

The Effectiveness of the Writing Instructional Model Based on Blended and Self-Directed Learning on Promoting Student's Writing Ability and Self-Directed Learning

ประสิทธิผลของรูปแบบการเรียนการสอนเขียนโดยใช้การเรียนรู้แบบผสมผสานและการเรียนรู้แบบนำตนเองเพื่อส่งเสริมความสามารถทางการเขียนและการเรียนรู้แบบนำตนเอง

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Abstract

Developing self-directed learning along with language skills is one of ultimate goals of teaching and learning in this century. It is claimed that blended learning (BL) is one of innovative approaches of ELT can be used to reach that goal. This study, hence, aims to investigate the effectiveness of the writing instructional model based on blended and self-directed learning on promoting writing ability and self-directed learning of EFL university students with different levels of English proficiency (high, average, and low). The model used in the study was developed by the researcher and evaluated the quality by the experts and the pilot study. The instruments included writing pre-test and post-post, questionnaires for self-directed learning pre-assessment and post-assessment, and learning logs investigating self-directed learning in the aspects of self-management, self-monitoring, and motivation. The students' writing answer sheets were rated by two raters and Krippendoff's α (interval) inter-rater reliability reached almost perfect range (pre-test=.84, and post-test .87). The writing scores of the post-test of the students

in every group significantly increased from the pre-test scores ($p=.05$), and the results achieved very large effect size ($d=1.61$). The comparison of the scores among three groups found

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significant difference ($p=.05$). The high English proficient group gained the highest writing scores, followed by average and low English proficient students. The mean scores of self-directed learning post-assessments of all groups were significantly higher than the pre-assessment means ($p=.05$) in every aspect, and the effect size was high ($d =.83$), but self-directed learning of the students with three levels of English proficiency did not significantly differ ($p=.05$). The findings of learning logs showed that the students constructed essential knowledge for writing together with developing self-directed learning and other kinds of life skills. The study also provided suggestions for using the model.

Keyword: writing instructional model, blended learning, self-directed learning, writing ability

บทคัดย่อ

การพัฒนาการเรียนรู้แบบนำตนเองควบคู่กับทักษะทางภาษาเป็นหนึ่งในเป้าหมายสำคัญของการเรียนการสอน ในศตวรรษนี้มีการอ้างว่าวิธีการเรียนรู้แบบผสมผสานเป็นหนึ่งในนวัตกรรมการสอนที่สามารถบรรลุเป้าหมายนั้นได้ งานวิจัยนี้จึงมุ่งศึกษาประสิทธิผลของรูปแบบการเรียนการสอนการเขียนที่ใช้วิธีการเรียนรู้แบบผสมผสานและการเรียนรู้แบบนำตนเองในการส่งเสริมความสามารถทางการเขียนและการเรียนรู้แบบนำตนเองของนักศึกษาระดับปริญญาตรีที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศและมีความสามารถทางภาษาอังกฤษต่างกัน (สูง กลาง ต่ำ) รูปแบบการเรียนการสอนที่ใช้ในงานวิจัยนี้ได้รับการพัฒนาขึ้นโดยผู้วิจัยและการประเมินคุณภาพโดยผู้เชี่ยวชาญและการทดลองนำร่อง เครื่องมือเก็บข้อมูลคือแบบทดสอบการเขียนก่อนและหลังเรียน แบบสอบถามและแบบบันทึกหลังเรียนที่สำรวจการเรียนรู้แบบนำตนเองด้านการจัดการตนเอง การติดตามดูตนเอง และแรงจูงใจในการเรียน กระดาษคำตอบข้อเขียนได้รับการตรวจโดยผู้ประเมินสองคนและค่าความเชื่อมั่นระหว่างผู้ประเมิน (คริฟเฟนดอฟที่อัลฟา-มาตราอันตรภาค) อยู่ในระดับเกือบสมบูรณ์ (ก่อนเรียน = .84 และหลังเรียน = .87) คะแนนการเขียนจากแบบทดสอบหลังเรียนของผู้เรียนทั้งสามกลุ่มสูงขึ้นจากคะแนนจากแบบทดสอบก่อนเรียนอย่างมีนัยสำคัญ ($p=.05$) และมีค่าขนาดอิทธิพลสูงมาก ($d= 1.61$) การเปรียบเทียบคะแนนของทั้งสามกลุ่มพบว่ามีความแตกต่างอย่างมีนัยสำคัญ ($p=.05$) โดยผู้เรียนที่มีความสามารถทางภาษาอังกฤษสูงได้คะแนนสูงสุดถัดมาคือกลุ่มที่มีความสามารถทางภาษาอังกฤษปานกลางและต่ำ ค่าเฉลี่ยของการเรียนรู้แบบนำตนเองหลังเรียนของผู้เรียนทุกกลุ่มสูงกว่าค่าเฉลี่ยก่อนเรียนอย่างมีนัยสำคัญ ($p=.05$) และค่าขนาดอิทธิพลสูง ($d=.83$) แต่ไม่พบความแตกต่างอย่างมีนัยสำคัญระหว่างการเรียนรู้แบบนำตนเองของผู้เรียนทั้งสามกลุ่ม ($p=.05$) ข้อค้นพบจากแบบบันทึกหลังเรียนพบว่าผู้เรียนได้สร้างองค์ความรู้ที่จำเป็นในการเขียนควบคู่ไปกับการพัฒนาทักษะการเรียนรู้แบบนำตนเองและทักษะชีวิตด้านอื่นๆ การศึกษานี้ยังเสนอข้อเสนอแนะในการใช้รูปแบบการเรียนการสอนนี้อีกด้วย

คำสำคัญ: รูปแบบการเรียนการสอนการเขียน การเรียนรู้แบบผสมผสาน การเรียนรู้แบบนำตนเอง ความสามารถทางการเขียน

Introduction

It is broadly accepted that English has played prominent roles in education. It has become one of basic skills needed for acquiring new knowledge in the future (Graddol, 2006). In Thailand, the importance of English has been recognized since 1981. Since then, it has always been one compulsory subject in curricula of primary to tertiary level. Thai university students have to take two basic English courses and two more courses of English for Specific Purposes to fulfill bachelor's degree, and teaching has covered four areas: listening, speaking, reading, and writing (Darasawang, 2007).

