she complemented "Your plan and activity was significantly improved from the first draft. Overall this lesson was enjoyable".

Another example was derived from Stella's case. In her first observation, supervisor mentioned that her class was rather a traditional classroom where the focus was placed on teacher talk rather than on students' learning. Stella also externalized this concern in her reflection saying that her teacher-centered teaching style was an obstacle for students' learning. In her next lesson plan, she altered her lesson plan by creating the design the plan in context that related to student teachers' everyday life and used group work to create classroom variation. The supervisor affirmed her improvement mentioning that she liked the way Stella created this lesson using a situation that was relevant and helped engaging students in activity.

Case2: A change in the use of target language in class

This change was clearly traceable from Nate's case. In his first observation, supervisor suggested him to speak English more in class. Nate, in his reflection, mentioned that he himself realized that he should have used more English so that his students would take him as a model and were encouraged to speak English. Once Nate recognized this shortage, he began to seek change in his interaction with students. The evidence from teaching clips indicated Nate's effort to communicate with his students in English.

Case3: A change in activity planning

Thus change was indicated in Fiona's final observation. From the teaching clip, Fiona showed her effort to randomly divide students in groups and assign role to group member in order to encourage them to work cooperatively. This change could be traced back to Fiona's previous reflection since she noticed that not all students participate in the group work, she urged to solve this problem. Thus, change in her group work activity was evidenced in her final teaching.

In conclusion, the findings on teaching performance; on the other hand, indicated an improvement in all student teachers. The findings also suggested that blended learning supervision helped student teachers developed their teaching performance through the face-to-face and online scaffold given by supervisor as well as their self-reflections. All five scaffolds naming questioning, describing, assessing, explicating, and suggesting were employed with an aim to create opportunities for student teachers to reconsider their decision and make changes in teaching practice. These findings were aligned with sociocultural theory idea that student teachers were able to reach the self-regulated stage where they were able to achieve the performance independently after they had been receiving scaffolding from more experienced peer until they were able to internalize and perform the expected teaching performance automatically.

Part3: The findings on student teachers' and supervisor's opinions towards the blended learning supervision model

To answer question number three: what student teachers' and supervisor's opinions towards the blended learning supervision model are, data collected from semi-structured interview was analyzed. Thus, this section was divided into two parts. The first part focused on opinions derived from student teachers while the second part focused on opinions given by supervisor.

3.1 Student teachers' opinions towards the blended learning supervision model

The data from semi-structure interview with student teachers indicated that they had positive attitude towards the blended learning supervision model. After reading through the interview transcription, the researcher classified their opinions into 3 aspects which were 1) opinions towards technology; 2) opinions towards reflection, and 3) opinions towards interaction.

3.1.1 Opinions towards technology

First, Student teachers stated that online technology such as e-mail and Facebook allowed them to communicate with supervisor more often than usual. One student teacher mentioned that he could not have this experience if only face-to-face supervision was exploited. The online part helped ensuring him that he was not left facing the problem alone.

Interview excerpt1: Technology increased sense of support

"ผมว่าการคุยกันออนไลน์เนี่ยทำให้ผมสามารถติดต่อ คอมเม้นท์กับอาจารย์ได้ทุกเวลา แม้ว่าตอนนั้นจะ อยู่กันคนละที่ก็ตาม <u>ผมรู้สึกเหมือนกับว่ามีคนดูและผมตลอดเวลา รู้สึกอุ่นใจ</u> ไม่เหมือนนิเทศแบบเก่าที่ อาจารย์เดือนนึงมาดูเราที เวลาเราเหงาหรือท้อแท้ก็ไม่มีคนคุยด้วย"

"Through online communication, I can contact or send comment to supervisor anytime although she was not with me at the moment. The feeling that I am looking after at all hours calms my nerve. Unlike the traditional supervision that I felt left alone and desperate since the supervisor paid a visit only once a month"

- Nate's individual interview (14/04/12)—

Another opinion about technology used in blended learning supervision model focused on how it facilitated student teachers' reflection. They mentioned agreed that their teaching video clips helped bringing out new perspective about their teaching and their students since they were encouraged to carefully examine their own class as an outsider while watching the clips.

Interview excerpt2: Technology-enhanced reflection promoted self-observation

<u>"คลิปวีดีโอมันทำให้เหมือนกับว่าเราเป็นผู้ชม</u> อย่างปกติเนี่ยเวลาผมสอนผมก็ไม่รู้หรอกนะว่าตัวผมสอน เป็นยังไงบ้าง แต่ว่าพอมาดูคลิป ได้กลายเป็นผู้ชมทำให้ผมเห็นว่าตรงไหนที่ผมทำได้ดี ตรงไหนยังต้อง ปรับปรุง"

"The teaching clips put me in the audience seat. While teaching, I really didn't realize about my performance. However, I noticed what I did well or didn't do well when I became the audience of my own teaching"

- Nate's individual interview (14/04/12)—

Interview excerpt3: Technology-enhanced reflection helped student teachers notice things about their teaching.

"จริงๆตอนที่หนูสอน หนูก็ไม่รู้นะว่าตัวเองทำได้ดีแล้วรียัง แต่ว่าพอได้มาดูวีดีโอเนี่ย<u>ทำให้เห็นเลยว่าตัวเอง</u> เ<u>ป็นอย่างไร การเดินการพูดนี่เห็นมาเป็นภาพเคลื่อนไหวเลย</u>"

"When I was teaching, I could not imagine how I performed. However, <u>I could see</u> myself, see how I walked or talked in a motion picture when watching the clips"

- Stella's individual interview (7/04/12)-

<u>Interview except4: Technology-enhanced reflection helped student teachers</u> <u>focused on multiple aspects of classroom</u>

"หนูชอบวีดีโอนะคะ มันทำ<u>ให้หนูเห็นว่าวิธีการดำเนินกิจกรรมของเรา flow ไหม เห็นบุคลิกตอนสอนว่า เป็นยังไงแล้วก็ได้เห็นพฤติกรรมของเด็กด้วย</u> เพราะตอนหนูสอนเนี่ยบางทีก็จะโฟกัสไปที่เด็กกลุ่มที่ตอบ คำถามเสียมากจนละเลยเด็กที่เงียบๆไป"

"The teaching clips <u>helped me see the flow of my class, my personality, as well as my students' behavior.</u> During teaching, I always focused on students who participated but ignored those who were quiet"

- Fiona's individual interview (19/04/12)-

3.1.2 Opinions towards reflection

Data obtained from the interview indicated that the student teachers saw the benefit in writing reflective journals. During the interview, they used words such as 'review', 'reflect', and 'research' to express their opinions towards the reflection process. The words indicated a process that they needed to investigate and reevaluate their teachings in order to improve their teaching practice.

Interview excerpt4: Reflection was an intellectual tool promoting critical thinking and professional development

"ส่วนตัวแล้วหนูชอบการเขียน reflection นะคะ หนูคิดว่าหนูได้พัฒนาตัวเองมากขึ้น <u>มีโอกาสได้วิจัย</u> ตัวเอง แก้ไขการสอนของตัวเอง แล้วก็เอาสิ่งที่แก้ไขไปใช้ปรับปรงการสอนของตัวเองให้ดีขึ้น"

"Personally, I enjoyed writing reflective journals. I think it helped promoting my personal development since I had chances to research and reconstruct my own teaching as well as to apply what I had learned in the future"

- Stella's individual interview (7/04/12)

"หนูคิดว่าการเขียน reflection เป็น<u>การทบทวนตัวเอง</u>อย่างนึงนะคะ เพราะในขณะที่เขียนนั้นหนูได้ <u>ทบทวนว่าวันนี้หนูทำอะไรลงไปบ้างและทำได้ดีแล้วหรือยัง</u> ถ้ายังไม่ดีหนูก็ได้คิดต่อว่าจะต้องทำอย่างไร ต่อ"

"Writing reflective journal was another way of <u>self-reviewing</u>. While I wrote, I could <u>review my own actions whether I did well or no</u>t. If my teaching was not going well, I would reflect further on how to improve it"

- Fiona's individual interview (19/04/12)-

"การเขียน reflective journal ทำให้ผมได้<u>ทบทวนการสอนของตัวเอง</u> ผมสามารถใช้ความคิดของตัวเอง และความคิดที่ได้จากอาจารย์หรือนักรียนในการไตร่ตรองดูว่าสิ่งใดเป็นข้อดีและข้อเสียในการสอนของผม ผมคิดว่า reflective journal ช่วยให้ผมปรับปรุงการสอนได้ ทำให้ผมพยายามคิดหาวิธีใหม่ๆทำให้การ สอนมีข้อเสียน้อยลง ข้อดีมากขึ้น"

"Reflective journal writing gave me opportunities to <u>review my own teaching</u>. I could use my own perspective as well as perspectives from the supervisor and students to identify the strengths and weaknesses of my teaching practice. <u>I think this helped me improving my teaching performance</u>, in a way that I tried experimenting new teaching <u>strategies to strengthen up my teaching</u>.

- Nate's individual interview (14/04/12)—

"หนูมักจะกลับไปอ่าน journalของหนูบ่อยๆ เพราะหลังๆเริ่มพบปัญหาคล้ายๆกับตอนที่สอนครั้งก่อนๆ พอได้กลับมาอ่านสิ่งที่เคยเขียนไปทำให้เห็นว่าเราเคยใช้วิธีการไหนมาแก้ไขปัญหาเหล่านี้"

"I usually went back and read my reflective journals since I often encountered with similar problems again and again. Reading my prior journals gave me idea on how to solve these problems.

- Gina's individual interview (27/04/12)-

Although all saw the value in this process, it was not without drawback. One student teacher did argue that written format reflection inhibited him from being expressive since he could not convey his thought into written language very well.

Interview excerpt5: Need in integrated reflection strategies

"อันที่จริงผมว่า<u>น่าจะมีการ reflect แบบพูดคุยอย่างที่เราทำกันตอนนี้บ้าง</u> ก<u>ารพูดนี่ดูจะผ่อนคลาย มากกว่าการเขียนนะครับ</u> เพราะบางทีผมก็ไม่รู้ว่าจะเขียนสื่อความรู้สึกของตัวเองออกมากยังไงไม่ให้งง อีก อย่างผมว่าการเขียนมันค่อนข้างเดิมๆด้วย"

"I think <u>if we could reflect through interview just like what we are doing right now, it might be more relaxed than relying on written journal.</u> I usually had problem expressing my thoughts into written language. It was confusing and uninteresting"

- Nate's individual interview (14/04/12)—

3.1.3 Opinions towards supervision activities

Student teachers agreed that face-to-face and online interactions with supervisor were very helpful. One student teacher mentioned that the scaffold received helped her with lesson planning process. She never realized that every activity should be designed in context before. However, with the scaffold during pre-observation, it clarified her doubt as situated activity helped students to transfer the knowledge learned in class with real life situations. Scaffold also helped lessening her cognitive overload and gave her specific direction of how she should revise her plan.

Interview excerpt6: Scaffold lessened cognitive overload.

"คำแนะนำที่ได้จากอาจารย์เป็นสิ่งที่หนูเอามาเติมเต็มในแผนค่ะ เพราะบางครั้งหนูรู้สึกว่าแผนหนูมันยัง ไม่ใช่ แต่ก็ไม่รู้ว่าจะแก้ยังไง <u>คำแนะนำของอาจารย์ช่วยให้หนูแก้ไขได้ตรงจุดมากขึ้น</u>"

"The scaffold received from supervisor was the thing that helped fulfilling my plan. Sometimes I knew that my plan needed improvement, but I didn't know exactly what was it. Scaffold gave me specific direction"

- Fiona's individual interview (19/04/12)—

Another student teacher asserted that she used supervisor's scaffold to affirm her hypothesis about teaching. She said that she realized what was her strengths and weaknesses and was able to for ci what would happen during her teaching; therefore, the supervisor' feedback confirmed her hypothesis.