Although English instruction in Thai universities has emphasized on four main skills, it was reported that writing is regarded to be one of the most difficult areas in English language learning for Thai undergraduates (Pawapatcharaudom, 2007; Wongsothorn, n.d.). It was found that the writing skills of the students were in low level. The students' main problems in writing included inability to write in limited time, incorrect use of grammar rules, and inappropriate arrangement of the contents.

However, writing is perceived as essential skill for profession, and education. It can enable career progress because it is one of the important skills required by employers (Walvoord, 2014). In academic contexts, writing helps extend students' language knowledge as it can be the great mean to study and practice using words and grammar rules correctly (Hammer, 2004

cited in Gordon, 2008). This kind of skill is used as the indicator of language competence. Writing is always included in English standard tests (e.g. IELTS and TOEFL) and the entrance or placement tests of many higher educational institutions all over the world (Agusten, 2011).

Apart from writing ability, another necessary skill for living in today's drastically changing world is self-directed learning or SD. Nowadays, people need to take part in education throughout their lives, so they should develop self-directed learning since it is conducive to lifelong learning. It is stated in 21st century that one component of expected student learning outcomes for life and career skills is self-direction. Individuals should be self-directed learners who show intention to perform lifelong learning process (The Partnership for 21st Century Skills, 2012). Moreover, there is connection between self-directed learning and writing ability (Orawiwatnakul & Wichadee, 2011; Siriwongs, 2015). It was suggested that self-directed learning activities which enabled students to plan, manage, and evaluate learning process with friends helps improve writing skill because students had chances to take responsibility in their learning process and gain more idea to write.

Self-directed learning (SD) is originally adopted in adult education (Fisher, King & Tague, 2001). At first, it was defined by Knowles (1975) as the learning process started and carried out by the learners themselves with or without assistance from others. To process their learning, the learners determine their own

learning needs, set up learning goals, choose material and learning resources, find and employ learning method, and evaluate their learning outcome. Fisher et al. (2001) described SD as an instruction method which the learners assume that they need to be responsible for their own learning. The term 'self-directed learning' may be used as the synonym of independent learning, autonomous learning, and self-study. According to Knowles (1975), independent learning, self-education, self-instruction, self-teaching, self-study, and autonomous learning strongly require learners to acquire knowledge in isolation. Those kinds of learning are usually connected with the learning courses which learners learn in prescribed manner, and little support, advice, or feedback are provided for them. On the other hand, SD involves with guidance and feedback from teachers, facilitators, mentors, or additional human interactions. Correspondingly, Hiemstra (1994) explained that in SD, the learners do not need to isolate from others, but they can learn from group work or chatting with peers. Also, teacher can involve with students' SD by interacting with them, providing them learning resources, and assessing their learning outcomes. Garrison (1997) added SD is related to cognitive process (i.e. self-monitoring), contextual process (i.e. self-management) and motivational dimension. Self-management is the management of learning tasks and learning process or what learners do when they are carrying on learning process. Self-monitoring refers to the process in which the learners take responsibility for self-

monitoring learning process, constructing new knowledge, and applying acquired knowledge for further learning, and motivation is the intention to initiate learning and keep effort on carrying on learning process, and it is related to students' perception on their learning. Hence, he defined SD as learning approach that the learners are motivated to take responsibility in learning, self-monitoring and self-managing processes in order to building up their meaningful learning outcomes.

Regarding the importance of writing skills and SD, there has been an attempt to find an approach which can empower teaching and learning English writing and enhance students writing ability and SD. Over the past ten years, blended learning approach has been introduced. Blended learning or BL is the teaching method in which combines face-to-face instruction with online learning mode (Allan, 2007). The central concept of blended learning is employing teaching in classroom as the basis of instruction and making use of internet-based and other educational technology as a complement to enrich teaching and extend learning experience outside class (Marsh, 2012). This approach has become well-known in ELT because of its characteristic and benefits. Face-to-face instruction is helpful for teacher and students to know each other better through person-to-person communication. The teacher can observe students' progress throughout the course, give feedback, and answer students' questions directly and immediately (McKenzie, 2000). On

the other hand, online learning mode permits learner to learn knowledge on their flexible and convenient time, and the interaction between teacher and students is extended outside class via online tools (Dennis, Bichelmeyer, Henry, Cakir, Korkmaz, Watson & Bunnage, 2006), so learning experience and social interaction are extended. BL requires students to take ownerships of their learning both in and out of class. The approach, hence, is productive as it can enrich teaching method, increase students' learning achievement and satisfaction (Inpin, 2015).

There have been the studies investigating the results of employment of BL to enhance students' writing achievement and SD. Liu (2013) evaluated the use application of BL in academic English writing course at a university of Beijing. The study revealed the BL was beneficial in terms of promoting students' writing skills, increasing interaction among class members and teacher, and developing independent learning. Pongto (2011) studied the effect of BL using local culture content on students writing ability. The results showed the increase of writing scores after learning in BL environment and the students expressed positive attitudes towards this teaching approach because it provided more chances to learn and they could set a plan for writing easily. Moreover, the effect of BL on developing SD was conducted by Sriarunrasmee, Techataweenan and Mebusaya (2015). They found that blended learning setting was effective on promoting SD because online learning mode

required students to learn on individuals' paces. Blended environment inspired students to learn more and made learning more convenient for them to reach learning goals.

Although there have been a number of studies conducted to study the effect of BL on students' writing proficiency and SD, less is known about the research on the impact of using writing instructional model which applies SD process to teaching procedures in BL environment. In addition, it is suggested that the results of implementation of BL can vary in different learning contexts (The Department of Education and Early Childhood Development, State of Victoria, 2012). This means more research in this area is still needed. The current study, therefore, examines the effectiveness of the writing instructional model based on blended and self-directed learning with the following objectives.

Research Objectives

1. To investigate the effectiveness of the writing instructional model based on blended and self-directed learning on enhancing writing ability of EFL university students with different levels of English proficiency
2. To investigate the effectiveness of the writing instructional model based on blended and self-directed learning on promoting self-directed learning of EFL university students with different levels of English proficiency

Methodology

1. Participants

The participants were 42 undergraduate first year English major students enrolling in section 7 of Progressive Reading & Writing course at the University of Phayao in the 2/2016 semester. They were classified into three groups depended on their percentage and grade point from Practical Reading & Writing course they enrolled in the previous semester.

2. Research Instruments

1. The writing instructional model based on blended and self-directed learning was developed based on related theoretical concepts (e.g. BL approach, SD, EFL writing, and instructional model), specific information of problems and opinions on teaching and learning English writing, and the synthesis of three models for instructional design. The model consisted of nine phases: 1) considering learning needs, 2) formulating objectives, 3) analyzing learning environment, 4) identifying instructional strategies, 5) selecting instructional technology, 6) determining teaching materials, 7) implementing the writing instruction, 8) evaluating, and 9) revising. Teaching and learning activities and content were delivered in two modes of instruction: face-to-face and online learning modes. The proportion of blending is 40% of face-to-face instruction and 60% of online learning. The instructional procedures were processed applying ABCME self-directed learning cycle (e.g. **A**nalyzing learning needs, **B**uilding up learning plans, **C**arrying out learning

plans, **M**onitoring learning performance, and **E**valuating learning process and outcomes). The students spent two hours per week for face-to-face classroom instruction and three hours per week for online learning through Edmodo, Google Docs, and Facebook.

2. The instructional manual was made up to present significant information about teaching materials, activities, teacher and students' roles, evaluation, and other helpful suggestions.

3. Two lesson plans for teaching writing descriptive essay were constructed based on the core concept of blended learning combining face-to-face and online instructional modes. Each lesson plan consists of topic, objective, time period, teaching methods, materials, instructional procedures, contents, and evaluation.

The instructional procedures applying SD cycle with brief details were as follows:

Stage 1: Analyzing learning needs (Face-to-Face)

- Analyzing of task requirements by specifying the type of writing assignment, a set of knowledge needed for completing the task, assessment, and students' needs on specific topic to write

Stage 2: Building up learning plans (Face-to-Face)

- Selecting topic to write, setting timeline for completing the task, developing outline as a writing plan, setting a plan to work on assignment with partner, and learning essential knowledge for writing.

Stage 3: Carrying out learning plans (Online Mode)

- Doing exercises to review and practice writing knowledge learned in the class through Edmodo

- Implementing writing plan by jointly working with partner on Google Docs to produce first, second, and final drafts, providing feedback on their peers' work and receiving comments on their writing samples from their peers

- Interacting with peers and teacher via chat room and discussion group on Facebook and Edmodo.

Stage 4: Monitoring learning performance (Online Mode)

- Self-monitoring learning performance using learning logs, self-assessing and revising essay.

Stage 5: Evaluating learning process and outcomes (Face-to-Face)

- Being provided feedback on the final draft by teacher, comparing multiple drafts of essay to see an improvement, and identifying the areas should be improve.

4. Face-to-face and online lessons were designed to prepare the content and material for two learning modes of blended learning environment.

5. The writing pre-test and post-test were to write three paragraph descriptive essays with 150-200 words. The tests employed the same kinds of essay with different topics. Pre-test's topic was describing place, and post-test's topic was describing people.

The analytic scoring rubric was adapted from Jacobs et al.'s ESL Composition Profile (1981, cited in Weigle, 2002) and criteria for assessment of writing quality of Augusten (2011). The rubric measured students' writing ability in five types of knowledge including content, organization, vocabulary, language use, and mechanics.

6. The SD questionnaires adapted from the studies of Abd-El-Fattah (2010), and Fisher, King, and Tague (2001) employed as tools for pre-assessment and post-assessment of students' SD. The instruments comprised three dimensions of self-directed learning based on Garrison's SD model: self-management, self-monitoring, and motivation. The 4-point Likert-type scale was adopted (a score of 1 denotes strongly disagree and score of 4 represents strongly agree). To provide the participants a better understanding of the content, the items were bilingual.

7. Learning logs with five guiding questions were used to elicit qualitative data of students' SD. Concerning to the data richness in the logs, the questions were bilingual, and the participants were allowed to write in either Thai or English language.

3. Validity and Reliability of the Instruments

1. The writing instructional model was evaluated the consistency of the model's phases and appropriateness of the phases' descriptions by nine experts.