Interview except7: Scaffold helped affirming teaching hypothesis

"คำแนะนำของอาจารย์สะท้อนถึงสิ่งที่หนูคิดไว้อยู่แล้ว อย่างเช่น การใช้ภาษาอังกฤษ หนูรู้ว่าภาษาหนูไม่ ดี หนูใช้ภาษาอังกฤษทั้งคาบไม่ได้แน่ๆ ดังนั้นยังไงๆหนูก็รู้อยู่แล้วว่าอาจารย์จะต้องคอมเม้นท์เรื่องนี้ แล้วก็ เป็ะตามที่คาดจริงๆ"

"The feedback from supervisor reflected what I had already predicted. For example, I was fully aware that my English was not good; therefore, it was impossible for me to speak English throughout the class. I knew that the supervisor was going to comment on this domain, and she really did"

- Gina's individual interview (27/04/12)—

In conclusion, the opinions elicited from student teachers agreed that blended learning supervision model was helpful. Its components such as technology, interaction, and reflection contributed to their process of learning to teach.

3.2 Supervisor's opinions towards the blended learning supervision model

The data from semi-structured interview suggested positive attitude of supervisor towards the blended learning supervision model. After analyzing the interview transcription, the researcher could divide opinions of supervisor into five aspects regarding the components and process of blended learning supervision model. The five aspects were 1) opinions towards technology, 2) opinions towards supervisor's role, 3) opinions towards student teachers' role, 4) opinions towards interaction, and 5) opinion towards blended learning supervision process.

3.2.1 Opinions towards technology

From the interview, the researcher found that supervisor had positive opinion towards teaching clips and other online communication tools. Three perspectives were extracted from the data received as follows:

1) Technology-enhanced reflection could be served as learning resource for community practice

Of all the technology used in blended learning supervision model, teaching clip was her favorite one. In her point of view, teaching clip should not be used for student teachers' reflection purpose only but could be used in a larger scale such as in a methodology course or microteaching course.

Interview excerpt8:

"I think the teaching video clips could be used as <u>learning and sharing resource</u> for us, the university supervisors, to refer to in micro-teaching and methodology courses. Thus, other student teachers could be benefit from observing their friends' teaching.

- Supervisor's interview 28/04/12-

2) Technology promoted real-time assistance

The supervisor also stated that the online communication tools helped lessening student teachers' waiting time since they could reach for help at any time whenever and wherever they needed. She also mentioned about the Facebook teaching practicum group.

Interview excerpt9:

"There might be time when the student teachers may want to seek assistance from their peers and also from the university supervisor. They <u>did</u> not have to wait till they came to the university on Fridays or waited till the university supervisor goes visiting their class"

- Supervisor's interview 28/04/12-

3) Social media promoted understanding about student teachers

In her point of view, it was a good source of communication, a bank for sharing learning resource, and an archive of teaching evidence that helped her gain understanding about student teachers.

Interview excerpt10

"The online component such as FB practicum group when combined with the face-toface session <u>had helped me to understand my student teachers better</u>"

- Supervisor's interview 28/04/12-

3.2.2 Opinions towards supervisor's role – Supervisor's multiple roles helped student teachers achieving expected outcome.

Supervisor reflected about her roles in blended learning supervision model. She mentioned doing several things as a university supervisor such as helping student teachers to write student-centered lesson plans, encouraging them to put their

creative ideas into the learning activities created, inspiring them to try teaching strategies and to use effective assessment and evaluation strategies. All these aimed to help student teachers thrive on teaching practicum.

3.2.3 Opinions towards student teachers' role- Spread your wing!

Regarding the data, supervisor mentioned that each student teacher was different in terms of personality, teaching styles, and the way they improved their teaching. Additionally, she asserted that it was important for student teachers to have courage to take risk and try new way of teaching.

Interview excerpt11:

"Nate and Fiona improved a lot and I was quite happy observing them teach in their classes. I felt that they <u>would not mind the challenges they might have encountered</u> <u>using a new way of teaching</u>. They tried to maximize themselves as English teachers"

— Supervisor's interview 28/04/12—

3.2.4 Opinions towards interaction—Scaffold should be responsive and appropriate to individual student teacher's understanding and teaching ability

It was confirmed that the supervisor provided five different types of scaffold naming questioning, describing, assessing, explicating, and suggesting at the pre-and post-observation stage. She mentioned adjusting five scaffolds based on individual student teachers' needs

Interview excerpt 12:

"The types of scaffold provided at the pre-and post-observation <u>depended very much</u> on each student teacher's teaching style, personality and what <u>she/he may have</u> <u>difficulty with</u>"

- Supervisor's interview 28/04/12-

3.2.5 Opinions towards blended learning supervision process – Blended learning supervision process activated new perception about supervision

Since the process of blended learning supervision model enhanced interaction between student teachers and supervisor as well as encouraged each student teacher to reflect upon their teachings, the supervisor thought that the blended learning supervision process would help reshaping student teachers' false perception about supervision. Supervision process would not be perceived as an evaluative, hierarchical, and threatening process but would become a more constructive process where student teacher and supervisor learned from each other. The blended environment

Interview excerpt 13

"Blended learning supervision enhanced interaction between student teachers and supervisor and also encouraging student teachers to reflect upon their own teaching. This idea would reshape their false perception about supervision and encouraged them to make the most out of this process"

- Supervisor's interview 28/04/12-

In summary, the interview data clearly suggested that the supervisor hold positive opinion towards the blended learning supervision model and its components. The difference between opinions derived from student teachers and supervisor was that opinion of supervisor was more extensive. She considered blended learning supervision model from a bird-eye-view angle which allowed the researcher to understand the whole picture of supervision. Student teachers' opinion on the other hand, was more specific which gave the researcher a clear picture of how each component of blended learning supervision model influence their thinking and teaching practice.

Part4: Summary of the findings

This chapter presents the findings of the three research questions. The results of each question were summarized as follows:

1) RQ1: What are the components and process of blended learning supervision model?

As presented above, the findings revealed that the blended learning supervision model consisted of four rationales, four model components, and three supervision stages. The four rationales suggested that the model was a combination between 30% of face-to-face supervision with 70% of online supervision. Different online communication tools such as social media and e-mail were used to support the face-to-face interaction between supervisor and student teachers. Different types of communicative strategies were used to scaffold student teachers. Real classroom evidence in the form of teaching clips was also used to stimulate student teachers' reflection and internalization.

The four model components naming 1) environment, 2) agents, 3) supervision activities; and 4) technologies. The supervision process was divided into three stages naming pre-observation, observation, and post-observation. The pre-observation stage conducting online focused on lesson plan discussion and revision. The observation stage was conducted in a real classroom context to let supervisor observe and assess student teachers' teachings. The last stage naming post-observation stage was divided into two parts. The face-to-face part was conducted for supervisor and student teachers to discuss about the observation while the second part was conducted for student teachers to reflect about their teaching and shared their reflection online.

2) RQ2: To what extent does blended learning supervision model enhance student teachers' reflective ability and teaching performance?

2.1 To what extent does blended learning supervision model enhance student teachers' reflective ability?

In general, there was no significant improvement in reflective ability. However, individually, two student teachers improved from descriptive level to pedagogical level. Student teachers whose reflective ability improved were able to provide deeper analysis of the classroom situation through various perspectives, provides elaborated description about the situation was resolved, proposed practical plan or

mentioned about they had learn from the situation. In contrast, student teachers whose reflective ability did not progressed showed less detail on their reflection. They often limited the analysis to the teacher's point of view.

When considering on how the blended learning supervision model influenced the student teacher' reflective ability, the finding suggested that their reflective ability were stimulated by the scaffolds given at the post-observation stage and also by the teaching clips posted online. The quality of their reflection depends on how well they connected the knowledge got from supervisor and knowledge emerged while watching their teaching clips to reinterpret and reconceptualize their teaching experience. The reconceptualization often found in the 'confrontation' and in the 'promising change' stage. Within this reflection stage, student teachers were asked to reevaluate their action which helped provoking their new insight.

2.2 To what extent does blended learning supervision model enhance student teachers' teaching performance?

All student teachers' teaching performance increased at one or two levels higher. The findings found that their teaching performance was the influential of scaffold received during the pre-and post-observation stage as well as from their self-reflection. Five types of scaffold, naming questioning, suggesting, explicating, assessing, and describing were identified from the two stages. Student teacher incorporated the scaffold received with their self-reflection in order to make changes in teaching practice such as in lesson planning, the use of target language in class, and teaching activity.

3) What are student teachers' and supervisor's opinions towards the blended learning supervision model?

Both student teachers and supervisor expressed positive opinions towards the blended learning supervision model. Regarding the student teachers, they gave opinions on the technology aspect, reflection aspect, and interaction aspect. They reported that the technology increased their sense of support. When it was combining with reflection, the technology promoted their self-observation, helped

them noticing thins about their teaching, and helped them focusing on multiple aspects of classroom. Regarding the reflection aspect, they agreed that reflection was an intellectual too that promoted their critical thinking and professional development. However, the reflection would be more helpful if more variety of reflective strategies were provided. In terms of interaction aspect, they reported that the scaffold helped lessening their cognitive overload as well as helped affirming their teaching hypothesis.

Regarding the supervisor's side, she expressed her opinions on technology aspect, supervisor's role, student teachers' role, interaction aspect, and blended learning supervision process. Referring to technology aspect, she stated that when combining reflection with technology, the technology-enhanced reflection could serve as a learning resource for community practice. The technology such as online communication tools and social media promoted real-time assistance and promoted her understanding about student teachers. When considering about her role as supervisor, the supervisor stated that assuming multiple roles to help facilitating student teachers to achieve expected practicum outcome. Student teachers, in her opinion, were risk takers wanting to try new ways of teaching. Scaffold, in her point of view, was very beneficial if it was responsive and appropriate to individual student teacher's understanding and teaching ability. Lastly, she asserted that blended learning supervision process helped activating new perception about supervision.

Discussion of the findings was presented in the next chapter.

Chapter V

Summary, Discussion, and Recommendations

This chapter consisted of four sections. The first section described a summary of this study, including objectives, research design, and the research findings. In the second section, the interpretations of research findings were discussed. Then, the implications drawn from this study were suggested in the third section. Finally, recommendations for further researches were offered in the fourth section.

Part1: Summary of the study

This study entitled "Development of a blended learning supervision model to enhance English-majored student teachers' reflective ability and teaching performance" was conducted with three main objectives, including:

- 1) to develop a blended learning supervision model to enhance Englishmajored student teachers' reflective ability and teaching performance;
- 2) to evaluate the effectiveness of the model in terms of English-majored student teachers' reflective ability and teaching performance;
- 3) to explore opinions of English-majored student teachers and the supervisor towards the model.

This study employed research and development approach as the research design. Thus, there were four research stages, including 1) problem analysis, 2) solution design, 3) pilot study, and 4) implementation. The process and findings of each stage was summarized below.

1.1 Problem analysis stage

The problem analysis stage was conducted to identify the gaps situated in the teacher supervision process. The researcher conducted altogether three rounds of problem analysis.

The first round was conducted with three English-majored student teachers teaching in the first semester practicum of the academic year 2010 (May-August,

2010). The purpose of this round was to explore the process of teacher supervision; therefore, the researcher observed how these student teachers were supervised for one semester. There were three findings found: 1) the teacher supervision process consisted of 3 stages: pre-observation, observation, and post-observation; 2) most of the supervision activities were done in a face-to-face environment; and 3) self-reflection was rarely evident.