2. The instructional manual and the lesson plans were assessed the appropriateness and completeness by three experts.

3. The face-to-face and online lessons were evaluated appropriateness of content, content presentation, and language use by three experts.

4. The writing prompts and scoring rubric were examined the appropriateness and validity by three experts, IOC value was in appropriate level at .50. Then they were revised based on the experts' suggestions, trialed in the pilot study, and established reliability utilizing the index of difficulty and discrimination of Whitney & Sabers (1970, cited in Hong, 2009). The level of pre-test and post-test difficulty (p) was in good scale at .47 and .41, respectively. The level of discrimination (r) of pre-test was .57 and post-test was .62. Both values were in very high discrimination range.

5. The questionnaires for self-directed learning were evaluated by three experts and IOC value (0.93) suggested high validity. Then they were tried out in the pilot study to verify reliability using Cronbach's Alpha, and the reliability was high (.78).

6. The prompt questions in learning log were evaluated validity by three experts and IOC result was .78. The prompts were revised based on the experts' comments and tried out in the pilot study.

4. Research Procedures

1. The participants were investigated self-directed learning using the questionnaire.

2. They were pretested their writing ability using writing test.

3. The orientation and training sessions were held to briefly introduce the background of writing instructional model, provide the students the understanding of teaching and learning activities, and knowledge of using online learning platforms.

4. The instruction was implemented for six weeks during January 20 – March 3, 2017, using the writing instructional model, the lesson plans and the lessons

5. The participants took the post-test examining writing ability.

6. Students' self-directed learning was investigated using the questionnaires.

5. Data Analysis

1. The writing pre-test and post-test were rated by two raters. Next, the web-based inter-coder reliability calculators named ReCal OIR developed by Freelon was utilized to figure out inter-rater reliability of Krippendorff's Alpha for interval variable.

To analyze and compare the writing scores from pre-test and post-test of the students with different levels of English proficiency, mean, standard deviation, paired t-test, and one way ANOVA were used.

2. The questionnaires for SD pre-assessment and post-assessment were analyzed employing mean, standard deviation, and paired t-test to compare self-directed learning of students with high, average, and low English proficiency before and after intervention using the developed model. One way ANOVA was used to compare SD of the participants in three groups.

3. The data from learning logs were analyzed using thematic analysis and coding method. Garrison’s SD comprehensive model (1997) was used as a framework to broadly identify three main themes: self-management, self-monitoring, and motivation. The guiding questions in the logs were classified into each theme according to the purpose of each prompt. The purposes of the questions also were used to determine the sub-themes of each major category. Next, the data were coded line-by-line, and the emergent codes were categorized to observe key

features of identified sub-theme. The guideline for determining SD characteristics was derived from the key words appeared in the statement of the SD questionnaire and the knowledge about SD from the literature review. The main themes with descriptions and subthemes were presented in table 1, and the guideline for identifying SD characteristics was demonstrated in table 2.

Table 1 Main themes with descriptions, sub-themes, and guiding questions from learning log

Main Theme and Description	Sub-theme	Guiding Question from Learning Log
Self-monitoring : The process in which the learners take responsibility for self-monitoring learning process and outcomes, constructing new knowledge, and applying for further learning by connecting previous concepts to recently acquired knowledge.	1. Constructing new knowledge	Q1) In learning English writing, what did you learn from both face-to-face classroom and online learning mode?
	2. Applying constructed knowledge for further learning	Q5) How will you use the knowledge of writing and evaluation results of your writing assignment in this unit to improve your learning in the next unit or in the future?
	3. Self-monitoring learning process	Q2) What problems did you face in learning English writing in blended environment?
Self-management : The management of learning tasks and learning resources (What learners do when they are carrying on learning process)	1. Managing learning process when having problems	Q3) What did you do when you faced the problems in learning English writing?
Motivation : The intention to initiate learning and keep effort on carrying on learning process.	1. Intention to carry on learning process	Q4) How did you feel when you faced problems or found your mistake in learning English writing?

Table 2 The guideline for identifying SD characteristics

Self-Directed Learning	Key Word
Self-Monitoring	...know weaknesses/mistakes/...realize weaknesses/mistakes ...learn from mistakes and improve learning/writing skills ...take control/responsibilities in learning process ...responsible for learning process ...self-evaluate/self-assess/self-check ...think/consider causes of problems in learning
Self-Management	...self-disciplined ...set up learning plans/goals ...manage/arrange learning time ...allocate time to learning ...can prioritize work ...can pursue/follow learning plan ...learn on my own pace
Motivation	...enjoy learning/challenging in learning ...happy to learn ...prefer/like learning from mistakes ...will try my best to find solution of problem in learning ...trust in my ability to learn/...believe I can learn

Findings

1. Findings One: The effectiveness of the writing instructional model based on blended and self-directed learning on enhancing writing ability of EFL university students with different levels of English proficiency

Table 2 The comparison of writing pre-test and post-test mean scores of all participants

Writing test	n	Inter-rater reliability			t	p	Cohen's d effect size
		Krippendorff's α (interval)	\bar{x}	SD			
Pre-test	42	.84	14.20	3.55	10.41	.000	1.607
Post-test	42	.87	18.18	4.25			

P < .05

Table 2 showed that the post-test mean score (\bar{x} = 18.18, SD= 4.25) was greater than pre-test mean (\bar{x} = 14.20, SD= 3.55), and the statistically significant difference between two mean scores was found at .05 level (t = 10.41, p = .000). Krippendorff's alpha reliability of pre-test was .84 and post-test was .87 which achieved almost perfect level according to benchmark of Landis and Koch

(1977, cited in Gwet, 2014). This indicated adequate agreement among the raters and the study had strong inter-rater reliability. Moreover, the results gained very large Cohen's *d* effect size ($d=1.61$). This meant the developed model had very high effect on students' writing ability.

Table 3 Comparison of mean scores of writing pre-test and post-test of students with high, average, and low English proficiency

Group	Writing Scores		\bar{x}	SD	<i>t</i>	<i>p</i>
One (High English Proficient Students) n= 18	Content & Organization (16)	Pre	8.39	1.78	8.162	.000
		Post	12.22	2.03		
	Vocabulary (4)	Pre	2.25	.55	5.772	.000
		Post	2.83	.45		
	Language Use (4)	Pre	2.47	.67	3.220	.005
		Post	2.89	.47		
	Mechanics (4)	Pre	3.03	.74	2.255	.020
		Post	3.44	.48		
	Total (28)	Pre	16.14	3.17	8.915	.000
		Post	21.39	3.05		
Two (Average English Proficient Students) n= 15	Content & Organization (16)	Pre	7.20	1.99	9.727	.000
		Post	10.00	2.20		
	Vocabulary (4)	Pre	1.90	.57	4.036	.001
		Post	2.27	.46		
	Language Use (4)	Pre	2.03	.67	.459	.653
		Post	2.10	.51		
	Mechanics (4)	Pre	2.67	.65	1.586	.135
		Post	2.93	.41		
	Total (28)	Pre	13.80	3.37	13.096	.000
		Post	17.30	3.19		
Three (Low English Proficient Students) n= 9	Content & Organization (16)	Pre	6.00	1.25	2.165	.062
		Post	7.61	1.60		
	Vocabulary (4)	Pre	1.50	0.43	2.294	.051
		Post	1.78	0.26		
	Language Use (4)	Pre	1.39	0.42	1.890	.095
		Post	1.67	0.35		
	Mechanics (4)	Pre	2.11	0.49	.316	.760
		Post	2.17	0.35		
	Total (28)	Pre	11.00	1.73	2.261	.054
		Post	13.22	1.60		

$P < .05$

Based on table 3, there were statistically significant differences between the mean scores of pre-test and post-test of high English proficient students in every feature and in total at .05. The means of all areas from post-test were higher than those from pretest.

The writing scores in every aspect of the average English proficient students appeared to go up after the intervention. There were significant differences between the means of pre-test and post-test of content & organization ($t= 9.727, p= .000$), vocabulary ($t= 4.036, p= .001$) and total scores ($t= 13.096, p= .000$), but there was no significant difference between

pre-test and post-test means of language use ($t= .459, p= .653$) and mechanics ($t= 1.586, p= .135$) at .05 level.

For the students with low English proficiency, the writing post-test scores were greater than the scores of pre-test in all features. However, at significant level .05, there were differences between the means of vocabulary of pre-test and post-test ($t= 2.294, p= .051$) and total scores ($t= -2.261, p= .054$), but there was no significant difference between pre-test means and post-test means of content & organization ($t= 2.165, p= .062$), language use ($t=1.890, p= .095$), and mechanics ($t= .316, p= .760$)

Table 4 The comparison of writing pre-test and post-test scores of the students with three levels of English proficiency

Writing Evaluation	Level of English Proficiency	n	Pre-Assessment				Post-Assessment			
			\bar{x}	SD	F	p.	\bar{x}	SD	F	p.
Content & Organization	High	18	8.39	1.78	5.702	.007	12.22	2.03	16.252	.000
	Average	15	7.20	1.99			10.00	2.20		
	Low	9	6.00	1.25			7.61	1.60		
Vocabulary	High	18	2.25	.54	6.031	.005	2.83	.45	19.894	.000
	Average	15	1.90	.57			2.27	.46		
	Low	9	1.50	.43			1.78	.26		
Language Use	High	18	2.47	.67	9.015	.001	2.89	.47	24.138	.000
	Average	15	2.03	.67			2.10	.50		
	Low	9	1.39	.42			1.67	.35		
Mechanics	High	18	3.03	.74	5.832	.006	3.44	.48	26.083	.000
	Average	15	2.67	.64			2.93	.42		
	Low	9	2.11	.48			2.17	.35		
Total	High	18	16.14	3.17	8.930	.001	21.39	3.06	25.310	.000
	Average	15	13.80	3.37			17.30	3.19		
	Low	9	11.00	1.73			13.22	1.60		

P < .05

According to table 4, one way ANOVA analysis indicated that there were statistically significant differences among three groups in all assessed areas in pre-test and post-test at .05. The high English proficiency students got the highest scores in every aspect, followed

by average and low English proficiency groups, respectively in both pre-test and post-test.

4.2 Finding Two: The effectiveness of the writing instructional model based on blended and self-directed learning on promoting self-directed learning of EFL university students with different levels of English proficiency

1. The findings from the questionnaires

Table 5 Comparison of the mean scores of pre-assessment and post-assessment SD

SD assessment	n	\bar{x}	SD	t	p.	Cohen's d effect size
Pre-assessment	42	2.82	.44	5.37	.000	0.83
Post-assessment	42	3.25	.33			

P < .05

According to table 5, the mean scores of SD post-assessment ($\bar{x}= 3.25$, SD= .33) were higher than pre-assessment ($\bar{x}= 2.82$, SD= .44), and there was significant difference between the

mean of pre and post assessment at .05 level. The study reached Cohen's d large effect size ($d=0.83$). This indicated that the model had high effect on students' SD.