The second round was conducted with another group of English-majored student teachers during the second teaching practicum of the academic year 2010 (Dec, 2010-March, 2011). The purpose of this round was to explore how reflective practice be implemented in the supervision process. The findings suggested that asking student teachers to write reflective journals after the post-observation stage yielded was effective, especially if the wring process were also scaffold with guiding questions, and their thinking were also trigged by watching their teaching clips.

The third round of problem analysis was conducted with 35 English-majored student teachers of the academic year 2011. They were the population group of this study. The purpose of this round was to explore their opinions towards 1) their computing and ICT skills, 2) reflective journal writing, 3) teacher supervision process, and 4) prospect blended learning supervision. The results obtained from questionnaire analysis suggested that 1) the population had very good computing and ICT skills; 2) they were aware of the benefit of reflective journal writing and also agreed that the writing process would be less complicated if some scaffold was provided; 3) they had indifferent opinion towards the supervision process; and 4) they had positive opinion towards the idea of developing blended learning supervision.

1.2 Solution design stage

This stage focused on designing blended learning supervision model and constructing research instruments based on the results elicited from the problem analysis and also from the literature review. The process and findings of this stage

were divided into 2 sections: the development of blended learning supervision model and the development of research instruments.

1.2.1 The development of blended learning supervision model

The model was developed based on the problem analysis and the synthesis of two theoretical bases, naming 1) sociocultural theory and 2) blended learning approach. After the rationales, components, and process of the model were designed, they were submitted to three experts for validation purpose.

1.2.2 The development of research instruments

To answer the research questions, three research instruments, including 1) reflective journal and reflective ability scoring rubrics, 2) classroom observation form, and 3) open-ended interview questions were constructed. Each was submitted to experts for validation purpose.

1.3 Pilot study stage

This stage was conducted with a group of English-majored student teachers teaching in the first semester teaching practicum of the academic year 2011 for one semester (May-August, 2011). The purpose of this stage was to examine the effectiveness of the model and the three research instruments constructed from the previous stage. Thus, any ineffective tools or process were revised and repilotted until acceptable results were yielded. In the end, several changes were made; including 1) Facebook was finally selected as online practicum group, and 2) reflective scoring rubrics and classroom observation form were revised to be more practical and specific.

1.4 Implementation stage

This stage was conducted with four English-majored student teachers teaching in a public coeducational school during the second semester teaching practicum of the academic year 2011 (Dec 6^{th} , 2011- April 24^{th} , 2010). The implementation lasted about 14 weeks. The implementation was divided into three

phases, including: 1) preparation phase, 2) data collection phase, and 3) follow up interview phase. Each student teacher was observed four times and was asked to write four reflective journals. However, the second observation and reflective journal were excluded due to the technical problem.

The findings of this stage were divided into three areas regarding the research questions.

1.4.1 RQ1: What are the components and process of blended learning supervision model?

The blended learning supervision model consisted of 4 model components and 3 supervision stages. The four components included 1) environment, 2) agents, 3) supervision activities, and 4) technologies.

First, the environment of blended learning supervision model was divided into two parts: online and face-to-face. By blending face-to-face supervision with benefits of online technologies, the limitation in terms of time and space was solved. Thus, student teachers and supervisor were provided with plenty of opportunity to communicate and share their experience either face-to-face or online. Based on the sociocultural theory, social interaction happened in both environment played an important role in improving student teachers' teaching practice and thinking ability.

Second, agents in the blended learning supervision model referred to supervisor and student teachers. Both parties assumed different roles and responsibilities in face-to-face and online supervision.

Third, supervision activities implemented in the blended learning supervision model could be divided into three types: 1) activities performed by student teachers and supervisor; 2) activities performed by supervisor; and 3) activities performed by student teachers. Firstly, the activities performed by student teachers and supervisor referred to their social interactions, i.e. scaffolding, giving feedback, negotiation of idea happened at the pre-and post-observation stage. Secondly, the activities performed by supervisor, mostly, referred to activities happened during the observation stage. They included observing classroom, recording data, and assessing

student teachers' performance. Lastly, the activities performed by student teacher referred to reflective journaling that they did at the post-observation stage.

Lastly, blended learning supervision model employed several technologies such as social networking website, video-sharing websites, synchronous and asynchronous tools to provide communication channels and also community of practice where student teachers and supervisor to interact.

Regarding the three supervision stages, they included 1) pre-observation, 2) observation, and 3) post-observation. The pre-observation stage was situated online. It was where student teachers and supervisor to exchange their ideas on lesson plans.

The observation stage was conducted face-to-face within a real classroom context. In this stage, the supervisor observed and assessed student teachers' performance as well as recorded classroom evidence which would serve as input for the next stage.

Lastly, the post-observation stage was conducted in face-to-face and online environment. Regarding the face-to-face section, it was conducted immediately after the observation stage. This was when the supervisor provided immediate feedback on student teachers' teaching practice. Constructive dialogue between the two agents was also visible. Regarding the online part, it was when student teachers wrote their reflective journals based on the scaffolds received and also on their own teaching clips watched online. By mediating through these tools, student teachers were expected to develop reflective ability and also able to came up with new insight or new action to improve their teaching practice.

1.4.2 RQ2: To what extent does the blended learning supervision model enhance the English-majored student teachers' reflective ability and teaching performance?

The findings on student teachers' the improvement in terms of reflective ability and teaching performance was presented below:

1. In general, the reflective ability mean score of all four student teachers indicated that they remained at the descriptive reflection (levle2) throughout the study. However, there were two student teachers naming Nate and Fiona whose reflective ability increased one level, and reached the pedagogical reflection (level3). Reflective journals of Nate and Fiona contained elaborated details about their classroom challenges. They were able to identify the cause of the challenges through multiple perspectives, identify the belief or idea that support their decision, identify new insight gained from the reflection, and were able to propose practical plan for the next classroom.

The components of blended learning supervision model that helped shaping their reflective ability were 1) face-to-face scaffolding with supervisor and 2) online teaching clips. The researcher found evidence in Nate's and Fiona's journals which indicated that they attempted to make connection between the input received from the supervisor with the input experienced or watched from their own teaching. Based on the sociocultural theory, the connection between the expert's concept and the experiential concept enabled both student teachers to change in their concept and practice about teaching. In this study, the concepts that Nate and Fiona reformulated were about 1) English teacher's responsibility and 2) the difference between plan and classroom reality.

2. Referring to student teachers' improvement in terms of teaching performance, it was obvious that the teaching performance mean score of all student teachers indicated that their level of teaching performance increased from level 2 to level 4. The individual findings also suggested similar result. Stella and Nate improved from level 2 to level 4 while Fiona and Gina improved from level 2 to level3. The improvement suggested that student teachers were able to show better performance in the lesson planning domain, lesson presentation domain, and lesson assessment domain.

The components of blended learning supervision that helped improving student teachers' teaching performance were 1) online scaffoldings on their lesson plans, 2) face-to-face scaffolding on their teaching performance, and 3) self-

reflection. The researcher found connection between these three components when examining student teachers' teaching clips, their reflective journals, and supervisor's feedback. The feedback that the supervisor used consisted of five types: 1) questioning, 2) describing, 3) assessing, 4) suggesting, and 5) explicating. Through the mediation with supervisor, with self, and with tools, student teachers demonstrated changes three areas, including 1) change in lesson planning, 2) change in the use of target language in class, and 3) change in activity.

1.4.3 RQ3: What are the English-majored student teachers' and the supervisor's opinions towards the model?

Both student teachers and supervisor expressed positive opinions towards the blended learning supervision model. Regarding the student teachers, they gave opinions on the technology aspect, reflection aspect, and interaction aspect. They reported that the technology increased their sense of support. When it was combining with reflection, the technology promoted their self-observation, helped them noticing things about their teaching, and helped them focusing on multiple aspects of classroom. Regarding the reflection aspect, they agreed that reflection was an intellectual too that promoted their critical thinking and professional development. However, the reflection would be more helpful if more variety of reflective strategies were provided. In terms of interaction aspect, they reported that the scaffold helped lessening their cognitive overload as well as helped affirming their teaching hypothesis.

Regarding the supervisor's side, she expressed her opinions on technology aspect, supervisor's role, student teachers' role, interaction aspect, and blended learning supervision process. Referring to technology aspect, she stated that when combining reflection with technology, the technology-enhanced reflection could serve as a learning resource for community practice. The technology such as online communication tools and social media promoted real-time assistance and promoted her understanding about student teachers. When considering about her role as supervisor, the supervisor stated that assuming multiple roles helped facilitating

student teachers to achieve expected practicum outcome. Student teachers, in her opinion, were risk takers wanting to try new ways of teaching. Scaffold, in her point of view, was very beneficial if it was responsive and appropriate to individual student teacher's understanding and teaching ability. Lastly, she asserted that blended learning supervision process helped activating new perception about supervision.

Part2: Discussion

The discussion of this study was presented in three main points according to the research questions and research findings.

2.1 The components and process of blended learning supervision model promoted student teachers' learning to teach

The blended learning supervision model consisted of 4 components and 3 supervision stages. The four components included: 1) environment, 2) agents, 3) supervision activities, and 4) technologies. The three supervision stages included: 1) pre-observation stage, 2) observation stage, and 3) post-observation stage.

The components of blended learning supervision model echoed the principles of sociocultural theory which stressed that individual's learning could not happen in isolation, but through interactions with people and other artifacts in social context (Lantolf, 2000).

2.1.1 Environment

Environment which was the first component indicated that the blended learning supervision model took the context where student teachers worked into consideration. It believed that interactions or activities that happened in face-to-face environment, i.e. in school and classroom context and online environment i.e. online practicum group context played an important part in creating student teachers' teaching repertoire. They influenced how student teachers think, teach, and understand themselves as well as understand their students.

This idea aligned with the study of Lantolf and Thorne (2006) and Hammond and Gibbons (2005) who argued that the educational, and cultural context of learning

such as curriculum and school's expectation served as macro level scaffolding. Engin (2014) also affirmed that student teachers constructed their teaching knowledge based on the influence of the notion of 'good' teaching and the 'right' way to teach which were operated differently across educational context.

2.1.2 Agents

Agents which were the next component indicated that blended learning supervision model concerned about the balance of power between student teachers and the supervisor. The interview from the supervisor suggested that student teachers participating in the blended learning supervision model were not passive agent, but rather active thinkers and decision makers. She also stressed that her role as supervisor in the blended learning supervision model was different from the traditional one. She took several supportive roles and did not confine herself as 'expert' who student teachers relied on to 'tell them the answer'. It was student teachers who seek answer by themselves.

This resembled what Bailey (2006) called 'power-sharing process' which student teachers took active role working collaboratively with the supervisor (Charlies et al., 2004; Fahim & Haghani, 2012).

2.1.3 Supervision activities

Next component was supervision activities. Different types of supervision activities proposed in the model indicated different types of mediation. In blended learning supervision, student teachers had chances to make sense of their teaching and able to regulate their teaching concepts and practice based on two types of mediation: 1) the face-to-face and online dialogic mediation with supervisor, and 2) the tool-mediation, i.e. watching teaching clips and writing reflective journal.

This echoed one of Vygotsky's principles related to the notion of scientific concept and every day concept. The scientific concept was gained through formal instruction and professional discourse with experts while the everyday concept was gained through lived and practical classroom experience (J. Wertsch, 1985). The interplay between these two enhanced student teachers' understanding about their lived teaching experience (Bakhurst, 2007; Johnson, 2009).

2.1.4 Technologies

The last component in the blended learning supervision model was technologies. In this model, technologies such as Facebook, e-mail, and teaching clips served as tools to facilitate interaction between student teachers and supervisor, student teachers and their friends, as well as interaction with themselves. Based on sociocultural theory, initial understanding can be developed into a full understanding through interaction with the right person (Carpendale & Lewis, 2004). Thus, implementing the online technologies in supervision was not only maximizing social interactions but also increasing opportunity for student teachers to learn about teaching.

This idea supported the results from the previous literature. Goktalay (2015) discovered that Facebook was an effective tool for student teachers and supervisor to communicate and share information. Similarly to Single and Muller (2001) who also found that integrating online technologies tools with traditional supervision helped supporting relationships among student teachers and supervisor. Also, Kopcha (2011) found that although receiving fewer face-to-face observation, student teachers in the blended supervision group could still outperformed student teachers in the traditional supervision group due to more access to feedback via technologies.

2.1.5 Supervision stages

The three supervision stages offered opportunities for constructive dialogic interactions to occur. Additionally, it could not be denied that the four components were interwoven within each supervision stage.

At the pre-and post-observation stage, student teachers acquire new insights, redefined their prior teaching concepts, and brainstorming via face-to-face and online spoken/written dialogue with the supervisor. Within each discussion, student teachers were given chances to communicate their current understanding and idea regarding a particular teaching practice, and also opened up opportunities for explanation and clarification on the concept that needed improvement. Regarding the perspective of sociocultural theory, this concept aligned with the concept of 'externalize' or to

make one's own current understanding explicit (Johnson, 2009). This dialogue led to teacher change in the end (Gebhard, 1990; Mann, 2005).

Additionally, at the post-observation stage, student teachers gained understanding about their own teaching practice through the self-reflection. Besides talking with the supervisor, writing reflective journal was another mediational tools that allowed student teacher to reexamine their teaching practice, to make connection between the feedbacks given by the supervisor with their everyday concept, and finally to regulate their own understandings and practice. This concept resonated with idea proposed by Johnson and Golombek (2011) that reflective journal served as mediational tool for externalization, verbalization, and systematic examination that helped fostering student teachers professional development.

At the observation stage, this was the opportunity for student teachers to implement their plans in practice. Additionally, observation is the time when the supervisor could observe and analyze areas of classroom teaching which was effective and less effective in order to help student teachers improve.

2.2 Effectiveness of the blended learning supervision model on Englishmajored student teachers' reflective ability and teaching performance

2.2.1 Effectiveness of the blended learning supervision model on Englishmajored student teachers' reflective ability

The discussion was divided into two sections: 1) the effectiveness of the model towards reflective practice process, and 2) the effectiveness of the model towards reflective ability.

1. Effectiveness of the blended learning supervision model on student teachers' reflective practice process

In the process of reflective journal writing, student teachers were asked to revisit their classroom situations in order to reexamine and to reconstruct their teaching concept and teaching practice. The findings in this study indicated that the reflection of student teachers, especially of Nate and Fiona was influenced by 1)

mediation on face-to-face scaffolding on teaching performance, and 2) mediation on their teaching clips online. The evidence from their journal suggested that these two student teachers attempted to connect the concept received from the supervisor with the concept observed from their teaching clips in order to come up with two new insight: 1) insight about themselves as English language teacher, and 2) insight about mismatch between reality and planning.

The finding suggested the attempt that Nate and Fiona connected the scaffold received from the supervisor with the what they observed from the teaching clips mirrored the concept of internalization proposed by several sociocultural researchers such as Lantolf and Thorne (2006), Johnson (2009), and J. Wertsch (1985). The two insights gained from the internalization process suggested the change in their awareness about their role as teacher and also awareness of their teaching practice. Regarding the change in awareness about teacher-self, this finding aligned with findings from several studies. Freese (2006) found that after engaging in reflective writing for two years, his student teacher transformed his belief and commitment as a teacher from a close-minded and blaming teacher to be more understanding person. Similarly, Cattley (2007) asked her student teachers to keep reflective journals for eight weeks. The study revealed that her student teachers gained more understanding towards their self as teachers.

In terms of change in the awareness of teaching performance, Malatji and Wadesango (2014) revealed that engaging in self-reflection enabled their student teachers to identify their ineffective teaching behaviors. A.R. Freese (1999) agreed that asking their student teachers to write reflective journals transformed his student teachers to be more thoughtful and allowed them to identify the gaps in their less on planning.

2. Effectiveness of the blended learning supervision model on student teachers' reflective ability

Although blended learning supervision provided different types of mediation either human mediation and tool mediation, the finding on reflective ability improvement revealed that only Nate and Fiona whose reflective ability increased

from level 2, descriptive reflection to level 3, pedagogical reflection. In contrast, reflective ability of Stella and Gina remained at level 2, descriptive reflection throughout the study. Interestingly, the main focus of all four student teachers was on technical reflection, such as teaching tasks, classroom management, and lesson planning. Fuller (1969) and Farrell (1999) agreed that student teachers usually concern mostly about teaching teachniques. Furthermore, they had tendency to percieve the situation entirely based on their point of view (Pramounsinchai, 2005).

The reason why no significant improvement in student teachers' reflective ability was found might refer to the fact found during this problem analysis that student teachers had minimal chance to practice reflection prior to this study. Thus, they demonstrated superficial reflection even though writing aids such as guiding questions and teaching clips were provided. This findings corresponded with El-Dib (2007) whose student teachers' reflective ability remained at low to low-medium level because they were inexperienced with writing reflection. Also, Ho and Richards (1993) found no significant impact on their student teachers' reflective ability due to the short time allowance for student teachers to practice reflective journal writing.

2.2.2 Effectiveness of blended learning supervision model on English-majored student teachers' teaching performance

The discussion was also divided into two sections. The first section discussed the finding on the effectiveness of the blended learning supervision model on student teachers' process of change in teaching performance. The other section discussed the findings on the effectiveness of the model on their teaching performance.

1. Effectiveness of blended learning supervision model on English-majored student teachers' process of change in teaching performance

The findings indicated that the process of change in the student teachers' teaching performance was influenced by three factors, including 1) online scaffolding on lesson plans, 2) face-to-face scaffolding on teaching performance, and 3) self-reflection. There were three domains of change found from the analysis of student

teachers' journals, their teaching clips, and the supervisor's feedbacks given at the pre-and post-observation stage. The three domains of change including 1) change in lesson planning 2) change in the use of target language in class, and 3) change in activity planning.

The analysis of student teachers' journals, their teaching clips, and supervisor's feedback indicated the interconnection among these three factors. This result shared similar viewpoint with Richards et al. (2001) who confirmed that the interaction either with other people or with oneself yielded positive influence on student teachers' change in teaching performance.

The dialogue or written scaffolding received prior to and after the teaching helped student teachers in this study to 'notice the gaps' (Schmidt, 2001) between what they inadequately knew or did not know and the potential. Boud (2000) and Taras (2005) also found that scaffolding was not only helped student teachers indicated the gaps in their teaching, it also provided student teachers understanding of how they could close those gaps.

On the other hand, the self-reflection served as another type of mediation which student teachers express what they thought and felt in words. It served as tool to record both the gaps identified and the proposed solutions. This idea aligned with the study of Bailey (1992) which indicated that reflecting on dissatisfactions in current teaching practice gave student teachers chances to explore the situation and hypothesize possible solution. Thus, assimilating the input received from the supervisor with the input from self-reflection in order to form a new ways of teaching again, mirrored the process of internalization (Johnson & Golombek, 2003b).

Regarding the change in teaching performance, they aligned with the findings found from A.R. Freese (1999) who reported that the transformation in student teachers' teaching often occurred in the lesson planning and teaching technique domain. Similarly to Mcalpine and Weston (2000) who affirmed that change in student teachers' practice often occurred in lesson planning and lesson teaching domain.

2. Effectiveness of blended learning supervision model on English-majored student teachers' teaching performance.

The findings in the student teachers' teaching performance revealed that their performance increased one to two levels at the end of this study. The evidence from the student teachers' classroom observation suggested that the potential factor that initiated this improvement was the various types of feedback given by the supervisor.

The blended learning supervision model allowed for the supervisor to do her job more effectively in both face-to-face and online platform. Through the integration between face-to-face supervision activities, such as observing interaction between the student teachers and their class, exploring the classroom environment, and face-to-face communication with the online supervision activities, such as watching student teachers' teaching clips and online interaction in Facebook practicum group, they helped improving the quality of supervisor's feedback to be more focused, specific, and appropriate for each student teachers' need.

The fact that the supervisor used various types of immediate feedback to promote student teachers' teaching performance aligned with the finding of Scheeler et al. (2004) who found that using combination of feedback had direct influence on student teachers' instructional improvement. Also, Tschannen-Moran et al. (1998), agreed that specific and goal-driven feedback from supervisor were a good information resource for student teachers to improve their teaching skills and performance.

2.3 Opinions of English-majored student teachers' and the supervisor's towards the blended learning supervision model

The findings from the interview of student teachers and supervisor indicated that both had positive opinions towards the blended learning supervision model on three aspects: 1) the opinion towards technology used in the model, 2) the opinion towards the interaction between student teachers and supervisor, and 3) the opinion towards the role of student teachers and supervisor.

Regarding the opinion towards technologies used in the model, integrating the face-to-face supervision with online platform, student teachers and supervisor were able to communicate more often. The student teachers could contact the supervisor and ask for help or suggestion anytime. Furthermore, the use of social media helped increasing the sense of support and promoting better understanding among student teachers and supervisor in the supervision process.

This finding aligned with previous literature which stated that the use of blended learning helped reducing time and space commitment, lessening stressful environment, and giving students easy access (Ruthven-Stuart, 2003; Wingard, 2004). Furthermore, blended learning also promoted interaction between the supervisor and student teachers since it provided non-face-threatening environment that student teachers felt more comfortable to ask questions (Pardo-Gonzalez, 2013). Roavi and Jordan (2004) and of Yu et al. (2010) confirmed that the use of Facebook helped strengthening strong socialization and establishing the sense of support between users.

The finding also revealed that online technologies helped facilitating student teachers' reflective journaling process. The student teachers mentioned that the teaching clips helped promoting their self-observation. They were able to expand their observation to focus on multiple aspects of classroom. This finding echoed the benefits of using technology-enhanced reflection mentioned by several research scholars. Dymond and Bentz (2006) indicated that the use of digital video enhanced their student teachers' ability to observe and discuss their teaching. Beck et al. (2002) supported that the use of teaching video cases increased student teachers' ability to identify, interpret, and analyze their own teaching practice. Through video, student teachers gained new opportunities to investigate their practice, to gain better understanding of what was happening in their classroom, to identify what was important in their teaching practice (Sherin, 2000).

Referring to the finding on opinions towards interaction, the supervision activities provided in blended learning supervision encouraged mediation between the supervisor and student teachers. As a result, student teachers reported that

scaffolding received either from pre-or post-observation stage helped lessening their cognitive overload and also helped affirming their teaching hypothesis. The finding reflected the notion of scaffolding in sociocultural theory perspective that it was the goal-oriented means given to help reducing student teachers' cognitive load (Johnson, 2009), and provide support to help them achieving the challenging task (Wilson & Devereux, 2014).