Table 6 Comparison of the mean scores of SD pre-assessment and post-assessment of the students in three groups

Group	Self-Directed Learning Assessment	\bar{x}	SD	t	P.	
One (High English proficient students) n= 18	Self-management	Pre	2.77	.43	2.973	.009
		Post	3.17	.43		
	Motivation	Pre	3.02	.54	2.311	.034
		Post	3.37	.44		
	Self-monitoring	Pre	2.90	.55	2.713	.015
		Post	3.31	.37		
Two (Average English proficient students) n= 15	Self-management	Pre	2.74	.45	2.656	.019
		Post	3.17	.33		
	Motivation	Pre	2.97	.44	2.809	.014
		Post	3.39	.41		
	Self-monitoring	Pre	2.86	.48	2.330	.035
		Post	3.29	.38		
Three (Average English proficient students) n= 9	Self-management	Pre	2.56	.34	2.921	.019
		Post	2.94	.45		
	Motivation	Pre	2.68	.28	4.175	.003
		Post	3.19	.33		
	Self-monitoring	Pre	2.52	.47	3.305	.011
		Post	3.09	.24		

P < .05

Table 6 displayed that the mean scores from post-assessment in three evaluated aspects of the high, average, and low students were higher than pre-assessment, and there were

statistically significant differences between the means of pre and post assessment of all areas at .05 level. This meant students' SD increased after the intervention.

Table 7 The comparison of SD pre-assessment and post-assessment mean scores of the participants with three level of English proficiency

Self-Directed Learning	Level of English Proficiency	n	Pre-Assessment				Post-Assessment			
			\bar{x}	SD	F	p.	\bar{x}	SD	F	p.
Self-Management	High	18	2.77	.43	.829	.444	3.12	.42	.429	.654
	Average	15	2.74	.45			3.17	.33		
	Low	9	2.56	.34			3.03	.42		
Motivation	High	18	3.02	.54	1.720	.192	3.38	.44	.780	.465
	Average	15	2.97	.44			3.39	.41		
	Low	9	2.68	.28			3.19	.33		
Self-Monitoring	High	18	2.90	.55	1.765	.185	3.31	.37	1.045	.361
	Average	15	2.86	.48			3.29	.38		
	Low	9	2.52	.47			3.11	.22		

P < .05

Table 7 showed that the differences of all focused areas among three groups were not statically significant at .05 level both from pre-assessment and post-assessment. This suggested that the SD level of students with high, average, and low English competence was similar.

2. The findings from the learning logs

2.1 Self-monitoring

2.1.1 Subtheme: Constructing new knowledge

The key features of constructing new knowledge found from students logs were:

a) Essential knowledge of essay writing

The students reflected that they learned the steps of writing essay, content and idea organization, essay components, structure of each paragraph, characteristic of descriptive essay, new vocabulary and synonyms used for descriptive essay, and grammar rules. For example, they stated:

“I learned principle of English essay writing, essay components, and structure of each paragraph such as hook, thesis statement and supporting detail in introduction.”

“I learned that descriptive essay should give readers clear picture of person, place or event being described. I also learned steps to write the essay.”

“I learned correct sentence structures, the use of new vocabulary and synonyms to avoid repetition of word use.”

b) The knowledge of using technology in online learning

They learned how to use online learning platforms in reviewing the lessons, doing exercises, jointly working on assignment with their partner, and interacting with peers and teachers. For instance, they exposed:

“I learned to review lesson and extend learning by doing exercises online.”

“I learned to use online-based technology to work with peer without meeting each other face-to-face.”

“I learned to do exercises on Edmodo and use internet-based technology to communicate with friends and teacher about learning activities and assignments.”

c) Teamwork and collaboration skills

The students reported they learned to work, share, and exchange their opinions with friends. To illustrate, they revealed:

“I learned to share ideas and answers of exercises with my friends.”

“I learned to work in pair and exchange ideas with my partner.”

“I learned to work with my peer to make the writing tasks complete by composing essay, checking word use and word order together.”

d) Self-directed learning skills

The participants learned to set a plan, be responsible, be self-disciplined, and manage their time in learning. In illustration, they expressed:

“I learned on my own paces and need to be regularly responsible for my learning.”

“I learned to be self-disciplined in my learning.”

“Now I learned that before writing, I should set a plan what should be thesis or main idea of the essay.”

“I learned to manage my free time for learning.”

e) Critical thinking skill

Learning critical thinking skills by analyzing ideas and information for essay writing were mentioned.

“In writing essay, I learned to analyze information to find reason and results.”

2.1.2 Subtheme: Applying constructed knowledge for further learning

The key features included:

a) Improving writing skills and learning in the future

All students mentioned application the knowledge they learned from blended and self-directed writing instruction to improve writing skills. For example, they told:

“I’ll use knowledge I have gained to writing research report or blog.”

“I’ll apply knowledge of principle of writing essay and ideas organization to writing new assignment and other subjects.”

“I’ll use knowledge of punctuation, capitalization, the correct use of words in completing new assignment.”

b) Developing SD: self-monitoring and self-management

There were statements reflecting application knowledge to developing self-monitoring and self-management. This could be seen from examples:

“I’ll learn from my mistakes to improve the quality of new writing tasks.”

“I’ll apply knowledge to self-check and correct my essay.”

"I'll learn from my mistakes in the previous work such as wrong word use, and grammatical errors to improve my new written work."

"I'll use learning experience to set a plan for my learning in the future."

c) Developing critical thinking skill Applying knowledge and experience to developing critical thinking was stated.

"I will apply knowledge and learning experience to analyze information and gather ideas when I write essay."

d) Developing problem-solving skill Application learning experience to developing problem-solving skill was found.