Regarding the opinion towards the role of student teachers and supervisor, blended learning supervision encouraged balance of power between the supervisor and student teachers. Supervision activities and online technologies such as Facebook were implemented with an aim to establish positive relationship among them. Thus, the roles of supervisor and student teachers were very versatile. The opinion expressed by the supervisor reflected on this idea. She mentioned that she assumed different roles in helping the student teachers to achieve their practicum goal, such as being facilitator, guide, critical peer, and mentor. On the other hand, the student teachers also took very active roles in improving their teaching. Some even tried to maximize themselves as English teachers by exploring new teaching strategies without fear of failure.

This finding corroborated the findings in alternative teacher supervision study. Sewall (2009) and Weiss and Weiss (2001) suggested that supervision process should no longer be perceived as hierarchical process since it inhibited student teachers' trust and transparency. Zorga (1997) agreed that supervision process should be perceived as learning process where student teachers acquired new insights while they were learning to teach and form their teacher identity. The multiple roles of supervisor and student teachers created balance of power (Bailey, 2006) which promoted collaborative, non-threatening, and safe environment for student teachers to learn and accommodate new idea (Hyland & Loil, 2006; Yuksel, 2011).

Part3: Limitations, recommendations, implications, and significance of the study

3.1 Limitations

- 3.1.1 The findings of this study, especially the development of reflective ability as well as the development of teaching performance were affected from various external factors such as participants' previous teaching experience, their personal teaching belief, as well as the school context. These factors were beyond control.
- 3.1.2 This study data collection process was also affected by the severed flood occurred towards the end of 2011. Several schools in Bangkok including the one being the setting of this study decided to postpone the beginning of their second semester for about a month. This caused a major change in both the school and this study plan.

3.2 Recommendations and implications

- 3.2.1 There should be more variety in reflection methods. Regarding the interview with a student teacher, Nate suggested that other modes of communication should be used instead of adhering only to journal writing since different person has different communication preference. Some could reflect better through writing while others might prefer having conversation with peers. In this case, the suggested online communication tool would be Skype.
- 3.2.2 Regarding the researcher's experience towards student teachers' interactions, she found that their participation decreased overtime. They participated less towards the end of the semester due to the assigned workload and exhaustion. To increase interactions of student teachers, it is important to raise their awareness on the importance of their professional development. Thus, student teachers should be encouraged to diligently reflect and share their teaching experience with the online community. Additionally, showing more mental support would help student teachers overcoming their burnout.
- 3.2.3 To create more opportunity for student teachers' professional development, the community of practice between the practicum triad, including

student teacher, university supervisor, and cooperating teacher should be established. Intimate link between on-campus, online, and in-school will help strengthening the relationship among the triad. For example, student teachers may ask to share a short video clip focusing either effective or ineffective aspect of their teaching online once a month. Then, the supervisor, cooperating teacher, and peers have online discussion regarding the clip to make improvement of the situation. This enables student teachers to engage with different perspectives.

3.3 Significance of the study

- 3.3.1 Regarding the theoretical aspect, the rationales, components and supervision process presented within the blended learning supervision model bring a light to how the process of teacher supervision can be conceived regarding the integrated perspectives between sociocultural theory and blended learning approach. It also serves as a blueprint for those who interested in empowering the supervision of pre-service and in-service teacher to develop their studies.
- 3.3.2 Regarding the pedagogy of blended learning supervision model, the findings of this study suggested that the implication of blended learning supervision model can overcome the problems found in traditional face-to-face supervision. For example, the use of online technologies helps increasing interaction between supervisor and student teachers. The increased communication promotes trust and transparency which in turn lead to shift in student teachers' negative attitude about the supervision process. Another example lies in the benefit of using technology-enhanced reflection. Student teachers reported gaining new aspect from observing their own teaching clips. This suggests that the shift in role of the student teachers. They are no longer passive followers who totally rely on supervisor, but become active learners and knowledge constructors.

The implication of blended learning supervision model can promote diverse teaching experience. In the future, there is a possibility that pre-service teacher education would seek for partnership with school in the rural areas in order to give their student teachers' diverse teaching experiences. The flexibility of the blend

between face-to-face and online supervision could overcome the time and geographical limitation.

3.3.3 Last but not least, this study addresses the important of research and design approach which is considered a practical approach in proposing practical improvement to any existing problem. Through each stage of R&D approach, the blended learning supervision model and research tools were constructed, validated, and implemented in order to suggest a practical solution to improve the teacher supervision process.



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Appendix A

Questionnaire used for collecting opinions of the population at problem analysis round3

1. Construction and validation process

The researcher conducted a survey to examine the opinion of population group on four topics including 1) opinions on their computing and ICT skills; 2) opinions on experience with reflective journal writing; 3) opinions on experience with current supervision process; and 4) opinions on the prospect blended learning supervision. The data drawn from this survey was used as a triangulation on the gaps identified as well as used as guidance for designing the blended learning supervision model.

The survey was constructed on the basis of 5-point Likert scale ranging from 1 to 5. It was also a mix between close-ended and open-ended questions. There were a total of 51 items. The content was divided into five parts which were 1) personal information, 2) basic computing and ICT skill, 3) opinions on experience with reflective journal writing, 4) opinions on experience with current supervision process, and 5) opinions on the prospect blended learning supervision.

The survey was sent to three experts for validation purpose. All experts were the alumni of this Thai public university, had prior experience with teaching practicum and supervision process, and also had experience in teaching English for more than 3 years. The IOC form was used to ensure the relevancy of the content towards the objective of each item. The result yielded that all items received scores ranged from 0.60-1.0 which indicated that they were appropriate due to Kanjanawasee (2005). Lastly, the survey was tried out with five English-majored student teachers for language justification purpose.

After administering the survey with 35 English-majored student teachers of the academic year 2011 after they had already accomplished their first semester teaching practicum. Descriptive statistics such as frequency and mean score were used to analyze quantitative data while content analysis was employed to analyze

qualitative data collected. The criterion suggested by Srisa-ard (2000) was used to interpret quantitative data as illustrated below:

1.00-1.50 = Strongly disagree

1.51-2.50 = Disagree

2.51-3.50 = Neutral

3.51-4.50 = Agree

4.51-5.00 = Strongly agree

2. Findings of the survey

The findings obtained were divided into five parts in consonance with the survey outline. The five parts included 1) Student teachers' personal information; 2) their basic computing and ICT skills; 3) their opinions on reflective journal writing experience; 4) opinions on experience with current supervision process; and 5) opinions on the prospect blended learning supervision.

2. 1Student teachers' personal information

Results in this section focused on personal information of the student teachers, including their gender, age range, academic year, major of study, and Internet usage behavior.

Table1: Personal information of the student teachers

Questionnaire Content	Frequencies	Percentage
1.Gender		
Male	7	20
Female	28	80
2. Age		
22 years	14	40
23 years	14	40
24 years	7	20
3.Academic of entering the university		
2005	0	0
2006	0	0
2007	35	100
4. Major of study		

Advanced English	12	34.3						
English and educational technology	7	20						
English and special education	1	2.9						
English and social studies	2	5.7						
English and French	2	5.7						
English and counseling psychology and guidance	3	8.6						
English and non-formal education	4	11.4						
English and elementary education	4	11.4						
5. Do you have access to the Internet during teaching practicum?								
Yes	35	100						
No	0	0						
6. How often do you connect to the Internet?								
Everyday	30	85.7						
More than once a week	4	11.4						
Once a week	1	2.9						
Once a month	0	0						
7. How many hours do you spend time online daily?								
1-2 weeks	3	8.6						
2-3 hours	9	25.7						
3-4 hours	8	22.9						
More than 4 hours	15	42.9						

Regarding the result from table above, the male student teachers were 20% while the female group was 80%. Out of 35 student teachers, most of them were in the age range of 22 and 23 years old while only 20% of them were in their 24's. All entered this university in the first semester of academic year 2007; on the other hand, they were in their fifth year when the study was implemented. Most of them or 34.3% took English as their major of study whereas the rest chose to pair English with other majors such as English and educational technology, English and nonformal education, English and elementary education, English and counseling psychology and guidance, English and social studies, English and French, and English and special education respectively.

According to the result, it was very undeniable that technology has been closely interwoven into the respondents' lives as they all had access to the Internet

during the teaching practicum either via mobile phones or computers; furthermore, 85.7% adopted behavior of using Internet daily and 42.9% agreed that they spent more than 4 hours a day online. This result supported the possibility of involving technology or social media into teaching practicum and teacher supervisory process as the result affirmed that student teachers were accessible to the Internet.

2.2 Student teachers' basic computing and ICT skills

It is necessary to access the student teachers' basic computing and ICT skills before designing or implementing any technology tools; therefore, this section reported the result regarding a range of their fundamental skills such as using computing programs or using different online communication tools.

Table2: Student teachers' basic computing and ICT skills

		Lev	els of s	kills				
Basic Computing and ICT skills	Poor/ No capability	Fair	Poop	Very good	Excellent	×	SD	Interpretations
8. Word processing	A 0	3	14	9	9	3.69	0.96	Very good skill level
9. Presentation tools	0	2	13	12	8	3.74	0.87	Very good skill level
10. E-mailing	0	0	13	14	8	3.86	0.77	Very good skill level
11. Video editing/ movie making programs	2	6	12	11	4	3.26	1.06	Good skill level
12. Chatting platforms	0	1	10	14	10	3.94	0.84	Very good skill level
13. Uploading and downloading VDO clips, photos, document files, audio files on the Internet	0	0	15	9	11	3.89	0.87	Very good skill level

14. Using social networking	0	1	12	12	10	3.89	0.87	Very good skill
websites								level
15. Moderating and	0	4	12	12	7	3.63	0.94	Very good skill
participating in discussion								level
group platforms								
Total					3.74	0.92	Very good	

The results revealed that the student teachers generally possessed very good computing and ICT skills ($\bar{x}=3.74$). When examining the result in each item closely, the researcher found that they claimed of having very good skill level in almost every skill types, including skill in using chatting platform (item12), skill in uploading and downloading files on the Internet (item13), skill in using social networking websites (item14), skill in using e-mail (item10), skill in using presentation tools (item9), skill in using word processing tool (item8), and skill in moderating and participating in discussion group (item15). However, they rated their skill in using video editing and movie making program (item 22) differently. The skill was classified only at good skill level ($\bar{x}=3.26$) and it was the item that yielded the greatest variation of answers among the set (S.D. =1.06).

The first four computing and ICT skills that received the highest mean score were skill in using chatting platforms, skill in uploading and downloading files on the Internet, skill in using social networking websites, and skill in using e-mail. These were considered fundamental skills used for exchanging information in today Web 2.0 tools such as social networking sites, wikis, blogs, video sharing sites, and much more. This result echoed their Internet behavior presented earlier. It explained the reason why they were confident with these four types of skills resulted from the fact that they spent more than four hours surfing online websites daily.

On the other hand, the reason why item number 11; skill in using video editing and movie making programs, obviously received least mean score and yielded dispersion of answers because the skill was considered a 'more advanced' computing skill type since it required specific program which might not be used daily

and also needed practice and passion; therefore, some respondents might not be equipped with this skill.

2.3 Student teachers' opinions on experience with reflective journal writing

The items in number 16-26 were designed to elicit the student teachers' opinion about their experience with reflective writing journal. The results were illustrated in the table below.