"I will apply experience of logically organizing ideas for writing to finding solution of problems in real life."

2.1.3 Subtheme: Self-monitoring learning process

When the students were asked to self-monitor their problems in learning, the key features emerged from the logs included:

a) Limited knowledge of English language Most students stated problems of limited knowledge of English language such as narrow vocabulary range, incorrect use of words, grammatical errors: wrong tenses and word order in sentences. To illustrate:

"I couldn't communicate my ideas clearly because I have limited range of vocabulary"

"I have limited knowledge of vocabulary. When I wrote I didn't know how to use words appropriately, and I didn't understand English

sentence structures because the structures of Thai and English sentence are different."

"I had problems in selecting right words for the right context and using wrong verb tenses or writing sentence without verbs."

b) Shortage of ideas to write The students exposed:

"Sometimes, I didn't have ideas for writing thesis statement."

"I didn't have ideas to give examples to support the main ideas in my essay."

c) Internet Accessibility The students explained:

"I had problems in learning online because of slow and choppy internet connection at my dorm."

"Choppy and slow internet connection caused problems in doing exercises and writing tasks online."

d) Using technology in learning It was described:

"I had problem in turning writing task via online learning platform."

"I had problems when I wrote in Thai and use web-based translation tools to translate in English. After getting the translated text, I rechecked word meanings and found that they were not in the way that I wanted."

e) Collaboratively working in pair The participants disclosed:

"My time to work on assignment online didn't match with my friends."

"My partner and I didn't agree on the ideas to write essay."

2.2 Self-management

Subtheme: Managing learning process when having problems

Key features of dealing with difficulties in learning process reported by the students including putting attempts to solve problems by themselves and calling for assistance from others.

a) Trying to address problems on their own

To deal with difficulties in learning resulted from their own language competence the students self-studied vocabulary and grammar from other resources, reviewed the lessons, practiced writing skills, and previewed new lesson. They explained:

“I reviewed the lesson back and forth until I clearly understood.”

“I put more effort on studying vocabulary and grammar from books and internet.”

“I studied content of the next unit and did exercises before attending the class so that I could understand the lesson well.”

“I searched information on the internet and learned from my mistakes, and tried to correct them.”

To solve problems of internet accessibility, the students told:

“I use the personal hotspot in my phone to connect the internet instead of using Wifi connection of the dormitory.”

For the problems of working in pair, they exposed:

“I made appointment with friend to go online and work on assignment together because if we work online concurrently, we can finish assignment faster.”

“When we disagreed on the ideas to write, I tried to accept that everyone is different and adjust my thought in order to maintain our relationship and could be able to finish the task together.”

b) Asking for assistance from others

The students also sought for help from their peers and teacher. For example, they mentioned:

“I asked friends to help check the correctness of my work.”

“I asked for comments from the teacher.”

“I asked the teacher or friends for more explanation on that point.”

2.3 Motivation

Subtheme: Intention to carry on learning process

When the participants faced problems in learning English writing with the model based on blended and self-directed learning, although they felt discouraged, most of them showed strong intention to keep going on learning and believed it could help improve their writing ability. For instance, they expressed:

“I was discouraged, but I tried my best to learn, I believed I could do it!”

“I felt good to know my own mistakes because I could learn and improve my writing ability from them.”

“Sometimes I felt tried and discouraged, it was good to learn my own problems and try to fix it.”

“When I made mistakes, I thought I should learn from them and keep practicing writing to improve my ability.”

Conclusion and Discussion

The overall results of the study showed that there was significant increase of the students' writing scores at .05 level, and the effect size was very large at 1.607. This indicated that the model was effective in enhancing students' writing ability. The investigation of writing scores of the participants with different levels of English proficiency after intervention showed that post-test mean scores of high English proficient group were significantly greater than the means from pre-test in all evaluated areas. For average English proficient students, their scores rose in every kinds of knowledge, but there was significant rise in the aspects of content & organization, and vocabulary whereas the group of low English skill gained higher scores from post-test than pre-test, but there was the statistically significant growth in knowledge of vocabulary only. The results of one way ANOVA analysis comparing the writing scores of the students from three groups were significantly different. The high English proficient students got the highest scores in all types of knowledge, followed by average and low English proficient students in both pre-test and post-test.

This pointed out that the students with higher English proficiency could improve their writing ability better than those with lower proficiency. This may result from students' English language knowledge. The students with high proficiency had more prior knowledge, so they could write better than those with less background knowledge. This lent support to the previous studies (Ka-kan-dee & Kaur, 2014; Al-Khasawneh, 2010 ; Mourtaga, 2010 cited in Adas and Bakir, 2013; Pawapatcharaudom, 2007) which unveiled that low background knowledge of grammar rules and inadequate vocabulary led to low writing achievement.

The evaluation of the model effectiveness on promoting students' self-directed learning presented that the mean scores of post-assessment increased from pre-assessment at significant level .05, and the Cohen's d effect size was large at .828. The statistical analysis showed that after learning with the writing instructional model, all dimensions of self-directed learning (e.g. self-management, self-monitoring, and motivation) of the students with three levels of English proficiency were significantly grew at .05 level. This meant the model was productive in developing students' SD. Nonetheless, one way ANOVA results found no significant difference of all focused areas among three groups at .05 level both from pre-assessment and post-assessment. The students with different levels of English proficiency displayed similar level of SD, especially high and average English proficiency students' SD levels were very close.

The results from quantitative data analysis were asserted by the findings from students' log entries. It was found that the blended and self-directed learning based instructional model for English writing enabled students to learn basic knowledge for essay writing such as essay components and organization, vocabulary, and grammar features in face-to-face classroom and expanded their learning outside class by reviewing lesson, practice writing by doing exercises and writing assignment online. What is more, they concurrently learned to be more responsible and self-disciplined in learning, allocate time to learn on their own, plan for working on writing tasks, and self-evaluate their work before submitting. The students mentioned the plan to apply learning experience to setting learning plan for new assignment, managing learning time for next unit, self-assessing new writing tasks, and learning from mistake to improve their English writing skills. In carrying on learning process, students needed to self-study from grammar books or internet-based resources, preview the next unit, and call for help from teacher or friends to deal with problems they faced in learning. Although learning English writing through blended and self-directed learning setting was challenging and not easy for them because they lacked of experience in using online learning platforms and had limited knowledge of English language, they still expressed strong motivation in learning.

The aforementioned findings of present study proved that the writing instruction model employing blended delivery modes and the

steps in self-directed learning cycle was practical and productive for improving writing and self-directed learning skills of the students with all level of English competence. The model could enhance teaching and learning effectiveness and enlarge learning opportunities. this could be the reason that the present model was systematically constructed with the concern of possible factors related to instruction such as the needs and problems on teaching and learning English writing, theoretical concepts supporting the model development, teacher and learners' roles, learning modes and process, and learning facilities. Moreover, the model and related instructional documents were evaluated the quality by nine experts, tried out in the pilot study, and revised before implementing.

Another reason could lead to high efficiency of the model was an adaptation of self-directed learning cycle into teaching procedures requiring students to accept responsibility for their learning both inside and outside class. The analyzing learning needs stage provoked students' interests and motivated them to assume responsibility in their own learning by analyzing the needs of writing tasks (task requirements) and their own needs on the topics to write. This could reduce the problems of misinterpreting task instructions and helped students to produce written work which meet unit objectives. The building up learning plans step encouraged students to become more responsible for their own learning by having them to take part in setting learning plans (e.g.

making agreement on submission due date, and developing outline as a plan for writing essay), discussing on process and evaluation method, and acquiring essential knowledge for learning and working on online learning mode. In carrying out learning plans stage students were allowed to take ownership of their learning by implementing their writing plans and reviewing lesson they learned in class via online learning platforms. The monitoring learning process and outcomes provoked them to monitor and self-reflect on their own learning tasks by using assessment forms and learning logs. Finally, in evaluating learning performance and outcomes stage, students were asked to evaluate their progress and improve their learning based on evaluation and feedback on multiple drafts of their written work. This could be supported by the studies of Siriwongs (2015) and Orawiwatnakul & Wichadee (2011) discovering the benefit of self-directed learning on promoting students' language proficiency. The research proposed that when the students were given chance to accept responsibility in planning, managing, and monitoring their learning process as well as evaluating their learning outcomes their reading and writing ability could be improved.

The findings were consistent with previous studies which found favorable results of blended learning approach on enhancing writing skills (Adas & Bakir, 2013; So, 2013; Liu, 2013; Pongto, 2011). Those studies posited that face-to-face learning mode of blended environment provided high quality of interaction. Students

could communicate with teacher in person, and they could ask for elaborations on the points that they did not understand, or suggestions on revising of their work spontaneously. Online learning setting helped teachers to solve problems of insufficient practices of writing skills because online tasks could be added to regular in-class learning activities, and learning through materials uploaded to the internet could increase students' motivation. The students had a plenty of opportunity to produce and revise their multiple drafts via online learning complemented to classroom learning. The interaction among students and teacher increased because it was not limited in classroom only but the communication could be done outside class via online tools. This also decreased students' anxiety in interacting with teachers. Moreover, Sriarunrasmee, Techataweenan, and Mebusaya (2015) reported that blended learning environment could effectively promote students self-directed learning because they were inspired to learn more on their own pace to achieve learning goals, and online tools such as E-learning and social network facilitated them to conveniently learn.

In addition to the effectiveness on enhancing writing ability and self-directed learning, there was evidence from the log entries exposed that when participants learned through the writing instructional model based on blended and self-directed learning, they were trained in other kinds of life and careers skills including using new technology in learning, teamwork

and collaboration, critical and problem-solving skills. Lalima (2017) suggested that learning in blended environment helped students to experience in making use modern technology and acquire important life skills such as self-management, critical thinking, and decision-making. Correspondingly, Siriwongs (2015) stated self-directed learning could provide students experience of confronting and solving problems that they might face in real situation.

Suggestions

It could be seen that the writing instructional model based on blended and self-directed learning was effective on promoting students' writing ability and SD, but there were some concerns need to be taken into consideration. According to the learning logs, in addition to problem of their own insufficient English language proficiency (e.g. knowledge of vocabulary and grammar), the other difficulties the students faced in learning English writing in blended and self-directed learning environment were internet accessibility and using technology in learning. The students reported that unstable

internet connection and complicated steps of using learning platforms in doing and turning in learning tasks obstructed their learning. To keep students engage in learning activities and help them handle with the learning obstacles, online communicative channel for the interaction among students and teacher should be provide throughout the course in order to provide support both in and out of class when the students confronted problems or needed help from their peers or teacher. For better understanding of task requirements, how to use online platforms in learning, learning and doing assignments on their own, they should be trained in using the learning tools at the beginning of the course and the side-bar instruction or manual with clear explanation and steps of using technology and learning out of class should be provided. Also, to facilitate students' learning, the internet access with strong Wifi signal should be provided throughout the area of the university and public computer should be available in learning center of the campus for the students who do not have private notebook or PC.

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