Table3: Student teachers' opinions on experience with reflective journal writing

		Leve	ls of op	oinion				
Experience with reflective writing	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	×	SD	Interpretations
16. The faculty provides me with	A Second	()						
enough content about what			2	(6)				Neutral
reflection is and how to write	1	3	24	6	1	3.09	0.70	
reflective journals.								
17. I have chances to practice	เกรถ	เมหา	วทยา	เลย				
writing reflective journals before	1 (3	22	9	0	3.11	0.68	Neutral
teaching in teaching practicums.								
18. I always keep my reflective	0	5	19	11	0	3.17	0.66	Neutral
journal after teaching.						5.11	0.00	Nedtrac
19. Sharing reflective journal with	2	6	21	6	0			
friends/supervisors embarrasses						2.89	0.76	Disagree
me.								
20. Feedback received from friends	1	7	21	6	0	2.91	0.70	Disagrae
or supervisor would discourage me.						2.91	0.70	Disagree
21. Having guiding questions help								
me engaging with the situation I'm	0	2	14	10	9	3.74	0.92	Agree
reflecting about.								
22. Having examples of reflective	0	2	14	14	5	3.63	0.81	Agree
journals facilitates my writing.						رن.ر	0.01	Agi ee

23. Writing reflective journal allows								
me to acknowledge strength and	1	0	16	13	5	3.60	0.85	Agree
weakness of my teaching.								
24. Writing reflective journal is a	1	2	17	15	0	3.31	0.72	Neutral
time consuming process.	1		11	13	0	3.31	0.12	ricuttat
25. Writing reflective journal	1	0	15	15	4	3.60	0.81	Agree
enhances my ability to reflect.	1	O	13	13	†	5.00	0.01	Agree
26. Writing reflective journal leads								
me to personal growth, teaching	2	1	13	14	5	3.54	0.98	Agree
professional growth and change in	2	1	13	14	J	5.54	0.90	Agree
teaching performance.								
Total						3.33	0.83	Neutral

The result indicated that student teachers had neutral opinion towards the reflective journal writing ($\bar{x}=3.33$). They reported having indifferent opinions about the degree in which the faculty had prepared them for reflection concerning the knowledge about reflection and the writing process (item 16, $\bar{x}=3.09$) and also the hands-on experience on this topic (item17, $\bar{x}=3.11$). Next, they also reported uncommitted opinion on their personal use of reflective journal during teaching practicum (item18, $\bar{x}=3.17$).

As for the strategies employed to facilitate reflective journal writing, student teachers disagreed that sharing reflective journals with the third party such as peers and supervisors for feedback would embarrass and discouraged them from keeping up the process (item 19, $\bar{x} = 2.89$, item 20, $\bar{x} = 2.91$). Furthermore, they agreed that introducing some tools such as guiding questions and examples of reflection helped facilitating and engaging them into the writing process (item 21, $\bar{x} = 3.74$, item 22, $\bar{x} = 3.63$).

In terms of student teachers' opinion on benefits gained from reflective journal writing, they agreed that the process helped them to acknowledge their strengths and weaknesses in teaching, enhances their ability to reflect, and also lead them to professional growth (item23, $\bar{x} = 3.60$; item25, $\bar{x} = 3.60$, item26, $\bar{x} = 3.54$),

but they had neutral opinion on the challenging issue of the reflective writing process that it was a time consuming process (item24, $\bar{x} = 3.31$).

Within this section there was another questionnaire item (item27) asking student teachers about formats that they normally used for keeping their reflection.

Table4: Common reflective formats used by the respondents

<u>process</u>

Reflective formats	Frequencies	Percentage
Jotting down as bulletins	21	60
Writing in paragraphs	13	37
Recording as audio files	0	0
Others	1	3
Total	35	100

The most common reflective formats exploited was jotting down brief information in bulletins (60%), writing reflection in paragraphs (37%), and the other format mentioned by a respondent was using question form format (3%).

2.4 Student teachers' opinions on experience with current supervision

Item number 28 was dedicated to elicit the respondents' experience about challenges found during teaching practicum. Out of 35 respondents, there were 16 people who provided answers. After using content analysis to interpret the result, the answers were categorized into 2 themes naming classroom management and lesson planning. In respect to the classroom management theme, the respondents mentioned about 'students' lack of attention'. In terms of the lesson planning theme, the respondents' challenges mentioned were "lack of time" and "the mixed ability classroom".

As for item number 29 to item number 41, the respondents' opinions about the supervision process administered by the Faculty of Education were extracted. The results were illustrated in the following table.

Table 5: Student teachers' opinions on experience with current supervision process

		Leve	ls of op	oinion						
Experience with Faculty of Education supervisory process	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	×	SD	Interpretations		
Pre-observation Pre-observation										
29. When submitting lesson plans, I always receive comments from the supervisor.	2	2	17	13	1	3.26	0.85	Neutral		
30. The comments are useful.	2	2	16	11	4	3.37	0.97	Neutral		
31. When I have problem with planning the lesson, I prefer seeking advice from friends and other resources such as Internet than consulting the problems with my supervisor.	2	0	15	12	6	3.57	0.98	Agree		
32. I prefer having face-to-face lesson plan discussion with the supervisor than submitting it via e-mail	0	7	18	6	4	3.20	0.90	Neutral		
	0	bservat	ion			L				
33. My supervisor completes classroom observations according to the Faculty requirements.	1 1	0	17	13	4	3.54	0.82	Agree		
34. Being observed is seen as a stressful and judgmental process rather than a supportive and developmental one.	0	5	17	10	3	3.31	0.83	Neutral		
	Post	t-obser\	/ation							
35. The conference is delivered in a friendly atmosphere.	1	1	20	8	5	3.43	0.88	Neutral		
36. Immediate feedback concerning my teaching is always given.	1	3	15	11	5	3.46	0.95	Neutral		
37. My supervisor dominates the conversation.	2	2	21	9	1	3.14	0.81	Neutral		

38. The conference is a bit rush.	0	1	21	10	3	3.43	0.70	Neutral
39. During the conference, I am	1	0	23	8	3	3.34	0.77	Neutral
allowed to reflect on my teaching.	1	0	23	O	J	5.54	0.11	Neutrat
40. Apart from the official classroom								
observation, I keep in touch with my	2	0	24	8	1	3.23	0.60	Neutral
supervisor to report my progress.								
41. My classroom instruction is								
improved as a result of the	1	3	14	15	2	3.40	0.85	Neutral
supervision.								
Total						3.36	0.84	Neutral

Student teachers expressed neither positive nor negative opinions towards the supervisory process administered by the Faculty of Education ($\bar{x}=3.36$). When asking about their lesson planning experience had during the pre-observation stage, they had indifferent opinions about the consistency of lesson plan feedbacks received from the supervisor (item29, $\bar{x}=3.26$), the helpfulness of the feedback (item30, $\bar{x}=3.37$); and they also did not decide which medium between face-to-face and e-mail that they preferred to employ for lesson plan discussion (item32, $\bar{x}=3.20$). However, when mentioning about whom they usually asked for advice if encountering problems, they agreed that they relied on friends and online sources rather than consulting with their supervisors (item31, $\bar{x}=3.57$).

With regard to student teachers' opinions about the supervision process undergone during the observation stage, they agreed that the supervisors fulfilled the observation according to requirements given by the faculty (item33, $\bar{x} = 3.54$) although they had judgmental point of view on whether the supervision process was considered stressful or supportive (item34, $\bar{x} = 3.31$). When considering their answers on the experience during the post-observation stage, they expressed neutral point of view towards all items.

Regarding how the supervision was employed, the respondents did not certain whether it was delivered in a friendly atmosphere (item35, $\bar{x} = 3.43$) or in a rush manner (item38, $\bar{x} = 3.43$). It seemed that they were also uncertain even if supervisors always provide them with feedbacks (item36, $\bar{x} = 3.46$), speaking time was

given to them to reflect on their past teaching (item37, $\bar{x} = 3.14$, item39, $\bar{x} = 3.34$), or even to notice whether their teacher was improved as a result of supervisory process (item41, $\bar{x} = 3.40$). The result on item number 40 also indicated their neutral experience on keeping relationship with the supervisor outside the classroom observation context ($\bar{x} = 3.23$).

2.5 Student teachers' opinions about prospect blended learning

<u>supervision</u>

Within this section, student teachers were asked to provide their opinions on the Faculty of Education if it was incorporated with technologies and ICT. The results obtained were presented in the table below.

Table6: Student teachers' opinions about the development of blended learning supervision

		Level	s of op	inion				
Opinions about the development of blended learning supervision	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	x	SD	Interpretations
42. Enhance relationships between the supervisor and student teachers.	1	2	10	16	6	3.69	0.93	Agree
43. Promote communication between the supervisor and student teachers.	1	1	10	10	7	3.77	0.91	Agree
44. Provide evidence for student teachers' reflection.	1	0	12	17	5	3.71	0.83	Agree
45. Upset both student teachers and supervisor due to the technical problems.	1	11	13	9	1	2.94	0.91	Disagree
46. Promote community of learning among student teachers.	1	0	12	14	8	3.80	0.90	Agree

47. Improve student teachers'	1	0	11	20	3	3.69	0.76	Agree
teaching performance.	1	0	11	20	7	5.07	0.70	Agree
48. Overshadow the importance of	4	8	15	7	1	3.20	0.99	Neutral
face-to-face communication.	4	O	13	,	1	3.20	0.99	Neutrat
49. Overwhelm both student								
teachers and supervisors with extra	2	5	15	12	1	2.86	0.91	Neutral
work.								
Total						3.46	0.96	Neutral

The results showed student teachers' neutral opinion towards the idea of constructing the blended learning supervision ($\bar{x} = 3.46$); however when examining closely there were four aspects of the new type of supervision that they expressed positive opinion. They agreed that the blended learning supervision if developed would a tool that brings about several benefits such as fostering relationship between supervisors and student teachers (item42, $\bar{x} = 3.69$), promoting their communication (item 43, $\bar{x} = 3.77$), providing useful reflective evidence (item44, $\bar{x} =$ 3.71), promoting community of learning (item 46, \bar{x} = 3.80), and improving student teachers' teaching performance (item47, $\bar{x} = 3.69$). Regarding the challenging that might be resulted from this type of supervision, the respondents disagreed that technical problems caused by the blended learning supervision would disturb and discourage the supervisors and student teachers (item 45, $\bar{x} = 2.94$); however, they showed uncommitted point of view on item number 48 and 49 which discussed even if the blended learning supervision would overshadow the face-to-face communication and overwhelm both supervisors and student teachers with extra work ($\bar{x} = 3.20, \bar{x} = 2.86$)

Next, item number 50 was designed to elicit student teachers' suggestions on online tools that should be incorporated this new type of supervision; as a result, there were 3 respondents who provided answers. The tools suggested were Blackboard, Facebook, e-mail, and teaching videos.

The result of the last survey question (item 51) asking about the respondents' interest in participating in the blended learning supervision if it is developed

suggested that there were 33 respondents who thought that the idea was interesting (94.29%) while the other 2 respondents (5.71%) did not interest in this idea. A few respondents also provided their opinions on why they were interested in this type of supervision. The comment focused on the *'flexibility'* of this new type of supervision.

3. Summary of the survey results

In brief, results received from the survey revealed current circumstances in relation to three aspects: 1) student teachers' current experience with reflective practice; 2) their current experience with supervision process; and 3) their interest in developing blended learning supervision.

3.1 Current Experience with reflective practice

The results showed that the fifth-year student teachers of the academic year 2011had an intuitive awareness of how reflective practice contributed to their professional life although they had gained limited background knowledge on this topic during their four years of study in the Faculty of Education. The fact that they stated uncommitted opinion towards the practical usage of reflective journal writing during teaching practicum served as evidence that most of them did not genuinely reflect on their teaching so they did not actually have either positive or negative opinions to say about it. If the reflective writing was employed, the result stated that the most adopted format of reflective writing during teaching practicum was writing in bulletin points which also initiated their lack of practice concerning this topic since the bulletin point writing style has to be as concise as possible which differed from the reflective writing that has to be expressive and elaborated.

The researcher believed that if student teachers received more scaffold in this area, they have more systematic way to reflect about their teaching. With these pieces of information in mind, participants in this study had two weeks prior to the main study to practice reflective writing; explanation, assistance and examples of reflective journal were also given during the practice.

3.2 Current experience with supervision process

The results, again, revealed student teachers' neutral opinion towards their experience with all three stages of supervision process. Three possibilities could be inferred from this result. First was that student teachers had never carefully considered the supervisory process before so they were not able to give strong opinions regarding the process, and second possibility was that they avoided offending the faculty with strong opinions. The third possibility was that student teachers had fundamental belief that supervision was conducted mainly for evaluative purpose; therefore, they did not realize other opportunities that supervision process provided.

These gaps suggested a room for improvement in terms of interaction between student teachers and supervisor. Thus, when proposing the blended learning supervision, the researcher provided various communication channels such as e-mail and Facebook keep in touch as well as to give student teachers chances to express idea as well as receive scaffold without anxiety that they would be evaluated.

3.3 Student teachers' interest in developing blended learning supervision

The findings illustrated student teachers' readiness to participate in the blended learning supervision. The finding on basic computing and ICT skills suggested that the fifth-year student teachers of the academic year 2011 were equipped with very good expertise related to technology so they had potential to handle the online tools that were planned to be applied in the new type of supervision. Although their overall opinions towards the blended learning supervision was indicated as neutral, the fact that they agreed on all advantages of blended learning supervision showed their intuitive awareness towards how the blended learning supervision would contribute to the supervision process and their reflective practice during the practicum. It could be concluded according to the survey evidence that the fifth-year student teachers who were prospect participants in this study were

qualified to participate in the new type of supervision model in terms of skills and attitudes.



Appendix B

Examples of student teacher's reflective journal

Fiona's 1st Reflection

Please refer to your teaching clip. Think about problem(s) you faced in the class then uses these questions as guideline to write your reflection.

- 1. What is the description of your classroom challenge?
- 2. Why things happened this ways?
- 3. How did you solve that challenge?
- 4. How effective was your decision?
- 5. Why did you decide to solve the challenge that way?
- 6. How would you do things differently if the same challenge happens again?

ในการสอนที่มีการสังเกตการณ์ครั้งที่ 1 ของอาจารย์ หนูสอนบทอ่าน เรื่อง You look just like me ซึ่ง เลือกออกแบบการสอนโดยมีการสอนคำศัพท์ที่มีอยู่ในเรื่องก่อน เพื่อให้นักเรียนได้ใช้เป็นแนวทางในการทำกิจกรรม ต่อไป คือ การร่วมกันศึกษาบทอ่านในกลุ่มของตนเอง จากนั้นจึงให้นักเรียนได้ลองแต่งประโยคโดยใช้คำศัพท์ที่สอน ไปมาแต่งประโยคใหม่ ซึ่งนักเรียนสามารถศึกษารูปแบบประโยคจากบทอ่านที่นักเรียนอ่านได้

จากย่อหน้าข้างต้น นั่นคือบรรยากาศทางการเรียนที่หนูคาดหวังว่าจะเกิดขึ้นในวันนี้ และสภาพจริงที่ เกิดขึ้นในห้องนั้นพบว่า ในช่วงขั้นนำ และขั้นสอนคำศัพท์ดำเนินกิจกรรมไปได้อย่างราบรื่นสมกับที่คาดหมายไว้ แต่ เมื่อให้นักเรียนศึกษา และลองแต่งประโยค หนูพบว่านักเรียนในห้อง (ซึ่งถือเป็นห้องที่ค่อนข้างเก่ง) ที่สามารถแต่ง ประโยคโดยใช้รูปประโยคได้อย่างถูกต้องนั้นมีน้อยมาก เพราะช่วงที่ให้เขาทำงานหนูได้เดินสังเกตการทำงานของ นักเรียนไปด้วย นักเรียนมักจะตั้งคำถามคล้ายๆกันทุกกลุ่มว่า "อาจารย์ คำนู้นเขียนยัง ประโยคนี้ต้องแต่งยังไง แล้ว กลุ่มหนูเรียงประโยคถูกใหม" เป็นต้น และถึงแม้หนูจะแอบกระซิบไปบ้าง ผลก็คือ นักเรียนก็ยังเขียนประโยคไม่ ถูกต้อง และไม่ได้เขียนตามที่บอก คำถามที่เกิดขึ้นในใจคือ "มันเกิดอะไร้ (ต้องทำเสียงสูงด้วยนะคะ เพื่อเพิ่มอรรถรส ในการอ่าน ;-)) ถามแต่ไม่เขียนตามที่ตอบ ถามเพื่ออออออออ" >>> อันนี้ไร้สาระ <<< เอาใหม่ คำถามที่เกิดขึ้นคือ "ทำไมนักเรียนชั้นม.3มีทักษะในการเขียนภาษาอังกฤษค่อนข้างน่าเป็นห่วงเช่น นี้" เพราะเท่าที่หนูทราบคือ ใน ระดับประถมต้นเขาเน้นให้นักเรียนสามารถเขียนวลี หรือ ประโยคง่ายๆได้ ส่วนเมื่อขึ้นระดับมัธยมต้น นักเรียนต้องสามารถเขียนประโยคอย่างง่ายได้แล้ว แต่สิ่งที่เกิดขึ้นทำให้ รูสึกได้ว่าตัวหนูเองยังสอนนักเรียนไม่รู้ เรื่องหรืออย่างไร ทำไมนักเรียนจึงไม่เข้าใจ เพราะสิ่งที่บอกไปนั้นไม่ได้แสดง ให้เห็นบกระดานเลย

อย่างไรก็ตามสิ่งที่หนูได้เรียนรู้จากเหตุการณ์ดังกล่าวคือ ควรจัดกิจกรรมที่ส่งเสริมด้านการเขียนให้ นักเรียนมากขึ้น อาจเริ่มจากการเขียนแบบง่ายๆเป็นพื้นฐานก่อนก็ได้ เพื่อให้นักเรียนได้เกิดความเคยชิน และไม่รู้สึก ยากหรือกดดันตนเองจนเกินไป และหากเกิดเหตุการณ์ดังกล่าวขึ้นอีก หนูจะไม่เป็นผู้แก้ไขให้นักเรียนเองอย่างทันที แต่จะให้นักเรียนในห้องคนอื่นๆช่วยกันวิเคราะห์ว่าประโยคดังกล่าวถูกต้อง หรือไม่ เพราะอะไร เพื่อให้นักเรียนได้ เรียนรู้การคิดวิเคราะห์ และเป็นการนำสิ่งที่เรียนมาบูรณาการใช้จริงมากขึ้น



Appendix C
Reflective ability scoring rubrics

Reflection	Non-reflection	Descriptive	Pedagogical	Critical
stages	(Score =1)	reflection	reflection	reflection
		(Score =2)	(Score= 3)	(Score= 4)
	Teacher fails to	Teacher gives	Teacher	Teacher
	address the	general description	describes the	provides the
	challenging	of the classroom	overview of the	overview of the
	situation occurred	and addresses the	class and	class, addresses
1. Focus	in class, or if it is	challenging	addresses the	the challenging
What is the	mentioned, it	situation found	challenging	situation, and
description of	addresses the	without giving any	situation found	also supports
your classroom	blame on other	specific evidence to	with a scenario	the claim by
challenge	people or factors	support the claim.	from the class to	providing two or
	such as students		support the	more evidence
	and insufficient		claim.	from the class.
	time and			
	equipment.			
	Teacher shows	Teacher is able to	Teacher does	Teacher engages
	absolute no	identify the cause	not limit the	in deeper
	curiosity in	of the challenge;	cause of	analysis by
	identifying the	however, it is	challenge only	showing
2.	reason behind the	confined to specific	on the teaching	awareness of
Questionning	challenging	teaching tasks such	tasks but also	how factors
	situation, or if the	as planning, task	expands the	such as culture,
Why things	reason is	practice, or	scrutiny by	politic, and
happened this	identified, it just	classroom	considering	social issues
way?	shows teacher's	management which	possibilities	play a part in
	simplistic thoughts	are described from	drawn from	the cause of
	without attempt to	teacher's angle	students'	classroom
	really understand	only.	viewpoints.	challenge.
	it.			
3.	Teacher does not	Teacher provides	Teacher provides	Teacher
Confronting	provide either the	both the	detailed	provides
	description of how	description of how	description of	detailed
How did your	the challenging	the challenge was	how the	description of
solve that	situation was	resolved and what	challenge was	how the
challenge?	solved or the	was the result of	resolved and	challenge was
How effective	result that comes	that decision;	what was the	resolved. The
was your	after. On the other	however, there is	result of that	result of that

decision	hand, teacher gives a brief description of how the situation was resolved without the analysis of its effect.	no specific evidence from classroom to support the claims provided.	decision with an evidence from classroom to support the claim	decision is also described with two or more elaborated evidence from classroom to support the claim.
4. Supporting belief Why did you decide to solve the challenge that way?	Teacher avoids discussing the rationale behind the confronting action.	The focal point of teacher's discussion about principles and belief that support his/her confrontation is on prior personal teaching experience or teaching theories learned from teacher training classes.	The discussion about principles and belief that support teacher's confrontation decision suggests the incorporation of various viewpoints derived from supervisor, peers, students, etc. rather than restricting to personal experience and theories learned.	Teacher does not only discuss about principles and beliefs either they are drawn from prior personal experience, theories learned, or from others' viewpoints, but also evaluates whether to keep or to discard them.
5. Guiding questions How would you do things differently if the same challenge happens again?	Teacher either provides no future plan or provides completely unrelated plan regarding the challenging situation mentioned earlier.	Teacher proposes only a brief future plan that relates to the challenge mentioned without giving specific examples/details	Teacher proposes specific and detailed future plan that relates to the challenge mentioned.	Teacher does not only propose specific and detailed future plan that relates to the challenge, but also mentioned the change in his/her belief.

Appendix D

Classroom observation form

Name.....Observation number.....

[Date/Month/`	Year					
Ī	nstruction:	<u>This assessment</u>	is c	ons	truc	ted	using 4-scale scoring rubric. Please v
<u>i</u>	n the space	provided regard	ding	the	e ev	<u>ide</u>	nce seen in the teaching video clip
(0 = not visib	ole 1 = need im	npro	ver	nen	t	2= meet expectation 3= exceed
•	expectation						
	Teaching stages	Observation	Score				Evaluation criteria
	314363	domain	0	1	2	3	
	Planning Stage	1.1. Learning objectives setting	RSILON	ISC	(sur	112	 The objectives align with the terminal goal. The objectives are written using specific action verbs. The objectives clearly and specifically state measurable expected learning outcome. Score3: All of the criteria are met. Score1: 1 of the criteria is met. Score0: None of the criteria is met.
		1.2. Introductory activity design					 The activity aligns with the terminal goal. The activity is created in real world context. The activity is engaging and well-organized. The activity is designed to activate students' background knowledge on that

lesson.

					<i>Score3</i> : All of the criteria are met.
					Score2: 2 or3 of the criteria are met.
					<i>Score1</i> : 1 of the criteria is met
					Score0: None of the criteria is met.
					1. The activity introduces learning content
					that relevant to the learning objectives.
					2. The activity is situated in real world
					context.
					3. The activity is engaging, well-organized,
					and appropriate to students' level.
	1.3.			122	4. The activity maintains a good balance
	Presentation		9		between teacher's lecture and students'
	activity design		71		participation.
	1		(0)	4	Score3: All of the criteria are met.
				64	Score 2: 2 or 3 of the criteria are met.
					Score1: 1 of the criteria is met.
		2/9/			Score0: None of the criteria is met.
	8				The activity aligns with learning goals
	48				and provides opportunity to practice what
	ą w n Chula	างกรถ	ไมา	าวิ	was learned regarding the goals set.
		.ONGK	DRN	U	The activity is situated in real world
					context.
					3. The activity is engaging, well-organized,
					, 5 5 5
	1.4. Practice				and appropriate to students' level.
	activity design				4. Clear assessment criteria that align with
					learning goals are provided.
					Scara? All of the criteria are most
					Score3: All of the criteria are met.
					Score 2: 2 or 3 of the criteria are met.
					Score 1: 1 of the criteria is met.
					<u>Score0</u> : None of the criteria is met.

					<i>Score3</i> : Teacher <u>effectively employs more</u>
					than two teaching techniques to capture
					students' attention. <u>80%</u> of the students
					engaged in the introductory.
	2.1 Lesson introductory				Score2: Teacher employs two teaching techniques. 50-70% of students engaged in the introductory. Score1: Teacher simply relies on a weak single teaching technique to capture students' attention. Less than 50% engaged in the introductory. Score0: The lesson introductory is omitted,
		///3			or it is delivered so <u>briefly</u> that it cannot
Lesson					be assessed.
Presentation stage		2/0		2222E()	Score3: Teacher effectively employs more
stage	96		3000	1860	than two student-centered teaching
					techniques to deliver the content. The
	จหาล	งกรา	วันา	าาวิ	ratio of student's participation time and
	Сипа	UNCI	MRI		teacher's lecture time is <u>80:20</u> .
	OHOLAL	Unidi	WINN		IVERSITY
					Score2: Teacher employs two mixed
					teaching techniques of student-
	2.2 Learning				<u>centeredness and teacher-centeredness</u> to
	acti∨ity				deliver the content. The ratio of student's
					participation time and teacher's lecture
					time is <u>50:50</u> .
					<i>Score1</i> : Teacher <u>relies on only one</u>
					teacher-centered teaching technique to
					deliver the content. The ratio of student's
					participation time and teacher's lecture
					time is <u>80:20.</u>

					<i>Score0</i> : The activity is 100% teacher-led.
2.3 Classroom					Scores: Appropriate level of English is
communication					mostly used as the main teaching medium
Communication					while Thai us used just to clarify
					, ,
					complicated topic (<u>80:20</u>). The English
					language is <u>clear and concise.</u>
					<i>Score2</i> : English and Thai are <u>equally used</u>
					as the teaching medium (<u>50:50</u>). The
					English language is <u>rather clear but not</u>
				122	guite concise.
	78		9		<u></u>
			7		Score1: Thai language is used as the main
					teaching medium (80:20). Most of the
		1	()	4	English language used is <u>confusing.</u>
<i>></i>				4	
		10000	(6) A • 😂 >>	12) >>> ()	<i>Score0</i> : Thai language is 100% used as the
	- 14				main teaching medium.
2.4 Teaching					Score3: More two types of teaching
materials					materials such as relias, pictures, word
จุฬา	ลงเ	158	เมา	เาว	cards, and etc. are <u>effectively</u> used to
GHULA	LOR	IGK	ORN	U	enhance students' learning.
					Score2: two types of teaching materials are
					used; however, <u>some of them raise doubts</u>
					of how they could help supporting
					students' learning.
					<u>Score1</u> : Only one weak teaching material is
					used. It <u>mostly disengaged</u> students from
					their learning.
					Score0: No teaching material is used.
					Teacher relies on 'chalk-and-talk' method.

					It <u>completely disengaged</u> students from
					their learning.
	2.5 Classroom				Teacher is able to
	management				1. Consistently monitor students' learning
					and responsive to their problems.
					2. Effectively use positive strategies such as
					praise, rewards, constructive comment, and
					etc. to promote students' discipline.
					3. Fluidly manage instructional pace.
					<i>Score3</i> : All criteria are effectively
				130	employed
			Q		Score2: Teacher shows attempt to employ
			7		all criteria mentioned
				3	<i>Score1</i> : Teacher struggle to employ all
			0	2	criteria mentioned.
	<i>II</i>				<i>Score0</i> : All criteria are ignored.
	2.6 Lesson				<i>Score3</i> : Teacher <u>follows</u> the plan. The
	relevancy				modifications made are <u>effectively applied</u>
					to facilitate students' learning.
	จุฬา	ลงกรเ	นมา	113	Score2: Teacher follows the plan. The
	GHULA	LONGK	ORN	U	modifications made focus <u>on extending or</u>
					reducing instructional time rather than to
					facilitate students' learning.
					<i>Score1</i> : Teacher <u>overly attaches</u> to the
					plan with <u>no modifications</u> to help
					facilitate students' learning.
					<u>Score0</u> : Teacher <u>completely deviates</u> from
					the plan.
	2.7 Students'				<i>Score3:</i> Teacher gets more than 80%
	engagement				students highly involved in activities in
i e					

					<i>Score2</i> : Teacher attempts to get <u>50%-70%</u>
					of students to actively involve in activities.
					<i>Score1</i> : Teacher struggles to get students
					involve, but more than 80% of them are
					disengaged.
					Score0: Teacher mostly lectures to passive
					students or have them work through
			àri si	8	textbooks and worksheets.
2.8 Students'	8				<u>Score3</u> : Teacher <u>successfully</u> uses <u>various</u>
participation			8		types of techniques and questions to
2			7		sustain students' classroom participation.
_		////		\$	
		1	(0)	4	<u>Score2</u> : Teacher uses <u>one or two</u> types of
				4	techniques and questions to encourage
	1		(6) (2 • 50) (3)		students' classroom participation.
8					<i>Score1</i> : Teacher relies on <u>one ineffective</u>
46	/				technique. More than 80% of the students
จูฬา	ลงเ	ารถ	โมา	าวิ	M eta a et
Снига	וחו	IGK	DRN		are passive.
Olloth		CIIV	DILL		
					<u>Score0</u> : All of the students are passive.
2.9 Lesson					<u>Score3</u> : Teacher r <u>eviews</u> the content and
closure					connects the knowledge learned with
					students' real lives.
					<u>Score2</u> : Teacher <u>reviews</u> the content but
					did not connect the knowledge with
					students' real lives.
					<u>Socre1:</u> Teacher <u>briefly mentions</u> about
					the content learned.
					The some realities.

						<i>Score0:</i> Teacher <u>simply dismisses</u> the class.
	3.1 Assessment					Score3: Teacher continually checks for
	of students'					students' understanding. 80% of the
	background					students are able to answer teachers'
	knowledge					questions.
						Score2: Teacher checks for students'
						understanding. <u>50%-70%</u> of the students
						are able to answer teachers' questions.
			00		120	<i>Score1</i> : Teachers <u>rarely checks</u> for
		860		700 9/		students' understanding. <u>80%</u> of them are
		33333				not able to answer teachers' questions.
						<i>Score0</i> : Teachers <u>does not check</u> students'
			(3)			background knowledge at all.
	3.2 Summative					Score3: Teacher continually checks for
3. Lesson	assessment		[100000 200000	e (S) > 3 HEVD NO	2222() 2222()	students' understanding. 80% of the
assessment	94			20/0	32.00	students are able to answer teachers'
		/				questions.
	จูฬา	ลงเ	158	เมา	กวิ	ทยาลัย
	CHULA	LON	IGK	ORN	U	<u>Score2:</u> Teacher <u>checks</u> for students'
						understanding. <u>50%-70%</u> of the students
						are able to answer teachers' questions.
						<i>Score1</i> : Teachers <u>rarely checks</u> for
						students' understanding. 80% of them are
						not able to answer teachers' questions.
						The table to district couchers questions.
						<i>Score0</i> : Teachers <u>does not check</u> students'
						background knowledge at all.
	3.3 Formative					Score3: Teacher continually checks for
	assessment					students' understanding. 80% of the
						students are able to perform the expected

outcome.

Score2: Teacher checks for students' understanding. 50%-70% of the students are able to perform the expected outcome

Score1: Teachers <u>rarely checks</u> for students' understanding. <u>80%</u> of them are not able to perform the expected outcome.

Score0: Teachers <u>does not check</u> students' performance at all.



Appendix E

Consent form

INFORMED CONSENT STATEMENT

Blended learning supervision model to enhance English-majored student teachers' reflective ability and teaching performance

You are invited to participate in a research study. The purpose of this study is to develop a blended learning supervision model to be used in teacher supervision process, and to determine how effective does the model affect student teachers' reflective ability and teaching performance.

<u>Information</u>

This study will be conducted with English-majored student teachers for 14 weeks. These activities will be carried out:

- 1. The researcher will provide you with Consent Forms to be signed and returned to the researcher for your agreement to participate in video-taping during classroom observations, and for the video to be share in the online private teaching practicum group for other participants to watch. Only the student teacher who signed the form will be recorded.
- 2. The researcher will ask you to write and share reflective journals in the online private teaching practicum group.
- 3. The research will ask for your permission to audio-tape the individual interview conducted at the end of the research. The interview will take at most an hour, and will be scheduled with you at a time and place at your convenient.

<u>Risks</u>

No foreseeable risk or discomforts are expected for participants of this study.

Benefits

Your participation in this study may benefit the development of blended learning supervision model to enhance English-majored student teachers' reflective ability and teaching performance.

Confidentiality

Your identity will be kept confidential in the report. Quotations may be made using your responses to the interview questions and reflective journals, but these will be reported using pseudonym.

Participation

Your participation in this study is voluntary; you may refuse to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of your grade.

Consent

I have read this form and received a copy of it. I have had all my questions answered to my satisfaction. I agree to be video-recorded during classroom observation, to write reflective journal, and to have my video-recording as well as reflection be used as part of this research.

Subject's signature	Date	

Appendix F

List of experts

List of experts validating the research instruments and blended learning supervision framework

A. Expert validating blended learning supervision questionnaire

1. Ajarn Jiraporn Paranuwat

Lecturer, School of Liberal Arts, Walailuk University

2. Ajarn Saengkae Khonghuayrob

Lecturer, BNK International School

3. Ajarn Suriyong Limsangkass

Lecturer, Faculty of Education, Prince of Songkla University Pattani Campus

B. Expert validating blended learning supervision framework and semistructured interview questions

1. Ajarn Dr. Denchai Prabjandee

Lecturer, Faculty of Education, Burapha University

2. Ajarn Dr. Natthphon Santhi

Lecturer, Language Center, Chiangrai Rajabhat University

3. Ajarn Dr. Punyapa Saengsri

Lecturer, School of Liberal Arts, KMUTT

C. Expert validating teaching observation assessment and reflective ability scoring rubrics

- 1. Assistant Prof. Dr. Chansongklod Gajaseni Suthipibul Lecturer, Faculty of Education, Chulalongkorn University
- 2. Ajarn Dr. Sumanee Pinwaeha

Lecturer, Thai Airway

3. Ajarn Dr. Sasima Charubusp

Lecturer, School of Liberal Arts, Mae Fah Luang University



VITA

Miss Ponsawan Suphasri was born on 30 May, 1985 in Trang. She is a daughter of Pinit and Piewpan Supahasri. She graduated from Burararumluk School, Trang, Thailand in March 2003; and also received Bachelor of Education degree in Secondary Education with a first-class honor from Chulalongkorn University, Bangkok, Thailand in March 2007. Later in June 2007, she got a grant from the Royal Golden Jubilee (RGJ) Ph.D. programme and the Thailand Research Fund (TRF) to pursue her doctoral degree at English as an International Language program (EIL), Chulalongkorn University, Bangkok, Thailand.

